September 2016 - November 2016
Volume 34 Issue 1

AJAN

australian journal of advanced nursing

An international peer reviewed journal of nursing research and practice

34:1

IN THIS ISSUE

RESEARCH PAPERS

SCHOLARLY PAPERS

THE AUSTRALIAN JOURNAL OF ADVANCED NURSING

The Australian Journal of Advanced Nursing aims to provide a vehicle for nurses to publish original research and scholarly papers about all areas of nursing. Papers will develop, enhance, or critique nursing knowledge and provide practitioners, scholars and administrators with well-tested debate.

The AJAN will:

- publish original research on all nursing topics
- publish original scholarly articles on all nursing topics
- process manuscripts efficiently
- encourage evidence-based practice with the aim of increasing the quality of nursing care
- provide an environment to help authors to develop their research and writing skills
- provide an environment for nurses to participate in peer review

ISSN 1447-4328

Indexing
The AJAN is indexed in the CINAHL (Cumulative Index to Nursing and Allied Health Literature) Database, Current Contents, International Nursing Index, UnCover, University Microfilms, British Nursing Index, Medline, Australasian Medical Index and TOC Premier.

PRODUCTION

Editor
Lee Thomas

Journal Administrator
Anne Willsher

Publisher and Editorial Office
Australian Nursing and Midwifery Federation
PO Box 4239
Kingston ACT, Australia 2604
tel +61 2 6232 6533
fax +61 2 6232 6610
email: ajan@anmf.org.au
http://www.ajan.com.au

AJAN
australian journal of advanced nursing

September 2016 - November 2016
Volume 34 Issue 1

CONTENTS

RESEARCH PAPERS

SCHOLARLY PAPERS

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: AUSTRALIA

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: INTERNATIONAL

Knowledge, attitudes and practices relating to fertility among nurses working in primary health care

AUTHORS

Karin Hammarberg
RN, BSc, PhD
Senior Research Fellow, Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, 549 St Kilda Road, Melbourne, Victoria, Australia
karin.hammarberg@monash.edu

Lisa Collison
RN, Grad Dip Nurs Sci GP
Professional Development Coordinator, Australian Primary Health Care Nurses Association, Level 2/159 Dorcas Street, South Melbourne, Victoria, Australia
lisa.collison@apna.asn.au

Lisa Collison
RN, Grad Dip Nurs Sci GP
Professional Development Coordinator, Australian Primary Health Care Nurses Association, Level 2/159 Dorcas Street, South Melbourne, Victoria, Australia
ljohnson@varta.org.au

Hau Nguyen
B Econ
Project Officer, Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, 549 St Kilda Road, Melbourne, Victoria, Australia
hau.nguyen@monash.edu

Jane Fisher
BSc (Hons), PhD, MAPS
Director, Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, 549 St Kilda Road, Melbourne, Victoria, Australia
jane.fisher@monash.edu

ACKNOWLEDGMENT

The authors wish to thank the nurses who completed the survey.

KEY WORDS
practice nurses, primary health care, health promotion, fertility, reproductive health

ABSTRACT

Objective
To explore knowledge, attitudes and practice relating to factors that affect fertility among nurses working in general practice and other primary health care settings.

Design
Anonymous online survey.

Setting
Primary care.

Subjects
Members of the Australian Primary Health Care Nurses Association (APNA). Main outcome measures: Fertility-related knowledge, attitudes and practice.

Results
102 individuals completed the survey. More than half overestimated the age when male and female fertility declines and the chance of women conceiving with IVF. Most knew that smoking affects a man's sperm but only one quarter that smoking halves a woman's fertility. The majority recognised obesity and STI's as detrimental for fertility and agreed that educating patients about fertility is part of primary health care nurses' role to ask people of reproductive age about their reproductive life plan and alert them to the factors that influence fertility. The most commonly cited barrier for discussing fertility with patients was perceived lack of knowledge about the subject.

Conclusion
This study identified opportunities and barriers for nurses working in primary health care to proactively discuss fertility and the factors that influence the chance of conceiving with their patients. Appropriate educational resources to improve knowledge and support from general practitioners (GPs) can enable nurses working in general practice and other primary health care settings to provide effective fertility related education as part of their role as health promoters.

INTRODUCTION

Most people want and expect to have children some time in their life (Holton et al 2011a; Langdridge et al 2005). For some, life circumstances beyond their personal control such as the lack of a partner, chronic illness or infertility, prevent them from realising this life goal (Holton et al 2011b). For others however, potentially modifiable factors reduce their chance of having children or the number of children they wished to have. These include parental age, body weight, tobacco use, and knowledge about the time in the menstrual cycle when a woman is able to conceive (Homan et al 2007; Wilcox et al 1995).

Female fertility starts to decline around age 32 and the decline becomes more rapid after age 35. Between the ages of 30 and 40 the monthly chance of conception for women decreases from 20% to 5% (Cooke and Nelson 2011). Male age also influences fertility; a study of more than 8,000 pregnancies found that, after adjusting for female age, conception during a 12-month period was 30% less likely for men over the age of 40 compared with men younger than 30 years (Hassan and Killick 2003). The common belief that assisted reproductive technology (ART) treatment such as in-vitro fertilization (IVF) can overcome age-related infertility is erroneous. In 2012 in Australia and New Zealand the chance of a live birth per initiated treatment cycle decreased from 24.8% for women aged between 30 and 34 years to 6.1% for those aged between 40 and 44 years (Macaldowie et al 2014).

The negative impact on fertility and reproductive outcomes of parental obesity and tobacco use is also well documented (Lane et al 2014; Homan et al 2007). Conversely, knowledge about the fertile time in the menstrual cycle and timing intercourse to coincide with this increases the chance of and reduces the time to pregnancy (Stanford 2015).

Studies of people's knowledge about factors that influence fertility consistently point to considerable knowledge gaps (Bunting et al 2013; Hammarberg et al 2013). It has been suggested that GPs should promote knowledge about the impact on fertility of age and lifestyle factors (RACGP 2012; Chapman et al 2006). However, barriers, including time constrains, can prevent GPs from proactively discussing reproductive planning with their patients (Mazza et al 2013). More than 60% of Australia's general practices employ one or more Practice Nurses and their role includes health promotion and lifestyle education (APNA). As experts in preventive care, nurses working in general practice and other primary health care settings are well placed to promote awareness about factors that influence fertility to help people of reproductive age achieve their reproductive goals. However, it is not known whether nurses working in primary health care have sufficient knowledge about fertility or believe that it is part of their role to discuss fertility with their patients.

'Your Fertility' is a national, public education program to improve knowledge about factors that affect fertility and pregnancy health to allow people to make timely and informed decisions about childbearing. It is funded by the Australian Government Department of Health and the Victorian Department of Health and Human Services (Your Fertility). One of the aims of the program is to support primary health care professionals with educational resources to help them discuss reproductive life planning and fertility with their patients.

To inform the development of resources for nurses in primary health care the aim of this study was to establish what nurses working in general practice and other primary health care settings know about factors that influence fertility; whether and under what circumstances they talk to patients about fertility and reproductive life planning; and what resources might help them start a conversation about fertility with their patients.

METHOD

The study was approved by Monash University Human Research Ethics Committee.

Study population

This was an anonymous online survey. An invitation to take part in the study and a link to the survey was advertised in the Australian Primary Health Care Nurses Association's (APNA) e-newsletter in October and November 2014.

Material

The study-specific questionnaire included demographic characteristics and fixed-choice response questions gauging: knowledge about factors that influence male and female fertility; attitudes about the role of nurses in fertility health promotion; and practice relating to fertility health promotion.

Data management and analysis

Data were analysed in SPSS for Windows v 20 using descriptive statistics and Student's t-test to test for differences between group means. Participants' correct responses to the 13 knowledge questions were added to produce a score with a possible range of 0 to 13. Mean scores were compared between: age-groups (<45 versus ≥ 45 years); geographic location (urban versus regional/rural/remote); and type of organisation (general practice versus all others).

FINDINGS

The survey was completed by 102 respondents. Their characteristics are shown in table 1.

Table 1: Characteristics of respondents (*n=102)*

Characteristic	No (%)
Female	100 (98)
Male	2 (2)
Age group	
<35 years	19 (19)
35-44 years	20 (20)
45-54 years	35 (34)
55-64 years	26 (26)
65 years or older	2 (2)
Current professional qualification	
Registered nurse/Registered midwife	82 (81)
Enrolled nurse	7 (7)
Nurse practitioner	1 (1)
Other	12 (12)
Practicing state	
ACT	2 (2)
NSW	42 (41)
Qld	10 (10)
SA	2 (2)
Tas	3 (3)
Vic	42 (41)
WA	1 (1)
Practicing setting	
Urban	46 (45)
Regional/Rural	53 (52)
Remote	3 (3)
Type of organisation	
General practice	77 (76)
Community controlled health services	15 (15)
Other	10 (10)

Responses to the knowledge questions are displayed in table 2. The mean score for correct answers to the 13 questions was 7.2. More than 1 in 5 respondents (22%) scored <6, 75% scored between 6 and 10, and only 3% scored >10. There were no statistically significant differences in knowledge scores relating to respondents' age, geographical location or the type of organisation they worked in. More than half of the respondents overestimated or were unaware of the age when female and male fertility start to decline. Most respondents knew that smoking affects a man's sperm but only one quarter correctly identified that smoking halves a woman's fertility. Obesity and sexually transmitted infection (STIs) were recognised by almost all respondents as detrimental for fertility. While only just over half of the respondents were aware that having irregular menstrual cycles reduces a woman's fertility, more than three quarters correctly identified the fertile window in the menstrual cycle. A majority of respondents overestimated or stated that they did not know the chance of a live birth after one IVF treatment cycle.

Table 2: Respondents' fertility-related knowledge

Question (bold denotes correct answer)	**N (%)**
How would you rate your knowledge about factors that influence fertility	
Confident/fairly confident I know what I need to know	19 (19)
I wish I knew more/I know very little	83 (81)
At what age does female fertility start to decline	
<30 years	8 (8)
30-34 years	**35 (34)**
≥ 35 years/ Age doesn't matter/Don't know	59 (58)
At what age does male fertility start to decline	
< 40 years	19 (19)
40-44 years	**18 (18)**
≥ 45 years/Age doesn't matter/Don't know	65 (64)
Does smoking cigarettes reduce a woman's fertility	
No/ Not if she smokes <10 cigarettes per day	3 (3)
Yes, smoking reduces fertility by 10%	74 (73)
Yes smoking halves the chance of pregnancy	**25 (24)**
Does passive smoking reduce a woman's fertility	
No/Don't know	28 (27)
Yes, a bit	37 (36)
Yes as much as active smoking	**37 (36)**
Does smoking affect a man's fertility	
No/Don't know	11 (11)
Yes smoking affects a man's sperm	**91 (89)**
Does obesity reduce a woman's fertility	
No/Maybe	6 (6)
Yes	**96 (94)**
Does obesity affect a man's fertility	
No/Maybe/Don't know	26 (25)
Yes	**76 (75)**
Can STIs affect a woman's fertility	
No/Maybe	3 (3)
Yes	**99 (97)**
Can STIs affect a man's fertility	
No/Maybe/Don't know	17 (17)
Yes	**85 (83)**
Does having irregular cycles (>6 weeks between periods) reduce a woman's fertility	
No/Maybe/Don't know	49 (48)
Yes	**53 (52)**

If a woman has 28 day cycles, when is she most likely to conceive	
Day 1-5	2 (2)
Day 6-10	2 (2)
Day 11-15	**77 (75)**
Day 16-20	15 (15)
Day 21-25	2 (2)
It can happen any time	2 (2)
Don’t know	2 (2)
What is the chance of having a baby with IVF after one treatment cycle for women aged less than 35 years	
35%/45%/Don’t know	73 (72)
15%	14 (14)
25%	**15 (15)**
What is the chance of having a baby with IVF after one treatment cycle for women aged between 40 and 44 years	
18%/27%/35%/Don’t know	57 (56)
9%	15 (15)
7%	**30 (29)**

Respondents’ attitudes towards nurses working in primary health care engaging in fertility health promotion are shown in table 3. Almost universally respondents agreed that it is part of their role to ask people of reproductive age about their reproductive life plan and alert them to the factors that influence fertility. The most commonly cited barrier for discussing fertility with patients was perceived lack of knowledge about the subject.

Table 3: Respondents’ attitudes towards providing fertility education

Question	**N (%)***
Is it the role of nurses to ask people of reproductive age about their ‘reproductive life plan’?	
Yes	75 (75)
Yes, but only if the patient brings up the subject	17 (17)
No/Don’t know	8 (8)
Is it the role of nurses to discuss factors that affect fertility with people of reproductive age?	
Yes	48 (48)
Yes, if the patient brings up the subject	46 (46)
No/Don’t know	6 (6)
In your view, what are the barriers for discussing fertility with patients?#	
Lack of knowledge	65 (64)
Time constraints	53 (52)
Difficult to bring up unless asked	35 (34)
Not part of Nurses’ role	8 (8)

*Not all participants responded to all questions, percentages are of those who responded

More than one could be endorsed

Less than one third of respondents stated they felt confident about their level of knowledge about fertility. In spite of this, almost half discussed fertility with patients in their daily practice, either routinely or opportunistically when consulted about reproductive health matters (table 4). Almost all respondents agreed access to fertility related information would enhance their confidence about talking to patients about fertility. Fact sheets to give to patients and a trustworthy website to refer them to for more information were resources most respondents believed would help them talk to patients about fertility in their daily practice.

Table 4: Respondents' fertility health promotion practices

Question	N (%) *
In your daily practice, do you bring up the subject of fertility with patients?	
Routinely	3 (3)
Opportunistically when consulted about reproductive health matters	42 (45)
Only when patients ask for advice	58 (52)
Do you feel confident in your level of knowledge about fertility to bring up the subject with patients?	
Yes	28 (30)
No/Don't know	65 (70)
Would access to more information about fertility make you more confident to talk to patients about fertility?	
Yes	87 (94)
Which of the following resource would help you talk to patients about fertility?#	
Webinar (live, interactive internet-based information session)	34 (33)
Information session in Podcast format	25 (25)
Fact sheets to give to patients	85 (83)
Trustworthy website to refer patients to	73 (72)

*Not all participants responded to all questions, percentages are of those who responded

More than one could be endorsed

DISCUSSION

This study identified opportunities and barriers for nurses working in primary health care to proactively discuss fertility and the factors that influence the chance of conceiving with their patients. Opportunities include the findings that most respondents believed it is part of their role to educate people about fertility and almost half do this in their daily practice. This suggests it is feasible to expect nurses working in general practice and other primary health care settings to incorporate fertility education in their health promotion repertoire. Obvious barriers are the apparent existing knowledge gaps and the self-reported lack of knowledge and confidence about discussing fertility with patients.

The most concerning knowledge gaps relate to the impact of age on fertility. Firstly, more than half of respondents overestimated or were unaware of the age when male and female fertility declines. Secondly, the majority of respondents overrated the chance of younger and older women giving birth as a result of one IVF treatment cycle. Perceptions that the reproductive life-span is becoming longer and that IVF can overcome age-related infertility are reinforced by media reports of women (often celebrities) having 'miracle babies' late in life. The reality is that the chance of having a baby with IVF after age 40 is minuscule (Macaldowie et al 2014).

Keleher et al (2007) assert there is insufficient information about the scope of general practice nurses' practice and its outcomes and argue for an 'educational framework to advance nurses' skills and knowledge' (p108). Such a framework should include education about fertility, the role of lifestyle factors in reproductive outcomes, and the limitations of reproductive technologies such as IVF in overcoming age-related infertility. This would provide nurses with the knowledge they need to talk confidently about fertility-related matters and discuss reproductive life planning with their patients.

APNA recently developed a 'Family Planning Decision Support Tool' with funding from the Australia Government Department of Health to assist primary health care nurses in their consultations with patients to promote effective family planning throughout reproductive life (APNA). This tool includes comprehensive information about the factors that influence fertility and what to discuss with women and men who attend for a preconception health check. While this is a step in the right direction, fertility-related information and advice should also be offered to people who are not currently planning pregnancy but may wish to have children in the future to allow them to make informed decisions about how they prepare for and time childbearing.

This study has strengths and limitations. There is no way of knowing if respondents were representative of all nurses working in primary health care. However, they included people from all Australian states and territories (except Northern Territory) who were diverse in terms of age, and the settings and types of organisation they worked in. Online surveys do not allow detailed exploration but they are a feasible tool for research questions which require broad, summary, information relating to a particular matter in groups with specific characteristics. They are cheap to undertake, easy for respondents to complete, and likely to generate honest responses when they are anonymous.

The findings of this study have informed the development of resources to help nurses working in primary health care settings discuss modifiable factors that influence fertility with their patients. These are housed on the ‘Your Fertility’ website and include educational webinars, videos, podcasts and factsheets; a Think GP module; links to relevant clinical guidelines; and factsheets for lay audiences that can be downloaded and shared with patients (Your Fertility). Future initiatives will target specific knowledge gaps identified in this study and through collaboration with APNA these will be disseminated to nurses in general practice and other primary health care settings throughout Australia.

As experts in preventive care, nurses working in primary health care are well placed to promote awareness about factors that influence fertility and reproductive life planning to help people achieve their reproductive goals. With access to educational resources and support from GPs it is feasible to expect nurses to incorporate fertility education in their health promotion repertoire.

REFERENCES

APNA, Australian Primary Health Care Nurses Association, www.apna.asn.au.

APNA, Family Planning Decision Support Tool. http://www.apna.asn.au/lib/pdf/Resources/ClinicalResources/APNAFamilyPlanningDecisionSupportTool_High.pdf (accessed June 2015).

Bunting, L., Tsibulsky, I. and Boivin, J. 2013. Fertility knowledge and beliefs about fertility treatment: findings from the International Fertility Decision-making Study. *Human Reproduction,* 28(2):385-397.

Chapman, M.G., Driscoll, G.L. and Jones, B. 2006. Missed conceptions: the need for education. *Medical Journal of Australia,* 184(12):361-362.

Cooke, L. and Nelson, S.M. 2011. Reproductive ageing and fertility in an ageing population. *The Obstetrician & Gynaecologist,* 13(3):161-168.

Hammarberg, K., Setter, T., Norman, R., Holden, C., Michelmore, J. and Johnson, L. 2013. Knowledge about factors that influence fertility among Australians of reproductive age: a population-based survey. *Fertility and Sterility,* 99(2):502-507.

Hassan, M. and Killick, S.R. 2003. Effect of male age on fertility: evidence for the decline in male fertility with increasing age. *Fertility and Sterility*, 79(supp3):1520-1527.

Holton, S., Fisher, J. and Rowe, H. 2011a. To have or not to have? Australian women’s childbearing desires, expectations and outcomes. *Journal of Population Research*, 28(4):353-379.

Holton, S., Rowe, H. and Fisher, J. 2011b. Women’s health and their childbearing expectations and outcomes: a population-based survey from Victoria, Australia. *Women’s Health Issues,* 21(5):366-373.

Homan, G.F., Davies, M.J. and Norman, R.J. 2007. The impact of lifestyle factors on reproductive performance in the general population and those undergoing infertility treatment: a review. *Human Reproduction Update*, 13(3):209-223.

Keleher, H., Joyce, C.M., Parker, R. and Piterman, L. 2007. Practice nurses in Australia: current issues and future directions. *Medical Journal of Australia,* 187(2):108-110.

Lane, M., Robker, R.L. and Robertson, S.A. 2014. Parenting from before conception. *Science,* 345:756-760.

Langdridge, D., Sheeran, P. and Connolly, K. 2005. Understanding the reasons for parenthood. *Journal of Reproductive and Infant Psychology,* 23:121-133.

Macaldowie, A., Wang, Y.A., Chugthai, A.A., Chambers, G. 2014. Assisted reproductive technology in Australia and New Zealand 2012. National Perinatal Epidemiology and Statistics Unit, the University of New South Wales, Sydney.

Mazza, D., Chapman, A. and Michie, S. 2013. Barriers to the implementation of preconception care guidelines as perceived by general practitioners: a qualitative study. *BMC Health Services Research,* 13:36.

RACGP, 2012. Guidelines for preventive activities in general practice, (8th edn) Royal Australian College of General Practitioners, East Melbourne.

Stanford, J.B. 2015. Revisiting the fertile window. *Fertility and Sterility,* 103(5):1152-1153.

Wilcox, A.J., Weinberg, C.R. and Baird, D.D. 1995. Timing of Sexual Intercourse in Relation to Ovulation — Effects on the Probability of Conception, Survival of the Pregnancy, and Sex of the Baby. *New England Journal of Medicine,* 333:1517-1521.

Your Fertility, www.yourfertility.org.au (accessed June 2015).

A mental health nursing transition program for enrolled nurses at a forensic mental health hospital

AUTHORS

Chris Quinn
RN, DAS (Nurs), Cert PN, Grad Dip (MHN), PhD
Clinical Nurse Consultant, Forensicare
Thomas Embling Hospital, Yarra Bend Road,
Locked Bag 10, Fairfield, Victoria, Australia
Chris.quinn@forensicare.vic.gov.au

Jo Ryan
RN, Bed
Director of Nursing, Forensicare
Thomas Embling Hospital, Yarra Bend Road
Locked Bag 10, Fairfield, Victoria, Australia
Jo.ryan@forensicare.vic.gov.au

KEY WORDS

enrolled nurse, mental health, training program

ABSTRACT

Objective

There are difficulties in recruiting enrolled nurses to mental health positions. A six month program was developed with the aim to bridge possible knowledge gaps for enrolled nurses, and to provide them practical support to consolidate skills and knowledge for nursing in a forensic mental health hospital.

Setting

The setting was a 116 bed secure forensic mental health hospital in the state of Victoria, Australia.

Subjects

Nine enrolled nurses who had completed a Diploma of Nursing, were recruited into the program.

Primary argument

There is a national decrease in enrolled nursing supply, and a paucity of data exploring the training needs of enrolled nurses transitioning from the Diploma to a mental health nursing role. Nursing programs are required to assist enrolled nurses with the knowledge and skills, and support required to effectively make their transition into mental health nursing.

Conclusion

The results demonstrate the importance in providing a program to assist enrolled nurses transition to mental health and that the mental health course requirements within the Diploma of Nursing and placement length may not be adequate in preparing enrolled nurses for direct entry to mental health nursing. Providing a structured transition program for a group of enrolled nurses is a useful strategy to improve knowledge, skills, and retention.

INTRODUCTION

Within Australia there are two nursing levels. These are Registered Nurses (RNs) and Enrolled Nurses (ENs). There are some similarities in the activities performed however there are notable differences in knowledge depth, the capacity to assess, plan and implement nursing care (Kerr et al 2012; Blay and Donoghue 2007). Essentially the role of the EN is to provide person centred care under the supervision of a RN while remaining professionally responsible that the care they deliver, is within their scope of practice (ANMC 2002). Qualifying as an EN requires the completion of a Diploma of Nursing (Diploma), an 18 month course including a dedicated mental health unit required to address the Mental Health Act; how to respond effectively to signs of mental illness; contribute to nursing care plans and care for people experiencing mental illness and to assist in evaluating care (Australian Government 2012).

There is a paucity of data exploring the training needs of ENs transitioning from the Diploma to a mental health nursing role. A search of the data bases Ebscohost, ScienceDirect, and Scopus, using combinations of the keywords ‘enrolled nurse; Australia; mental health’ with limitations of ‘full text’ and published after the year 2000, failed to retrieve any Australian published research examining programs for, or the experiences of, ENs entering a mental health program.

Furthermore is the lack of evidence that the Diploma curricular has been evaluated. As such the question of whether the mental health unit adequately prepares ENs for the mental health workforce remains unanswered. In the absence of evaluation, one might expect the clinical and theoretical content devoted to the mental health unit has been provided similar importance and weighting within the overall content of the course to that seen in undergraduate nurse training for RNs that has been described as minimal and unsatisfactory (Clinton and Hazelton 2000; Wynaden et al 2000). Adding to this are inadequate mental health placement opportunities for ENs to gain the much needed experience they require to assist them consolidate their knowledge and expose them to future career roles in mental health (Cleary and Happell 2005). A further factor impacting on the ability to attract ENs to the mental health workforce is the decrease in EN supply, with a decrease in EN supply nationally of 3.9% between 2009 and 2012 (AIHW 2013). The decline in EN numbers having a direct bearing on the recruitment of ENs to mental health positions. As such there is an urgent need for services to consider recruitment strategies such as transition programs to attract and support ENs to a mental health career.

A six month program was developed with the aim to bridge possible knowledge gaps for ENs and to provide them practical support for nursing in a Forensic mental health hospital. A three week orientation occurred at the commencement of the program that included clinical based educational sessions (see table 1). The ENs were supported by a Clinical Nurse Educator (CNE) and each EN was provided a preceptor. There were two three month clinical placements during the program for each EN to provide them with an experience of both an acute and longer stay Unit. Objective meetings occurred with the CNE for each placement to provide support and guidance for the EN and to assist them with their personal clinical goals.

METHOD

Participants and setting

A total of 20 ENs were interviewed, all had completed a Diploma. Nine were successful in gaining a position in the program. There were eight females and one male. Their age ranging from 21 to 50 years. Six had completed their training within a two year period of the program commencement. Two of the nine reported more than two years of mental health nursing experience, one greater than five years with the remaining six having limited experience that occurred during clinical placements whilst completing their Diploma.

Table 1: 3 Week Orientation - Educational sessions

- Mental health nursing
- Therapeutic communication and relationships
- Recovery orientated care
- Mental state examinations
- Role of the associate nurse
- Medication administration and competencies
- Role of the surgery and surgery assist nurse
- Professional boundaries
- Infection prevention and control
- Documentation and online files
- Aggression management workshop
- Risk assessment and management
- Security issues for mental health nurses
- Escorting leave competency and responsibilities
- MHPOD topics:
- Documentation
- Therapeutic Relationships
- Legislation
- Confidentiality
- Risks
- Mental health history and MSE
- Biopsychosocial factors

Consent procedures

All participants were adults. The assumption that they were competent and able to make a decision whether to participate or to decline participation in the evaluation (Polit and Beck 2013). All ENs participating in the program had been informed of the evaluation processes, and choosing to participate was voluntary. Returning completed de-identified questionnaires implied consent.

Setting

The setting was a 116 bed secure Forensic mental health hospital. Typically the function of such hospitals is to provide mental health treatment and care for adults who experience mental illness and have had contact with the criminal justice system.

Instruments/measures

Three post activity questionnaires were constructed by the researchers to evaluate the program, to provide a snapshot of the experiences of the ENs during the program (Polit and Beck 2013). Questions consisted of both quantitative questions and scales, and qualitative questions seeking views and opinions. Care was taken to ensure that questions asked for both positive aspects and shortcomings of the program.

The first questionnaire was administered during the 3 week orientation. The second evaluation occurred 2-4 weeks following orientation, to evaluate whether the orientation was adequate in preparing them for their roles on the Units and whether they were experiencing adequate support from their preceptor and CNE. The final questionnaire was administered as the ENs completed the program. This final questionnaire focussed on their overall experience of the program, the support structures, and the ongoing educational components of the program.

Data sources

Data were collected using the developed questionnaires which were provided directly to participants. To protect their anonymity, the ENs were not required to identify themselves on the questionnaires and returned completed surveys to the principal researcher in pre-addressed envelopes.

Ethical considerations

A research application was submitted and approved by Forensicare's Operational Research Committee. An ethics application was then made to the Department of Health and Department of Human Services Human Ethics Committee. The ethics committee considered the project to be a low risk, service evaluation, not requiring ethical approval.

FINDINGS

Questionnaire 1

The ENs were asked to provide feedback following each session of the orientation. The results from the clinical education sessions are reported along with the experience of supernumerary clinical time on the Units.

Mental health nursing

The content included philosophical underpinnings of mental health nursing, the therapeutic use of self, therapeutic relationships, core responsibilities, scope and standards of practice. The topic was reported as being very useful in improving knowledge about the art of mental health nursing. Five of the ENs highlighting that from their experience there was a lack of mental health nursing content in their Diploma.

Therapeutic communication and relationships

Content from this session aimed to assist the ENs to understand the experiences of consumers and to incorporate a person centred strengths based approach to care. The responses indicated that the session was very useful. However the ENs stated they lacked confidence with their skills and ability to communicate in a therapeutic manner with consumers. They also indicated an understanding of the importance in building therapeutic relationships with consumers.

Recovery orientated care

This topic explored key Recovery concepts such as hope, agency, responsibility and opportunity. The need to appreciate the uniqueness of the consumer, and the role of nurses to develop helpful and respectful partnerships with consumers. The concept of Recovery was not one that any of the ENs were familiar with.

Mental State Examinations (MSEs)

The ability to conduct an assessment of a consumer's mental state is critical to the role of nurses in mental health settings. The session was considered by them as very useful, however the process for conducting an MSE represented new knowledge for the ENs.

Professional boundaries

Understanding professional boundaries, signs of boundary violations and boundary maintenance strategies were the focus of this session. Responses such as remaining professional, not discussing personal details with consumers, and ensuring therapeutic relationships are for the benefit of the consumer, indicated a sound understanding of professional boundary maintenance.

Role of associate nurse

Session content covered the primary nursing model of care at the hospital. Within this model, the associate nurse (commonly performed by ENs) works as an adjunct to the primary nurse, supporting and ensuring implementation of the consumer's care and treatment needs. While the ENs indicated that the session was helpful, they also wanted a list of typical tasks the role performs, so they would be better informed and prepared when commencing in the role.

Medication administration and competencies

This session covered knowledge and skills, and Acts which govern the legal aspects of medication administration. An overview regarding the indications and common side effects of psychotropic medication, non-adherence and diverting of medications, and the reporting of medication errors also occurred. Completing the medication competency and supervision package was considered by them to be useful in improving their competence and confidence in administrating medications.

Role of surgery nurse and surgery assist nurse

The responsibilities of the surgery nurse for administering medications safely were well understood by the ENs. Having a surgery assist nurse with the role to supervise consumers taking their medication to reduce the risks of non-adherence or diversion of medications, was one role they had not experienced previously but was a role considered important.

Infection prevention and control (IPaC)

The content of this session covered the responsibilities of nurses towards IPaC, such as standard precautions, aseptic technique, clinical waste, sharps handling and disposal, environmental and equipment cleaning and hand hygiene. Their responses revealed that the ENs already possessed adequate IPaC knowledge.

Documentation and online files

The purpose and standards of documentation, and what should be documented and what to avoid were discussed in this session. Understanding freedom of information, and access to files were also covered. The ENs indicated they wanted examples of notes written by other nurses to help them better understand the type of information recorded. Suggestions were made by them for the provision of supervision regarding their documentation when they commence on the Units.

Risk assessment and management

Assessing consumer risk to self, others and the community is an important clinical concern, where the consequences of poor risk assessment and management can be catastrophic. Most of the ENs indicated the session was useful. A common comment from ENs was that the session could be improved with the provision of case scenarios, and an opportunity to practice assessment skills.

Aggression management workshop

This workshop taught the ENs the importance of creating a safe environment, the use of de-escalation and early intervention strategies, and restraint practices employed at the hospital. All reported the information presented to be highly useful, along with the opportunity to practice skills taught. The importance of safety for clinicians and consumers was well understood by the ENs from this training. As was the need to recognise consumer distress at an early stage to allow for effective early interventions such as de-escalation and calming strategies.

Security issues for mental health nurses

The content of the session covered physical, procedural, and relational security. The importance of knowing the consumer, their risks, their state of mind and sharing information was the focus of the topic. The information was new for the ENs however their responses indicated their appreciation to the importance of maintaining security in a Forensic hospital. The session also covered the importance of adhering to security policy, and the need to be security conscious and vigilant. Topics such as managing contraband and searching rooms were covered. Half of the ENs had never searched a consumer’s room, however their understanding to the importance of being thorough in conducting searches, and to be mindful of safety issues was well understood.

Escorting leave competency and responsibilities

Escorting consumers on leave to legal and medical appointments and to facilitate community rehabilitation needs is an important role nurses provide. The ENs reported the session was very useful. They discussed the shortcomings that embedding the content of the session into practice will occur at a later time when required to escort consumers.

MHPOD competencies

MHPOD is an online mental health professional development resource that has been based on national practice standards (MHPOD 2013) and designed to meet the needs of entry level clinicians. Overall, the responses to the relevance of the MHPOD topics (see table 1) suggests that topic content was relevant, and for the most part represented new knowledge.

Supernumerary time on units

The ENs reported the supernumerary time was a “fantastic” opportunity and a “great” way to learn, with excellent staff support from preceptors and the CNE. They were able to learn hands on, participating without the responsibility of being counted as part of the usual staffing profile.

Questionnaire 2

The second questionnaire occurred two weeks following orientation. At this time, the ENs had now been working on the units no longer in a supernumerary capacity. The purpose of the questionnaire was to seek the views of the ENs about the effectiveness of the orientation, the support of the CNE and preceptors, and their overall opinions of the program to date. The ENs discussed the bond that had formed between themselves as a group. The advantages of having a group starting together as opposed to individual appointments at different times were frequently cited. The ENs also made mention of the welcoming they received from other clinicians and the support and leadership available to them from the CNE and the nurse education department. Standout topics such as the aggression management training and the topics with a mental health nursing focus were considered most valuable in providing them with knowledge and skills for their nursing role.

The ENs were asked to consider topics that could be included or omitted to improve the orientation. They stated that incident reporting and documentation could be omitted and be taught on the Units. To improve the orientation the ENs indicated they would like more sessions on mental health nursing, greater detailed information on the day to day roles for ENs along with supernumerary time in the afternoon to improve their understanding of what is required of them after hours. The ENs also wanted greater content on the Mental Health Act.

All nine ENs indicated they were having regular meetings with their preceptor. All reporting positive support from the preceptors, who were described as being approachable and available to meet their new learning needs. However, the ENs reported that finding time to meet with their preceptor was difficult due to conflicting rosters, competing clinical demands and activities on the Unit.

The ENs also reported they were frequently meeting in person with the CNE and via email. Describing the CNE as supportive, knowledgeable and reliable. Overall, at this early stage of the program, the ENs were reporting they were feeling valued by others in the treating team and sense they were part of the team.

Questionnaire Part 3

The ENs were asked to reflect on the past six month program, and consider the standout positive features of the program. As with previous evaluations, the orientation, group recruitment, supportive staff and the support of the designated CNE, were key standout positive features. The ENs were also asked to identify any shortcomings of the program. More Unit rotations, along with more supernumerary time were further suggested improvements. When asked whether the experience with their preceptor had been a positive experience the comments were positive highlighting the knowledge and friendly nature of the preceptors. The ENs described the CNE as an approachable and supportive person, who was always available to them and considered the CNE as a credit to the program.

Critical to the success of the program was understanding whether the program provided the ENs with the skills and knowledge they required to work in mental health. Some expressed that their knowledge and skills will continue to develop with time and continued exposure to clinical situations. One stated she was very glad for the opportunity to be part of the program as she does not think she would have "lasted a week" without the support of the program. The compulsory competencies were considered by them as "very good", and "very helpful", as was the appreciation they had for the orientation and the provision of a preceptor for the length of the program.

The ENs were asked to share any additional thoughts regarding the program. Some suggested the need to include specific training on the role of the Associate Nurse. The ENs were asked to consider and share the areas of their practice they would still like to develop. They discussed the need to better understand 'Recovery' and what this means for consumers, more aggression management sessions to increase confidence in de-escalation and restraining practices. There was also the need to better understand specific nursing roles such as the Associate Nurse role and, to better understand legal processes.

Discussing their future, three of the ENs stated they are currently considering extending their career to become Registered Nurses. Three stating that they have successfully accepted positions with (a local University) to commence a Bachelor of Nursing in 2015. Others discussed taking on extra responsibilities at the hospital. One completed the QUIT training and will act as a co-trainer within the hospital to assist consumers and staff with strategies to cease smoking. One is interested in becoming a Gender Sensitive and Safety trainer within the hospital, and three ENs have become IPaC Link Nurse.

DISCUSSION

The program was established to bridge possible knowledge gaps for ENs and to provide them practical support to consolidate skills and knowledge to assist them to transition to nursing in a Forensic mental health hospital. The EN participants all identified clear advantages for them in being part of a larger group of ENs commencing in mental health together as opposed to individual appointments. They experienced satisfaction with the program and their role, and expressed that staff were accepting of them and welcomed their clinical input. These were important positive aspects of the program and is consistent with the report by Heartfield and Gibson (2005) where ENs reported that being part of a team and working with others in the provision of care was significant and important to the professional sense of self for ENs. Furthermore, the sense of belonging to a supportive team has been described as the number one factor for nurse retention (McGillis Hall et al 2011). The ENs also described the level of support from their preceptor and the CNE as highly important to the experience in the program. Hill (2011) reports that a positive supervisor relationship resulted in improved job satisfaction and retention of nurses. The program, while a new endeavour for ENs, was not dissimilar to transition programs for RNs. Where it has been reported that transition programs create supportive environments for nurses, who experience job satisfaction and results in increased retention (Missen et al 2014).

The level of satisfaction with their experience of being part of the program had a strong bearing on the future career plans for the ENs. None of the ENs reported dissatisfaction with nursing at the hospital or revealed plans to "move on". All but one of the ENs have taken on either extra responsibilities at the hospital or have expressed that they are enrolled in training to become an RN embracing the life-long learning tenants for EN registration (ANMC 2002), and adds further support to the findings of Jacob et al (2014) where educators held views that the Diploma of Nursing provides a strong foundation for ENs wanting to continue their nurse education to Undergraduate level.

A surprising finding was the lack of knowledge the ENs had regarding core foundations of mental health nursing such as the use of therapeutic communication and the need to development therapeutic relationships (Browne et al 2014; Peplau 1952) where they were unsure of their skills and abilities. They were also unsure of how to conduct a mental state examination which is a vital assessment skill in mental health. Furthermore the concept of recovery, which underpins contemporary mental health treatment approaches (Slade et al 2014), and is considered an important aspect of mental health nursing education (Happell et al 2015), represented new information to them. The ENs reported that during their Diploma content devoted to mental health nursing was not provided the importance equal to that of other areas of nursing. This shortcoming was reportedly coupled with inadequate mental health placements during the Diploma, resulting in reduced opportunity to practice mental health nursing skills, lack of confidence in engaging with consumers and building therapeutic relationships, and poor confidence in performing MSEs. This may well reflect the content preparing the ENs for more preferable clinical areas which is not surprising given that less than 2.5% of ENs identify mental health as their clinical speciality (Della and Fraser 2006).

CONCLUSION

There are positive benefits in a group recruitment mental health nursing transition program for ENs. The support of a dedicated CNE bolstered by individual preceptors is a vital support structure for the success of such programs. The structured orientation that included topics central to the practice of ENs in a mental health environment were an important feature of the program due to the poor knowledge base, and lack of personal confidence in their skill base. The results of this mental health program where the ENs experienced clinical support and good job satisfaction, provides further support that increased retention and future career development for ENs can result from specific mental health transition programs.

RECOMMENDATIONS

Given the small sample size of nine ENs and that the program evaluation occurred in the one Forensic mental health hospital the findings may not represent the views of ENs in similar programs and environments. Furthermore, the findings reflect reported rather than observed behaviour. There is the risk of participants censoring their responses or offering responses they believe to be acceptable rather than reporting their actual practice or experiences. The evaluation of the program suggests the mental health unit in the Diploma does not adequately prepare ENs to enter the mental health workforce without the support of a transition program. Mental health nursing transition programs for ENs are crucial in supporting and retaining ENs. Further research is required to evaluate the content of the mental health unit within the Diploma and strategies to improve the placement for student ENs to improve their exposure to mental health and mental health nursing.

REFERENCE LIST

ANMC. National competency standards for the Enrolled Nurse. Australian Nursing and Midwifery Council 2002. Available from file:///C:/Users/cqui1408/Downloads/2_EN-Competency-Standards-August-2008--new-format-.PDF (accessed 23/03/15).

Australian Government. 2012. HLTEN510B Implement and monitor nursing care for consumers with mental health conditions. edited by Department of Education Employment and Workforce Relations. Canberra: Community Services and Health Industry Skills Council.

Australian Institute of Health and Welfare (AIHW). 2013. Nursing and midwifery workforce 2012. edited by Australian Institute of Health and Welfare. Canberra.

Blay, N. and Donoghue, J. 2007. Enrolled nurse skill extension: metropolitan myth or rural reality? *Australian Journal of Advanced Nursing*, 24(3):38-42.

Browne, G., Hurley, J. and Lakeman, R. 2014. Mental health nursing: What difference does it make? *Journal of Psychiatric and Mental Health Nursing*, 21(6):558-563.

Cleary, M. and Happell, B. 2005. Recruitment and retention initiatives: nursing students' satisfaction with clinical experience in the mental health field. *Nurse Education in Practice*, 5(2):109-116.

Clinton, M. and Hazelton, M. 2000. Scoping mental health nursing education. *Australian & New Zealand Journal of Mental Health Nursing,* 9(1):2-10.

Della, P. and Fraser, A. 2006. Survey of Enrolled Nurses Working in the Western Australian Public Health System. edited by Department of Health. Western Australia.

Happell, B., Bennetts, W., Harris, S., Platania-Phung, C., Tohotoa, J., Byrne, L. and Wynaden, D. 2015. Lived experience in teaching mental health nursing: Issues of fear and power. *International Journal of Mental Health Nursing*, 24(1):19-27.

Heartfield, M. and Gibson, T. 2005. Australian enrolled nurses have their say -- part 1: teamwork and recognition. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 19(1-2):115-125.

Hill, K S. 2011. Work Satisfaction, Intent to Stay, Desires of Nurses, and Financial Knowledge Among Bedside and Advanced Practice Nurses. *Journal of Nursing Administration*, 41(5):211-217.

Jacob, E.R., McKenna, L. and D'Amore, A. 2014. Senior nurse role expectations of graduate registered and enrolled nurses in Australia: Content analysis of open-ended survey questions. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 48(2):212-218.

Kerr, D., Lu, S., Mill, D. and McKinlay, L. 2012. Medication Administration by Enrolled Nurses: Opinions of Nurses in an Australian Healthcare Organization. *Nursing Forum*, 47(4):203-209.

McGillis Hall, L., Lalonde, M., Dales, L., Peterson, J. and Cripps, L. 2011. Strategies for retaining midcareer nurses. *The Journal Of Nursing Administration*, 41(12):531-537.

MHPOD. Mental health professional online development. Centre for Health Programs, Policy and Economics at the University of Melbourne 2013. Available from http://www.mhpod.gov.au/.

Missen, K., McKenna, L. and Beauchamp, A. 2014. Satisfaction of newly graduated nurses enrolled in transition-to-practice programmes in their first year of employment: a systematic review. *Journal of Advanced Nursing*, 70(11):2419-2433.

Peplau, H.E. 1952. Interpersonal relations in nursing. G. P. Putnam's Sons: New York.

Polit, D.F. and Beck, C.T. 2013. Essentials of Nursing Research: Appraising Evidence for Nursing Practice (8th edn). Lippincott Williams & Wilkins: Philadelphia.

Slade, M., Amering, M., Farkas, M., Hamilton, B., O'Hagan, M., Panther, G., Perkins, R., Shepherd, G., Tse, S. and Whitley, R. 2014. Uses and abuses of recovery: implementing recovery-oriented practices in mental health systems. *World Psychiatry: Official Journal Of The World Psychiatric Association* (WPA), 13(1):12-20.

Wynaden, D., Orb, A., McGowan, S. and Downie, J. 2000. Are universities preparing nurses to meet the challenges posed by the Australian mental health care system? *Australian & New Zealand Journal of Mental Health Nursing,* 9(3):138-146.

Flooded with evidence: using a 'spillway' model to improve research implementation in nursing practice

AUTHORS

Associate Professor Clint Moloney
PhD, MHealth, BNur
Associate Professor in Nursing, School of Nursing and Midwifery, University of Southern Queensland,
West Street, Toowoomba, Queensland, Australia
clint.moloney@usq.edu.au

Melissa Taylor
PhD Candidate, MHealth (Sci), BNur
Senior Lecturer (Nursing), School of Nursing and Midwifery, University of Southern Queensland,
11 Salisbury Road, Ipswich, Queensland, Australia
melissa.taylor@usq.edu.au

Dr Nicholas Ralph
PhD, MClinPrac (with Distinction), BN, RN
Senior Lecturer (Nursing), School of Nursing and Midwifery, University of Southern Queensland,
West Street, Toowoomba, Queensland, Australia
nicholas.ralph@usq.edu.au

KEY WORDS

evidence based practice, nursing, risk, clinical audit, research

ABSTRACT

Objective
To identify barriers to implementing evidence-based practice initiatives in small to medium sub-acute facilities in Queensland.

Design
The study uses a qualitative methodology in which field observations and convergent interviews were employed to generate data.

Setting
Four south-east Queensland sub-acute care facilities participated in the study. Observational and interview data were collected.

Subjects
Field observations were recorded across the sites. Five research fellows collected observational data on evidence-based practice implementation across a period of six months. Nine clinicians participated in in-depth, convergent interviews at the end of the period of observation.

Main outcome measures
The authors analysed observational and interview data using qualitative thematic analysis.

Results
Three themes emerged which described the needs of clinicians when evidence-based practice initiatives were being implemented: (1) valuing evidence; (2) risk prioritisation; and (3) controlling the flow of evidence. A ‘Spillway Model’ is proposed as a mechanism for targeting clinical priorities using integrated risk management.

Conclusion
This study supports the use of integrated risk management as part of a Spillway Model to guide the introduction of evidence-based practice initiatives in the clinical setting.

INTRODUCTION

Although evidence-based practice (EBP) is generally viewed as an overwhelmingly positive initiative in nursing, the complexity of contemporary healthcare has resulted in some well documented failures (Grou Volpe et al 2014; Kmietowicz 2014; Metsälä and Vaherkoski 2014; JCCfTH 2009). While some models like the PARIHS framework provide guidance for utilising evidence (Kitson et al 2008), the information age has resulted in a flood of data that is unwieldy for nurses to effectively engage with. Recent studies have endeavoured to explore whether the volume of evidence can impact on the clarity of effective clinical decision-making (Moloney 2013). Runciman et al (2006) notes when new problems are encountered, clinicians are more inclined to make decisions that are familiar and comfortable than to thoroughly investigate what is best practice from a plethora of available evidence.

Intriguingly, EBP has become a process as much about risk-managing the volume of information available as it is about determining what is best practice (Moloney 2013). Poorly managed EBP in practice is often linked with extant organisational or cultural issues and is considered a genuine barrier to the delivery of quality healthcare (Kitson et al 2008; Averis and Pearson 2003). The impact of this phenomenon is not well understood in sub-acute care facilities in regional Queensland and is a trigger to action for this study.

METHOD

Phenomenographic research facilitates studying the experience of participants in order to appreciate the variation of the experience itself, and the adaptation of meaning of the research utilisation encounter for the participants (Pringle et al 2011). Numerous studies focusing on nurses' experiences of EBP implementation have been guided by a phenomenological design (Kaasalainen et al 2010; Estabrooks et al 2003).

Ethical approval was obtained from the Human Research Ethics Committee of the health service where participants were working (Approval no. EC00341:2013:26). All participants gave written informed consent prior to participation, and were advised of their right to withdraw without penalty or prejudice at any time.

Participants were recruited from four nominated trial sites in South East Queensland via purposive sampling. These sites included aged and community healthcare agencies in Bundaberg, Hervey Bay, Toowoomba and Brisbane. Five research fellows collected field notes in the form of diary entries from their observations of implemented EBP initiatives over a six month period across the organisations. Field notes observed detailed barriers and enablers of implemented EBP initiatives and impact on clinicians.

In total, nine clinicians were interviewed at the end of the observational period to further explore clinicians' experience of implementing EBP initiatives. Data were collected using the technique of convergent interviewing in which the researcher collects, analyse, and interpret the participant's lived experience, opinions, attitudes, beliefs, and knowledge that converge around a series of interviews. Convergent interviewing enables in-depth interrogation by advancing a cyclical research method requiring continuing analysis as part of the whole approach (Driedger 2008; Riege and Nair 2004). Interview prompts such as "tell me about EBP initiatives your facility is implementing at the current time" were asked. Recordings from interviews were transcribed verbatim. Field notes from observations were merged with transcribed interview data and analysed.

Copies of transcripts were returned to each participant for verification interviews prior to analysis as supported in phenomenographic interviewing (Meyrick 2006). Written transcripts were fractured using line-by-line coding and subsequent categorisation led to the identification of themes (Saldana 2012). A concept map of individual interviews using qualitative data analysis software was subsequently produced and disseminated to encourage participant involvement in the analysis phase (Ralph et al 2014).

FINDINGS

Analysis of the findings revealed that participants referred to the need to treat risks and EBP initiatives in the same way a spillway is used in a dam. While EBP initiatives were valued among participants unilaterally (theme 1), the need to target the evidence where it is needed most through a systematic audit process (theme 2) was clearly recognised. The mechanism for achieving this was through the use of a spillway-styled approach (theme 3) in which resultant workload and practice issues were offset by accounting for the activity of EBP.

Concept 1: Valuing evidence

It was clear that nurses understood the need to maintain a foundational knowledge base for their own practices. While the importance of evidence was recognised, nurses reported experiencing difficulty at times in knowing how to approaching the literature and implementing it into their own scope and sphere of practice. While participants recognised the importance of EBP from their university education, the desire to use research to enhance knowledge was confounded by an overall uncertainty and a lack of confidence in approaching the evidence-base:

> *"I know from my uni [sic] training that EBP is important. But since working full time I find it difficult to incorporate into my practice…I know I need to inform my practice and update my knowledge, but often I don't know how…Where do I start and how to I decide which topic is most important? I know there is a link between knowledge and EBP – I need to have the key knowledge prior to being able to look at the correct process [of how to utilise research] for EBP."*

Although research utilisation was valued because of its role in increasing knowledge for practice, participants strongly identified with the idea that knowledge growth translated to practice improvement:

> *"I think there are strong links to EBP and my own standards of practice."*

Despite attitudes towards increasing levels of EBP, participants consistently viewed organisational constraints as a key barrier to achieving as much. Organisations appeared to prioritise nurses "doing" practice more highly than nurses "thinking" about practice with many participants perceiving that research utilisation was something separate to what nurses were primarily employed to do:

> *"I just wished they had realistic expectations [about providing workload for research utilisation activities] so that we could actually achieve something…our organisation needs to make all evidenced-based activities more targeted and achievable."*

Concept 2: Risk prioritisation

Participants highly valued the concept of EBP. However, there was a desire to couch EBP initiatives in terms of identifying specific risks within the organisation and responding to them through utilising quality research. A general lack of awareness within the organisation regarding the prioritisation of ongoing issues and how they were addressed through EBP was apparent amongst participants:

> *"I would like to know how we prioritised our new focus of attention…I never agree with the priorities set by our organisation for research activity, I see other issues in my patient care that I think need more attention…surely our biggest risks should drive what we focus on for research…I once engaged in an infection control audit…although we found issues which I think were large,*

> *the organisation then prioritised other activities. Given the escalating incidents we have seen in our areas surely they are priorities over anything the organisation wants us to engage in."*

A strong theme of concern resonated across participants who voiced concern that a lack of comprehensive risk analysis was resulting in evidence utilisation becoming more of a feel-good concept than a meaningful endeavour. They voiced the need for organisations to specifically and systematically identify high-risk issues related to patient care and cluster EBP initiatives through a process of audit-based risk prioritisation:

> *"Not once in my time here in 10 years have I witnessed a clinical audit…I don't think we have enough data to decide what [quality improvement activities] should be a priority, perhaps we need more audits…I think they [clinical audits] have a place in determining what our staff should be looking at in improving patient care and decreasing risk…If the organisation informed where the infection control priorities were…it would decrease risk."*

Determining evidentiary needs through a risk management lens was a feature of participant responses as staff viewed it as a means to appropriately direct organisational research priorities. Participants reported the danger of becoming distracted by priorities that were popular rather than reflective of the immediate needs of the organisation:

> *"I would like to know how we prioritised our new focus of attention…there are often multiple requests from staff and others and I need to know I am focusing on the right issues at that time. I see these distractions as a risk."*

> *"We report a lot of risk, but I wonder why the risks we talk about are never part of the new activities coming through…. where I used to work they used the risk management process to drive what was a key focus at the time."*

As a consequence of unclear priority-setting, there was a strong perception among participants that organisations often tended towards a reactionary response rather than a proactive approach to preventing risk:

> *"I only see the organisation seek and implement changes based on new evidence when risk management considerations advise them that without it the factors of consequence may be severe. If the organisation informed us where the priorities are that we need concentrate on, it would likely decrease risk. At present I don't know where to start with this nursing portfolio."*

A whole-of-organisation approach to implementing evidence-based strategies to specifically target key risks to the safety and efficacy of care was strongly supported among participants. Participants reported feeling frustrated with poorly defined EBP initiatives, particularly where a lack of focused initiatives was observed:

> *"Better clarification of the key issues is required and I would like some training on evidence based changes. We need to move away from the way we have always done things and towards best evidence. Otherwise I believe the organisation is at risk."*

In the absence of specifically directing the focus of the organisation towards using evidence to mitigate key risks in practice, EBP was perceived as an overwhelming activity that was ineffective when not aligned to organisational risks. Participants felt as though it contributed to staff workload increases and limited the capacity of clinicians to capably address the specific needs of the organisation they worked in:

> *"They should be ensuring we have the capacity to finish something though before asking us to take on another," "Staff want the capacity and the time to fit in new initiatives, I just don't have the capacity at the moment to fit into my day. The organisation needs to free our time and stop focusing on so many things all at once."*

Time constraints were frequently raised by participants as a major barrier to engaging with evidence-based initiatives within the organisation by better prioritising workload associated with its implementation:

> *"Managers should ask, "have we done this before?" when approached with ideas and issues. They should be ensuring nurses have the capacity to finish something though before asking us to take on another…we just need more time to do research."*

Concept 3: Controlling the flow of evidence

Intriguingly, participants use the analogy of a spillway to represent how their perceptions of EBP should be implemented. In the context of limited time and seemingly unlimited EBP initiatives, there was broad consensus among participants that workload was either never or seldom given to account for EBP as nurses need to be 'practicing' rather than 'thinking' about best-practice. Not having sufficient time to start, progress or even finish any evidence-based initiatives was a constant source of frustration and resulted in nurses feeling overloaded or "flooded" with too many tasks at once.

> *"We are often flooded with requests to engage in new activities I just wish someone would control the flood. You know a bit like a dam wall… Lately I just feel overloaded. Research is just another task we don't have time for. I think the organisation has no idea how much overload of information comes our way at times. I wish we could just focus on one task sometimes; I am juggling a lot at the moment I go home feeling overloaded. Sometimes I feel like I am juggling lots of things at once."*

Nurses very clearly recognised research utilisation and implementation as a major facet in addressing the priorities of care more tangibly amidst calls for it to be specifically recognised in the role of a nurse through workload allocation:

> *"Different nursing settings will need different approaches, and some creative thinking may be needed. However, it should be borne in mind that unless freed up time is earmarked for research implementation; other activities are likely to take priority."*

The use of the spillway analogy by participants was novel and resulted in the development of a model in which research utilisation, organisational priorities and integrated risk management are considered in the broader context of EBP.

DISCUSSION

This research has cast a spotlight on the tension between the benefits of EBP initiatives and how the wealth of evidence is managed to target clinical risks. The following discussion will address three main points: the complexity of effectively implementing EBP initiatives; the role of nurses in communicating around EBP initiatives; and potential Spillway mechanisms to control the flow of evidence towards identified risks.

The rise of EBP initiatives in the clinical environment have been well studied in the literature (Kitson et al 2008; Pearson et al 2005; Estabrooks et al 2003; Rogers 2002). However, there are emerging concerns about how the influx of EBP initiatives should be addressed to effectively challenge targeted specific clinical issues (Moloney 2013). This issue is represented by study data showing that while nursing staff had a good grasp on clinical risks and were eager to engage in EBP to mitigate clinical risks, an overload of these initiatives overwhelmed the implementation process resulting in broad perceptions of failure. The resultant outcome meant there was a reported decrease in staff capacity to utilise evidence effectively.

More broadly, there are clear deficits in the dissemination and utilisation of multiple EBP practice initiatives concurrently in smaller organisations. Current implementation models have not factored in the broader influences on risk-prioritisation and its relationship with EBP (Pearson et al 2005). Health services need to consider what their key clinical risks are when considering what EBP initiatives to emphasise (Blackwood et al 2011).

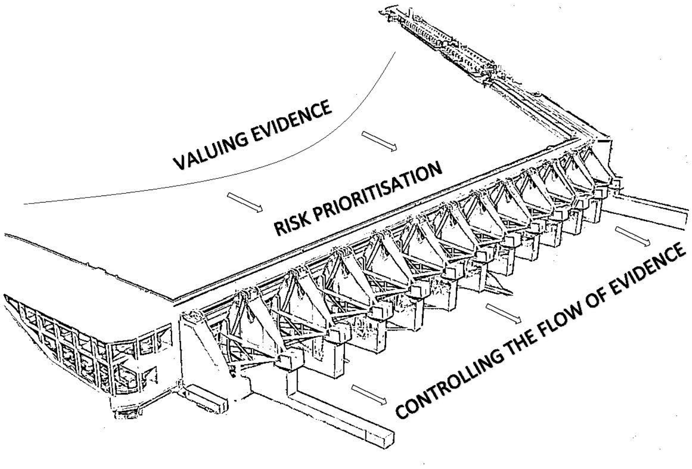
If healthcare professionals are questioning decision-making from their leadership groups, then clinician engagement in EBP has been sub-optimal with respect to decision-making processes. Decisions typically made by senior health managers regarding EBP initiatives should be inclusive of staff longitudinally, throughout its implementation (Rogers 2002). The results of Timmins et al (2012) align with this study as both findings raise questions around the type of leadership for evidence-implementation within the facility and how it is communicated to ensure it impacts the point-of-care positively.

Ironically, very few studies directly consider personal and organisational risk prioritisation skills and or leadership attributes in their recommended processes. A review of the literature reveals that the highest priorities to nurses were ‘standards of patient care’ and a ‘reduction of harm’ with significant challenges in evidence utilisation and controlling the flow of information in the clinical setting (Morley et al 2014; Wilkes et al 2013). To appropriately focus the implementation of evidence, Smith et al (2009) argues that researchers and decision-makers must spend more time developing EBP implementation initiatives collaboratively. Furthermore, these initiatives must be targeted to the most pressing clinical risks, meaning nurses at the point-of-care should have a vocal role in deciding where and how evidence implementation initiatives are prioritised (Mandleco and Schwartz 2002).

Consequently, healthcare leaders and researchers need to view integrated risk management and EBP implementation as an opportunity to create strong synergies between the two. For this to occur, healthcare organisations need to be sensitive and responsive to core staff concerns around clinical risks and the time taken to utilise evidence to mitigate them effectively (Rangachari et al 2015; Lavis et al 2003). For the nursing profession, the results of this study and that of Moloney (2013) support the role of a nursing ‘gatekeeper’ to articulate the hidden workload involved with EBP initiatives and clinical risk mitigation.

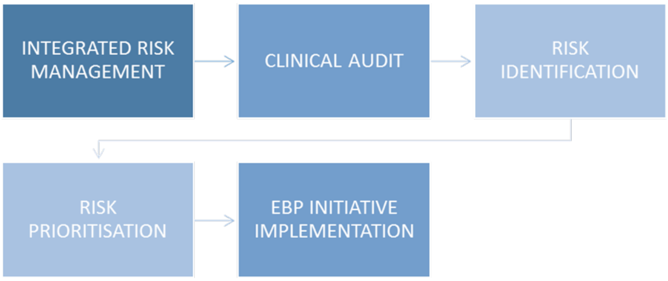
From this study, a basic representation of the need to control the flow of evidence is offered to articulate the ideal process of how EBP initiatives are implemented in the clinical environment. The Spillway Model (see figure 1) - directly derived from the data – is proposed as a means of structuring evidence uptake, identifying risks, and proposing an appropriately staged intervention so as not to overwhelm clinicians.

Figure 1: The Spillway Model



A Spillway Model is necessary to control the flow of evidence and appropriately prioritise risk. While a variety of mechanisms could be used as the spillway 'gate', there needs to be clear channels for how EBP initiatives are implemented along with justifiable rationales. The participants clearly pointed to a system where a mechanism such as integrated risk management acted as a way of controlling the flow of EBP initiatives. The use of clinical audits, as raised by participants, can form an integral part of any integrated risk management system in which risks are prioritised to guide the implementation of EBP initiatives in the clinical setting.

Figure 2: From Integrated Risk Management to EBP Implementation



While this process presents *one* possible mechanism for using a Spillway Model, a pragmatic approach to long term evaluation of successes and failures for EBP initiatives is required to ensure that risk management, EBP and quality assurance become integrated processes. A longitudinal evaluation of the process proposed by the Spillway model is therefore warranted. As this research has cast a spotlight on a significant gap in the domain of putting EBP into practice, a challenge has now been tendered; will healthcare organisations now work more effectively with the nursing profession to translate these initiatives to the point-of-care more effectively?

LIMITATIONS

This study may be limited by its location and length. It is not known whether similar circumstances exist outside of south-east Queensland. Likewise, although data were collected over a six-month period, it is not known whether controlling the flow of evidence improves after this period.

CONCLUSION

This study emphasises the clinical environment in which nurses work require a discrete structured filtering mechanism that controls the flow of different evidence-based activities impacting on their workloads. In doing so, nurses may then be able to channel EBP initiatives according to risk rather than other, arguably dubious, rationales. As natural attorneys of change, nurses need to take a proactive leading role in prioritising EBP initiatives, ensuring that, as internal stakeholders, they maintain clear lines of communication to key organisational touch points to articulate the risks and needs of each clinical setting.

REFERENCES

Averis, A. and Pearson, A. 2003. Filling the gaps: identifying nursing research priorities through the analysis of completed systematic reviews. JBI Reports, *International Journal of Evidence Based Healthcare*, 1(3):49-126.

Blackwood, B., Albarran, J. and Latour, J. 2011. Research priorities of adult intensive care nurses in 20 European countries: a Delphi study. *Journal of Advanced Nursing*, 67(3):550-562.

Driedger, S. 2008. Convergent Interviewing. In Lisa M. Given (Ed.), The Sage Encyclopedia of Qualitative Research Methods. (pp. 126-128). Thousand Oaks, CA: SAGE Publications.

Estabrooks, C., Floyd, J., Scott-Findlay, S., O'Leary, K. and Gushta, M. 2003. Individual determinants of research utilization: a systematic review. *Journal of Advanced Nursing*, 43(5):506-520.

Grou Volpe, C., Moura Pinho, D., Morato Stival, M. and Gomes de Oliveira Karnikowski, M. 2014. Medication errors in a public hospital in Brazil. *British Journal of Nursing*, 23(11):552-559.

JCCfTH. 2009. Newswire. Joint Commission Center for Transforming Healthcare takes aim at patient safety failures. *Healthcare Purchasing News,* 33(10):6-6.

Kaasalainen, S., Martin-Misener, K., Kilpatrick, P., Harbman, D., Bryant-Lukosius, F., Carter, D. and DiCenso, A. 2010. A Historical Overview of the Development of Advanced Practice Nursing Roles in Canada. *Canadian Journal of Nursing Leadership*, 23:35–60.

Kitson, A., Rycroft-Malone, J., Harvey, G., McCormack, B., Seers, K., and Titchen, A. 2008. Evaluating the successful implementation of evidence into practice using the PARiHS framework: theoretical and practical challenges. *Implementation Science*, 3:1-12.

Kmietowicz, Zosia. 2014. NHS must move on from failures of past in 2014, say healthcare leaders. *British Medical Journal*, 348(7940):3-3.

Lavis, J., Robertson, D., Woodside, J, McLeod, C. and Abelson, J. 2003. How Can Research Organizations More Effectively Transfer Research Knowledge to Decision Makers?. *Milbank Quarterly*, 81:221–248.

Mandleco, B. and Schwartz, R. 2002. Research reflections. Faculty/student collaboration: an approach to teaching nursing research. *Nurse Educator*, 27(2):61-64.

Metsälä, E. and Vaherkoski, U. 2014. Medication errors in elderly acute care - a systematic review. *Scandinavian Journal of Caring Sciences,* 28(1):12-28.

Meyrick, J. 2006. What is good qualitative research? A first step towards a comprehensive approach to judging rigour/quality. *Journal of Health Psychology*, 11(5):799-808.

Moloney, C.W. 2013. Behavioural intention and user acceptance of research evidence for Queensland nurses: provision of solutions from the clinician. *Nurse Education in Practice*, 13(4):310-316.

Morgan, D.L. 2010. Reconsidering the role of interaction in analyzing and reporting focus groups. *Qualitative Health Research*, 20(5):718-722.

Morley, J., Caplan, G., Gideon, C., Matteo, D., Birong, D, Flaherty, J., Grossberg, G. and Vellas, B. 2014. International Survey of Nursing Home Research Priorities. *Journal of the American Medical Directors Association,* 15(5):309-312.

Pearson, A., Wiechula, R., Court, A. and Lockwood, C. 2005. The JBI model of evidence-based healthcare. *International Journal of Evidence-Based Healthcare (Wiley-Blackwell),* 3(8):207-215.

Pringle, J., Drummond, J., McLafferty, E. and Hendry, C. 2011. Interpretative phenomenological analysis: a discussion and critique. *Nurse Researcher,* 18(3):20-24.

Ralph, N., Birks, M., & Chapman, Y. 2014. Contextual positioning: Using documents as extant data in grounded theory research. *Sage Open*, 4(3):1-7.

Rogers, E.M. 2002. Diffusion of preventive innovations. *Addictive Behaviors,* 27(6):989-993.

Rangachari, P., Madaio, M., Rethemeyer, R., Wagner, P., Hall, L., Roy, S. and Rissing, P. 2015. Cumulative impact of periodic top-down communications on infection prevention practices and outcomes in two units. *Health Care Management Review,* 40(4):324-336.

Riege, A.M. and Nair, G. 2004. The diversity of convergent interviewing: Applications for early researchers and postgraduate students. *Marketing Review*, 4:73–85.

Runciman, W.B., Williamson, J.A., Deakin, A., Benveniste, K.A., Bannon, K. and Hibbert, P.D. 2006. An integrated framework for safety, quality and risk management: an information and incident management system based on a universal patient safety classification. *Quality & Safety in Health Care*, 15(Suppl 1): i82-i90.

Saldana, J. 2012. *The Coding Manual for Qualitative Researchers*. SAGE.Los Angeles.

Smith, N., Mitton, C., Peacock, S., Cornelissen, E. and MacLeod, S. 2009. Identifying research priorities for health care priority setting: a collaborative effort between managers and researchers. *BMC Health Services Research,* 9(1):165.

Timmins, F., McCabe, C. and McSherry, R. 2012. Research awareness: managerial challenges for nurses in the Republic of Ireland. *Journal of Nursing Management,* 20(2):224-235.

Wilkes, L., Cummings, J. and McKay, N. 2013. Developing a Culture to Facilitate Research Capacity Building for Clinical Nurse Consultants in Generalist Paediatric Practice. *Nursing Research & Practice*, 1-8. doi: 10.1155/2013/709025

Stoma and shame: engaging affect in the adaptation to a medical device

AUTHOR

Lionel Diebold
MCP, PhD
Associate member, Epsylon Laboratory, Montpellier University
Institutional base: Marseille Hospital (La Timone) Digestive surgery service
14 rue Fravega, 83000, TOULON, France
lionel.diebold@neuf.fr

ACKNOWLEDGEMENTS

The author is sincerely grateful to Emeritus Professor Victoria Grace (University of Canterbury, New Zealand) for her invaluable assistance in the preparation of this article in English. The author also acknowledges the anonymous reviewers' helpful comments.

KEYWORDS

stoma, ostomy appliance, colostomy, Lacanian psychoanalysis, shame, transference

ABSTRACT

Objective
The objective is to understand difficulties some patients have with their adaptation to a medical device, specifically a stoma and an ostomy appliance, following gastro-enterologic surgery. A partial or total colectomy is typically performed in cases of digestive cancers, Crohn's disease, or anal incontinence. A psychotherapeutic application deduced from this understanding is described. The therapeutic approach is informed by Lacanian psychoanalysis.

Setting
The setting is the digestive surgery services section of a large public teaching hospital in France. The clinical team conducting the interventions described perform their work with patients post-operatively.

Subjects
Selected cases are chosen to provide brief illustrations of the analysis and the psychotherapeutic approach developed.

Primary argument
This study focuses on the impact of the stoma and the ostomy appliance on the subjectivity of the patient and shows how the affect of shame can appear. It is noted that the affect of shame in the adaptation to an ostomy appliance has not been investigated to date. This affect can in turn have psychological effects on the gastro-enterologic treatment itself, even to the point of the patient's abandonment of ongoing care. The analysis reported here explores the recognition of shame when it might be present, and the process of accompanying the patient therapeutically, engaging the logic of the transference.

Conclusion
Shame cannot be treated by ignorance or by indifference. A psychotherapeutic application engaging the transference between the patient and members of the nursing and psychotherapeutic team, helps patients support shame and adapt well to the ostomy bag.

INTRODUCTION

In cases where a colostomy or ileostomy is performed as treatment for gastroenterological disease, the effect of the intervention involving a stoma[1] with an ostomy bag often presents some difficulties for the medical team. It is not so much that there are difficulties arising from the medical device itself, but rather difficulties for the patients who must then adjust to living with the stoma and the ostomy appliance, with its requirements of drainage and changing. Our analysis of the lived experience of patients who have received either a colostomy or an ileostomy appliance, indicates the difficulties and related affects are similar in each case. Our group has observed how a patient, who apparently does not think about the stoma and the ostomy bag, can become isolated, sometimes for some years and sometimes even resulting in suicide.

There is a small but growing focus on the question of the experience of stoma and the introduction of an ostomy appliance in the nursing literature, researching how nurses might understand, treat and care for patients living with a colostomy or ileostomy bag. The question of acceptance has been addressed in a number of studies. The intervention of the bag has been described as a 'challenge' (Popek et al 2010; Krouse et al 2009), through to identifying a 'negative impact' due to the difficulty of acceptance (Thorpe et al 2014; Ang Seng Giap et al 2013; Kimura et al 2013(a) 2013(b); Siew Hoon et al 2013; Jeanroy-Beretta 2011; Krouse et al 2007; Northouse et al 1999). These studies, however, do not address the nature of this difficulty.

A comprehensive literature search found that the issue of shame[2] is considered in only two articles. In one, it is given a passing mention: Johnsen et al (2009) acknowledge the significance of this 'sense of shame' for patients, as this emerged from their research, but without proposing an analysis of this sense of shame in therapeutic terms. There is one study in the French literature (Jeanroy-Beretta 2011) that offers a remarkable reading of the stoma from the point of view of a concern regarding shame and sexual modesty. Although Jeanroy-Beretta addresses the issue of what is involved in the act of looking at, or into, the stoma, she does not draw out the psychodynamic consequences. Within the psychoanalytic paradigm, Freud (1910) considered that the look is different from the organ, the eye. The look is a partial drive (Freud, 1915), with its partial jouissance[3]. Jeanroy-Beretta confines herself to the issue of the sight of faeces in the bag on the stomach, but misses the significance of the drive of the look. In our clinical practice, we note that what the patient typically says he or she first **sees** is the flesh of the abdomen ('my own flesh outside'), or some faecal matter, or some blood, etc; sometimes it is the bag itself.

The problems of adapting to the bag are most often linked to the impossibility of accepting the sight of the stoma on the abdomen. In turn, this impossibility is what drives carers to engage patients on the question of their perception of this sight, a perception that will be specific to each individual patient.

We find these visual perceptions to be the main ways of discovery most frequently encountered with patients post-operatively, and they invariably refer to shame. Shame concerns the look of the 'other', and the imagined view the individual has of him or herself through the gaze of the 'other'. Shame does not necessarily, or immediately, involve guilt. According to psychoanalyst Jacques Lacan (1964, p98), shame passes by the drive of the look or gaze. Therefore, the question is posed how a practitioner might work with shame, from the moment of a traumatic shock of the look that captures the patient.

Research with patients recovering from curative colorectal cancer surgery, reported by Taylor et al (2010), investigates patients' fears about cancer returning. They present a model of a movement from an initial

---

[1] See glossary for explanation of 'colostomy', 'ileostomy' and 'stoma'.

[2] See glossary of terms.

[3] See the glossary for an explanation of the terms 'jouissance' and 'the partial drive'.

disembodiment to embodiment as a process of therapeutic recovery involving a regaining of control. They propose two opposing positions – guarding and resolution. “Guarding” refers to the difficulties patients face during the transition towards recovery, involving a reaction of a kind of hyper-vigilance. Focussing on the shock of the visual sight, and the shame that the intervention of a stoma elicits, we intend to show how patients might pass from guarding to resolution.

All studies reviewed emphasise the importance of the nursing relationship developed with patients (Ferreira-Umpiérrez 2014; Thorpe et al 2014; Ang Seng Giap et al 2013; Zheng et al 2013; Landers 2012), or that of health care professionals more generally (Taylor et al 2011; Krouse et al 2009; Northouse et al 1999). However, no study explores the dynamic of the relationship, nor questions what approach would be most beneficial for the patient.

In psychoanalytic terms, a relationship between two persons, particularly where there is a perceived and apparent difference in knowledge or expertise, involves transference[4], positive or negative, which is an unconscious dimension of the relationship. Transference is not addressed in the studies reviewed. One study recommends that patients have access to psychologists before and after the surgical procedure (Krouse et al 2009, p232), without addressing the issue of transference in the relationship. In the nurse–patient relationship, the two persons involved are the nurse, who is not ill, and the ill person; this is an asymmetric relationship. From a psychoanalytic point of view, if transference is not taken into account, the treatment will be ignoring an important aspect of the therapeutic process.

Evans (2007) explores the importance of transference in the nurse–patient relationship. The patient, feeling weakened by his or her illness, is often in a position of recognising the supposed knowledge of the nurse or the doctor. In Evans’ terms, with reference to Lacan, “transference, then, can be recognized by the emergence of a subject who is ‘supposed to know’” (Evans 2007, p5); the ‘subject’ here being present in the form of the nurse or doctor. The one-on-one relationship, as is the case in stoma care, encourages the health care professional to grasp what is happening in this relation with the patient. Evans (2007) claims the nature of the transference that can develop between the nurse and the patient depends on the distance between the two partners, a distance concerning the unconscious[5] link: “When the nurse is positioned as distant to the patient and involved with the more technical aspects of care; (*sic*) that is, as technician, it is more difficult to privilege listening to the patient, thus making it more difficult to hear the particular meaning each patient attributes to his/her illness” (Evans 2007, p2). The position of distance does not enable the therapeutic relationship; a position of an inappropriate closeness can introduce anxiety. Distance or proximity have to be evaluated in relation to each patient, because it concerns the unconscious of the patient.

As Evans explains, if and when the transference develops, the nurse who is initially a stranger to the patient, “might be positioned, for example, as someone who the subject can trust, love and respect, or the person might be positioned as someone who the subject feels they can never please” (Evans 2007, p4). These kinds of positioning indicate precisely that transference is operative in the relationship.

Our clinical practice aims to incorporate an understanding of the transference. We are concerned to reflect on the way the lived experience of patients might be affected by this medical externalisation in the case of colostomy or ileostomy. What is happening psychically regarding the introduction of these medical devices? The suffering experienced by patients guides our reflections. It appears clear that all professionals involved in surgical-related care in gastroenterology will meet such situations. However, none of the research to date

---

[4] See glossary of terms.

[5] See glossary of terms.

begins their study in the hospital, with the patient at the time of the discovery of the stoma on the abdomen, with the nurse who cares, nor considers how to practise care through accompanying this suffering. This is our qualitative focus.

SHAME AND SUBJECTIVITY: THE FELT, THE SAID, AND THE SEEING

The starting point for our approach is immediately post-operative, when the patient confronts the stoma through to the time when an adaptation has been achieved. Our experience has demonstrated that there are two versions of the stoma, that of the surgical team and that of the patient. In perceiving this distinction, we follow the notion of Georges Canguilhem (1966/1989) that there are two versions of a disease, as two sides of the same knowledge. The distinction is necessary as the disease of the patient is not the anatomical medical disease. Indeed, since the early 1980s the distinction between the discourse of medicine and the narrative of the patient, building on the work of Canguilhem (1966) and Merleau-Ponty (1968), has become a prominent basis for social research focusing on medicine, health and illness. For example, Mishler (1984) developed the dual construct of the voice of medicine and the voice of the life-world.

In this way, we differentiate the medical professionals' version of the stoma from the patient's version. The medical version of the stoma is a surgical solution to a failed function of the colon, surgically creating a junction of the colon or the ileum towards the abdominal skin. A temporary stoma protects the anastomosis following a large or small bowel resection and prevents suppuration pending healing, for example in the case of radiotherapy treatment for cancer, an ostomy appliance is added. A permanent stoma usually involves the introduction of an ostomy appliance.

In the narrative of the patient, the stoma is a singular representation that the subject constructs about this experience: how he or she lived and felt is expressed in what he or she says. From the perspective of Lacanian psychoanalysis, the person who speaks is a 'subject', and the subject is a speaking-being (*'parlêtre'*), a term coined by Lacan (1975, p56)[6].

Although the experience of the stoma is singular for each patient, there is an element that appears to be more or less constant and that is the affect of shame. I now offer some brief illustrations from our practice.

A patient, aged 50, suffering from colorectal cancer had a colostomy bag. He would shop in a large supermarket, but began to fear that his colostomy bag would open itself when he was out shopping and that the retained liquid would spill on him. After evoking this feared scene, he said, "people would think I wet myself." This was so outrageous for him to contemplate that he gave up his shopping outings, seized by the shame of a potential flow.

The feeling of shame refers to a shame experienced and lived by the patient. This 'felt shame' can be said to be in the background of the enunciation of the patient, which in turn re-actualises an affect of shame. In the field of linguistics, it is common to distinguish the statement, or utterance (what is said) from the enunciation (that which can be deduced from what is said) (Benveniste 1958). For this patient, we distinguish the 'felt shame' from the 'said shame'. Over the course of a period of four days, and through the psychic work between sessions, he speaks of a shame felt when out shopping. He speaks of this shame in a way that fixes the shame in a certain utterance "people would think I wet myself." The 'felt shame' can be heard by the clinician in the background of the statement. Then later in a different register he is able to say: "I am ashamed, embarrassed ...". We are referring to this as 'said shame'.

---

[6] See the glossary for an explanation of 'Lacanian psychoanalysis' and 'parlêtre'.

It is also striking that the shame, both ‘felt’ and ‘said’, in this instance is rooted in an anticipation of the gaze of others, what they might see. In our clinical experience it is most often the case that the shame has its genesis in the look. Another patient told the psychologist “it disgusts me to look. I would not be able to change it myself. It repulses me [...]”.

Here the statement refers to the problematic of the look (or the eyes as the site of the look). Indeed, this patient can no longer see the side of his body where the stoma is placed; he does not look at it. He seems to make a half turn. This avoidance of the look is a constant we observe for a considerable number of patients.

The patient encounters his or her own gaze. This look “reduces him to the feeling of shame” (Lacan, 1964, p98). In this way, shame indicates or signals the expression of an affect coming from a weakness in the constitution of the specular image of the body. We find evidence for this hypothesis in the relationships felt, and said, by patients in our clinic. In other words, this is an imaginary identification, through which shame appears as the privileged affect. Generally, shame signals an effect and an affect, in terms of the representations idealised by the patient. This affect refers to a certain moral conscience of the subject.

MOVING ON FROM THE SHOCK OF THE GAZE

Mrs. B., 78 years, has just undergone a definitive colectomy[7] and discovered postoperatively, without prior warning, that she now has a colostomy bag. Our first meeting takes place on day six after the operation. She is curled up in her bed, seeming gaunt, even emaciated. The nurses had warned the psychologist of a possible “syndrome of sliding” referring to a possibility the patient was giving up, mentally. In this case it meant she was no longer accepting food. Immediately after introducing myself (LD), and after a silence, she manages to say: “It’s horrible,” and repeats “it’s horrible,” while looking towards the other side of her body relative to her stoma. Her curled body seems twisted, as if she turned partially so as not to see one side of her body. She seems desperate and stunned. I stand on the side where her gaze is directed, meeting her where she can look. I say “You said to me it’s horrible, it’s horrible, could you explain...”. She answers “I don’t want to see it ... I don’t look at it ...”. The clinician can hypothesise this is ‘felt shame’? It is starting from this look that she begins to speak about it; from the look, she chooses to speak.

In our hospital setting there are a number of different roles involved in patient care, therefore together we construct a situation of multiple transferences. While cleaning and dressing the area around the stoma for the patient, the nurses are asked by the psychologist (who manages the transference) to take a long time over this process, all the time talking to the patient – about everything and nothing – inviting him or her to speak, but also to be able to look at the stoma site in their own time, at their own rhythm. This creates a care more prolonged than usual, and in the process there is a restoring of a “bath of language” (Mannoni 1970, p240). If the patient cannot look, at least he or she can hear someone talking about the care being given.

It is important for the patient to look at the stoma and/or the ostomy bag, and for this to take place with someone. Practising in this way we often observe positive results whereby the patient appropriates[8] the medical device over time. But in the case of this patient, she cannot grasp it. Transference is constructed after the first meeting. I meet her for a second clinical interview; she talks about what she likes including singing, which had become her activity in the retirement home in her village.

---

[7] See glossary of terms.

[8] The term ‘appropriate’ is used here as a verb to evoke the way successful adaptation to the medical device will involve the patient being able to make the ostomy appliance his or her own, incorporating it into his or her body schema, to accept it.

She explains that she does not want to eat: “I don’t want to see the bag fill itself.” There was a kind of dysaphagia, which led to the maintenance of parenteral nutrition. She talks about “this block”, which in French is ‘ça bouche’. I can also hear this as her mouth (‘sa bouche’). There are two reasons for this: firstly in French ‘ça bouche’ (this block) and ‘sa bouche’ (meaning her or his mouth) sound exactly the same when spoken; secondly, the word stoma is from the word for mouth in Greek. The patient sees the stoma, the opening, and, because of anxiety, can no longer take food in her mouth. The noticeable connection between these words, in the first instance because of their homophony in French, enables the practitioner to point towards a possible unconscious process preventing the patient from eating. This modality of practice for recovery insists on the equivocation of language, a central feature of Lacanian psychoanalysis. She answers “that makes a ball in my throat.” This statement designates an anxiety. I say “you feel an anxiety…” She agrees with this interpretation.

Gradually, she seems to become increasingly calm, having talked about what she likes, who she is. In the next session, in showing her colostomy bag, she says: “I’m not normal like everyone else … I’m ashamed of what I have” – shame is present and is said. The statement joins the enunciation. She calls her colostomy “Laffreuse[9]”, which means “the awful”. Then, she tells of an event with her mother when she was a child: “I was afraid to cross an obstacle, and my mother told me gently ‘go ahead’”. I end the interview on this utterance: “With food, as your mother had told you, go ahead.”

In parallel, the nurses continue their particular cares, more pronounced around the stoma. After three meetings, the state of abandonment has ceased. After the last nursing care, I meet Mrs B. for the fourth time. She tells me: “I’ve eaten a little.” The mother’s statement to “go ahead”, which has been internalised, suffices to reactivate her ability to take food and in the same movement she can appropriate the stoma.

Then she is able to evoke what she had seen the first day, on her belly: “I saw a piece of flesh of my own flesh”. Shock! Tumescence of the real body! She said “it’s part of me now,” touching the colostomy bag. Then she adds: “I saw the bag change.” I asked her what she saw … She places her hand with spread fingers before her mouth and, with a small smile, she said “I saw a little.” I emphasise her gesture. I do the same. She smiles. The living being was re-engaged. She can leave the hospital some days later, to stay at a convalescent home.

This clinical picture shows how the solution of a medical device such as an ostomy appliance is one requiring not only a process of accommodation that is entirely singular to the patient, but also one that he or she can appropriate visually. The patient, Mrs B., re-linked this process to an utterance made by her mother. If the stoma is more or less traumatic it is because this intervention is the second time, one that repeats in some way a first time when the subject was questioning in childhood (Freud 1895). At the current point of the second time, the stoma re-actualises this first moment. Subjects succeed in answering this question in childhood, with the singular theory that they invent; but now, with the stoma, they fix it at the level of the Imaginary[10].

The patient can no longer recognise him or herself in the body image from which he or she is alienated. It is a drama whereby the return of an object of the drive projects the patient into shock: a drive coming from the Real[11], through the look. The return of the drive explains the shock as well as the way out of the stunned state it induces. What was unified by the specular image does not hold anymore! The patient discovers “the piece of flesh” on the belly; the breaking through of the Real. For another patient it is the sight of the faecal

---

[9] “Laffreuse” in French is not a word as such. This signifier results from combining a definite article (‘la’, which is ‘the’ in English) and an adjective (‘affreuse’). While ‘l’affreuse’ lacks a noun, this signifier ‘laffreuse’ creates a noun to personify something she saw; it is a poetic way of naming, invented by her.

[10] See glossary of terms.

[11] See glossary of terms.

matter. It happens through the partial objects, as in the drive, in which the gaze is implicated each time. This sight, or image, refers to the Imaginary and may provoke a re-actualisation of shame, of submitting to the look of others. This look that the subject imagines or supposes from others, refers above all to his or her own looking. There is an alienation of the subject in the specular image (Lacan 1966). The clinician promotes the detachment from the shock, in knowing well this function of unconscious alienation. We called this detachment 'de-sideration'[12]. So, the patient's desire appears again and then the subject is able to say something about the shock. Another patient can name the stoma and ostomy bag, indicating a "that", to which the clinician responds, and the patient adds, "this shit" … In this desperate look, "shit" is a signifier, found by a subject, a metonymic[13] signifier. Another calls it "Laffreuse", or "Moricette" or "piece of flesh". There is a passing from the stunning of the shock to the shame felt, beginning with the distressed look, to the said shame. And the subject can then name the colostomy. In this sense, the representation of the shock comes unstuck, and is able to see itself, and say itself. A "parlêtre", or speaking-being, has to use language to translate his or her feeling and to transform the shock into singular signifiers.

IN CONCLUSION

One way of approaching psycho-pathology that might appear in the process of encountering the stoma, when this pathology is centred on the gaze, identifies the significance of the specular image of the body. With this unconscious image appears an affect, shame, and the subject is alienated to this image. The Other, as the locus of language and culture beyond the subject, must validate the mirror image of the patient, even if others have not been able to see what the patient sees. In other words, through the Other, in turn through the transference, the patient is enabled to appropriate the ostomy appliance. In clinical sessions with patients we therefore start with, and follow, their utterances to lead them toward representations that are susceptible to reducing anxiety.

Our clinical experience suggests thinking about the medical phenomenon of colostomy or ileostomy in terms of subjective structures; approaching patients one by one. Through a clinical application with a team of health professionals, engaging the affect of shame, it is possible to accompany the patient in some kind of restitution of psychic continuity[14].

---

[12] Sideration in French means shock or stunned, stupefied in English. Thus de-sideration is a progressive diminishing of this shock.

[13] In the case of a metonymic signifier, the part stands for the whole: shit is both faecal matter collected in bag and a denotation of the stoma and ostomy bag.

[14] There is a double meaning here in French: *"Remise en continuité"* is a French medical term, used in gastro-enterological surgery, meaning to reconstitute the normal way of the colon, when possible.

GLOSSARY

Colectomy

surgical removal of the whole (total colectomy) or part (partial colectomy) of the colon.

Colostomy

a surgical operation in which a part of the colon (large intestine) is brought through the abdominal wall, creating an opening called a stoma. The opening of the colon, is performed in order to drain or decompress the intestine. The colostomy may be temporary or permanent. An ostomy appliance, or bag, is usually worn over the colostomy opening. (See also stoma.)

Ileostomy

a surgical operation in which the ileum (lowest of three sections of the small intestine) is brought through the abdominal wall creating an opening for the discharge of contents, bypassing the colon. An ostomy appliance, or bag, is usually worn over the ileostomy opening. (See also stoma.)

Imaginary

a register of the subject, concerning the effects of the formative nature of the image (see Lacanian psychoanalysis).

Jouissance

is a French word meaning enjoyment. However, in the Lacanian psychoanalytic field it is generally not translated into English because Lacan has a particular rendition of the term involving a state of excitation, even a traumatic intrusion, where intensification of pleasure becomes painful as it reaches a limit. Jouissance concerns that which has not been thought or represented as such by the subject, and which is experienced physiologically in the body.

Lacanian psychoanalysis

an approach to psychoanalytic theory and practice developed by Jacques Lacan (1901-1981), who claimed to return to Freud. His focus is primarily on how we are ‘parlêtres’, that is, how our way of being human is fundamentally grounded in the fact of language, as beings who speak. This being is a subject, with both consciousness and an unconscious, constructed through the demands of the parent(s), or caregivers, and is traversed by three registers: real, symbolic and imaginary.

Parlêtre

a neologism coined by Lacan (1975, p.56), combining the notions of ‘speaking’ and ‘being’ into one word in French. He develops this concept to avoid a substantialist notion of being, such as within phenomenology, privileging rather the subject’s formation through its relation to language. For this concept he draws on the work of linguists such as Ferdinand de Saussure, Roman Jacobson, Emile Benveniste, and Michel Arrivé. As such, the subject is not a substance but a fact, or effect, of language: “it is in and through language that man (sic) constitutes himself as ‘subject’” (Benveniste 1958, p.259).

Partial drive

the drive comes from sensations in the body, deriving its support from the corporeal orifices. The drive’s aim is to circle around the object of the drive rather than achieving some imagined goal of full satisfaction. The concept of the drive is central to Freud’s theory of sexuality. Both Freud and Lacan distinguish the drive from instinct, in other words it is not a fixed, biologically innate relation to an object, but rather a relation that varies between subjects and is contingent on their specific histories. For Lacan, all drives are partial drives because they only ever partially represent the sexuality of the subject.

Real

is a register of the subject, concerning that which is impossible to represent, to symbolise, to put into words (see Lacanian psychoanalysis).

Shame

in psychoanalysis shame is an affect constituted on the unconscious traces of early experiences of satisfaction or pain. It relates to the perception and meaning attributed to the look or gaze of the Other. Referring to a feeling of shame experience by Sartre, Lacan (1964, p.98) explained that the look "that surprises him in his role as voyeur" is "a look my ego imagined coming from the field of the Other." Shame is thus situated in the imaginary register.

Stoma

is a generic term for a surgical opening of a tube such as the colon or ileum that has been brought to the surface on the abdomen. This term is specialised in relation to the localisation of the affected tube, thus colostomy (for a stoma of the colon) and ileostomy (for a stoma of the ileum).

Transference

Freud noted the influence, indeed effects that the medical doctor can have on the ill person through suggestion. Such an influence becomes possible through a process of transference involving a displacement from another situation deriving from the ill person's past, to the current relation with the health professional. Transference is therefore a resource insofar as something, sometimes from earliest childhood, is set in motion, which is then replayed in the relationship between the ill person and the carer. "Like Freud (1900/1976), Lacan (1988) argued that transference is how the unconscious is given form" (Evans 2007, p.193).

Unconscious

The unconscious is a central concept of psychoanalysis, concerning a part of the topological organisation of the psychic apparatus. According to Freud, unconscious formations might mark their presence in slips of the tongue, bungled actions, dreams, symptoms, etc. Unconscious processes indicate a return of infantile theories. The unconscious is present in the transference.

REFERENCES

Ang Seng Giap M., Siah R., Jiat C. and Klainin-Yobas, P. 2013. Stressors relating to patient psychological health following stoma surgery: An integrated literature review. *Oncology Nursing Forum*, 40(6):587-594.

Benveniste, E. 1958. De la subjectivité dans le langage (edn 1966). *Problèmes de linguistique générale*, 1. Gallimard: Paris. [Glossaire]

Canguilhem, G. 1966. *The normal and the pathological* (edn 1989). Translated by Carolyn R. Fawcett. Zone Books: New York.

Evans, A.M. 2007. Transference in the nurse-patient relationship. *Journal of Psychiatric and Mental Health Nursing*, 14(2):189-195.

Ferreira-Umpiérrez, A. 2014. Experiences of family members of patients with colostomies and expectations about professional intervention. *Revista Latino-Americana de Enfermagem*, 22(2):241-247.

Freud, S. 1895. *La naissance de la psychanalyse*. PUF: Paris.

Freud, S. 1910. Le trouble psychogène de la vision dans la conception psychanalytique. *Névrose, psychose et perversion*. PUF: Paris, 167-174.

Freud, S. 1915. *Métapsychologie*. Gallimard, Paris.

Jeanroy-Beretta, S. 2011. Looking at a difference. *Psycho-oncologie*, 5(1):45-55.

Johnsen, V., Skattebu, E., Aamot-Andersen, A. and Thyberg, M. 2009. Problematic aspects of faecal incontinence according to the experience of adults with spina Bifida. *Journal of Rehabilitation*, 41:506-511.

Kimura, C.A., Kamada, I., Guilhem, D. and Costa Fortes, R. 2013. Perception of sexual activities and the care process in ostomized women. *Journal of Coloproctology*, 33(3):145-150.

Kimura, C.A., Kamada, I., Guilhem, D. and Sadi Monteiro, P. 2013. Quality of life analysis in ostomized colorectal cancer patients. *Journal of Coloproctology*, 33(4):216-221.

Krouse, R. Grant, M, Ferrell B., Dean G., Nelson R., Chu D. 2007. Quality of Life Outcomes in 599 Cancer and Non-Cancer Patients with Colostomies. *Journal of Surgical Research*, 138(1):79-87

Krouse, R., Grant, M., Rawl, S., Mohler, J., Baldwin, C., Coons, S., McCorkle, R., Schmidt, M. and Ko, C. 2009. Coping and acceptance: The greatest challenge for veterans with intestinal stomas. *Journal of Psychosomatic Research*, 66(3):227-233.

Lacan, J. 1964. *Seminar XI Les quatre concepts fondamentaux de la psychanalyse*. Le Seuil: Paris

Lacan, J. 1975. *Seminar XXIII Le Sinthome*. Le Seuil:Paris.

Landers, M., McCarthy, G. and Savage, E. 2012. Bowel symptom experiences and management following sphincter saving surgery for rectal cancer: A qualitative perspective. *European Journal of Oncology Nursing*, 16(3):293-300.

Mannoni, M. 1970. *Le psychiatre, son fou et la psychanalyse*. Le Seuil: Paris.

Merleau-Ponty, M. 1968. *The visible and the invisible.* Northwestern University Press: Evanston.

Mishler, E.G. 1984. *The discourse of medicine. Dialectics of medical interviews.* Ablex Publishing Co.: Norwood, NJ.

Northouse, L.L., Schafer, J.A, Tipton, J. and Metivier, L. 1999. The concerns of patients and spouses after the diagnosis of colon cancer: A qualitative analysis. *Journal of WOCN*, 26: 8-17.

Popek, S., Grant, M., Gemmil, R., Wendel, C., Mohler, J., Rawl, S., Baldwin, C., Ko, C., Schmidt, M. and Krouse R. 2010. Overcoming challenges: life with an ostomy. *The American Journal of Surger*y, 200(5):640-645.

Siew Hoon, L., Chi Sally, C.W. and Hong-Gu, H. 2013. Effect of psychosocial interventions on outcomes of patients with colorectal cancer: A review of the literature. *European Journal of Oncology Nursing*, 17(6):883-891.

Taylor, C., Richardson, A. and Cowley, S. 2010. Restoring embodied control following surgical treatment for colorectal cancer: A longitudinal qualitative study. *International Journal of Nursing Studies*, 47(8):946-956.

Taylor, C., Richardson, A. and Cowley, S. 2011. Surviving cancer treatment: An investigation of the experience of fear about and monitoring for, recurrence in patients following treatment for colorectal cancer. *European Journal of Oncology Nursing*, 15(3):243-249.

Thorpe, G., McArthur, M. and Richardson, B. 2014. Healthcare experiences of patients following faecal output stoma-forming surgery: A qualitative exploration. *International Journal of Nursing Studies*, 51(3):379-389.

Zheng, M-C., Zhang, J-E., Qin, H-Y., Fang, Y-J. and Wu, X-J. 2013. Telephone follow-up for patients returning home with colostomies: Views and experiences of patients and enterostomal nurses. *European Journal of Oncology Nursing*, 17(2):184-189.

Access to healthcare services for people living with HIV experiencing homelessness – a literature review

AUTHOR

Elizabeth Crock
PhD, MPH, RN, BSc, Grad Dip Ed, ACRN, Certificate in Infectious Disease Nursing
Clinical Nurse Consultant – HIV – Northern and Western Regions and HIV Team Coordinator
Royal District Nursing Service, c/o RDNS Homeless Persons' Program
113 Rosslyn Street, West Melbourne, Victoria, Australia
lcrock@rdns.com.au

KEY WORDS

HIV, PLHIV, assertive outreach, community nursing, engagement and retention in HIV care

ABSTRACT

Objective
People living with HIV (PLHIV) who are homeless or at risk of homelessness experience significantly worse health outcomes than those in stable housing. They are more likely to be diagnosed late, use substances, engage in high–risk sexual activities and have difficulty adhering to treatments. This review identifies strategies described and evaluated in the international social science literature which can improve access to HIV–treatment and care for PLHIV who are homeless or at risk of homelessness, to inform policy and service development in Australia.

Setting
The principle research question addressed in this review is:

- What strategies enhance the ability of PLHIV who are homeless to access health care services, in particular community nursing services?

A literature review of social science research relating to the research question in the international and Australian contexts was conducted.

Primary argument
No literature was identified that addressed access to community nursing services for PLHIV experiencing homelessness in Australia, and very little internationally. Community–based nursing organisations are well–placed and experienced in engaging marginalised groups in health care. Specific interventions need not always be developed: rather, better use could be made of existing services that utilise assertive outreach models of care and co–location with other services.

Conclusion
HIV–specialist community nursing services could be better integrated with homelessness services to enhance access to care, link PLHIV into the health system and keep them engaged in care. The absence of research on engagement with HIV specialist community nursing services demands exploration.

INTRODUCTION

By end 2014, there were approximately 27,000 people living with HIV in Australia; over 70% of these are men who have sex with men and approximately 10% are women. Fewer than 2% can be attributed to sharing injecting equipment (The Kirby Institute 2015).

Data is limited on the numbers of homeless people living with HIV in Australia. However, the Australian Bureau of Statistics (ABS) 2014 General Survey indicated that lesbian, gay or people of 'other' sexual orientation were more likely to report at least one episode of homelessness than were heterosexual people (ABS 2014), and a 2013 study from the University of Adelaide concluded that lesbian, gay, bisexual, transgender and intersex (LGBTI) people are over-represented in homeless populations (Oakley and Bletsas 2013). Homelessness and unstable housing amongst youth have been associated internationally with increased HIV infection risk (Marshall et al 2009).

In some Australian states, specific housing associations have been established representing the interests of people living with HIV, indicating that housing and homelessness are significant concerns for this population. For example, in Victoria, the AIDS Housing Action Group was established in 1990 and in a recent parliamentary inquiry, this group described specific issues such as same sex domestic violence, refugee and asylum seeker status, stigma, discrimination and violence against people living with HIV within public housing, the impact of living with a chronic, complex and life threatening illness, social isolation and ostracisation from family and community, ageing with HIV and a range of other issues potentially contributing to housing instability and homelessness (AIDS Housing Action Group 2011).

Internationally, HIV prevalence is highest among the marginalised (Wakeman et al 2009). There are high rates of homelessness amongst PLHIV and high rates of HIV amongst the homeless (Cheever 2007; Douaihy et al 2005). PLHIV who are homeless or at risk of homelessness experience significantly worse health outcomes than those in stable housing (Cheever 2007), and are at greater risk of hospitalisation (Nosyk et al 2007). Homeless PLHIV are more likely to be diagnosed late (Nelson et al 2010), to use substances, engage in high–risk sexual activities and have difficulties with treatment adherence (Roy et al 2011; Friedman et al 2009; Stein et al 2009; Marshall et al 2008; Metraux et al 2004). These factors mean they can risk transmitting HIV to others, with reduced access to HIV prevention education (Stein et al 2009). The prevalence of HIV infection amongst the homeless has been estimated to range from 0.3% to 21.1% (Beijer et al 2012). One study conducted jointly in Australia and the United States of America (USA) indicated that 2% of homeless youth in both countries self-reported that they had HIV infection (Milburn et al 2006), and rates of up to 20% have been reported in the USA (National Coalition for the Homeless 2007).

It is also known that in the USA at least 20% of PLHIV are unaware of their infection with much higher figures amongst the most marginalised (Chen et al 2012). In Australia, it is estimated that about 14% (range 11-21%) of all HIV infections are undiagnosed (The Kirby Institute 2014). Access to care for this group is a significant public health issue worldwide (Beijer et al 2012).

It is documented that homeless PLHIV experience reduced access to health care including HIV primary care, and a range of interventions has been explored to improve or increase their access to HIV care, and to retain them in care (Thompson et al 2012). Little published research deals specifically with their access to specialist HIV community nursing services.

In the Australian setting, the Victorian HIV Strategy states:

'Sub–groups of people with HIV/AIDS continue to experience difficulties in accessing treatment care and support services. Agencies are encouraged to identify vulnerable groups of people with HIV/AIDS and to design a range of strategies and services to better meet their needs. These strategies include:

- Making existing services more flexible and available to people from marginalised sub-groups.
- Developing collaborative partnerships between HIV/AIDS services and mental health, migrant health, homeless youth, Needle and Syringe Programs and women's health services' (Victorian Department of Human Services 2002, p26).

Community nursing services in Australia are often central to linking people into HIV medical care and primary health care. In several states, community nursing services have close partnerships with AIDS Councils (referred to internationally as AIDS Service Organisations [ASOs]) (Crock and Frecker 2008). Homeless PLHIV may come in contact with ASOs and be linked in with community nursing organisations, or they may come in contact with the nursing service first through specialist programs or following hospital admission. Enabling them to access HIV care and retaining them in care can be challenging, but community nursing services with expertise in HIV are well-placed to play a significant role in engagement in HIV primary care (Purcell et al 2006).

The principle research question addressed in this review is:

- What strategies enhance the ability of PLHIV who are homeless to access health care services, in particular community nursing services?

Secondary questions considered for this review include:

- What are the barriers to access to health care services for PLHIV who are homeless?
- What factors contribute to retention in care for PLHIV who are homeless or at risk of homelessness or marginalised for other reasons?

SEARCH STRATEGIES

A literature review of social science research relating to the research questions in the international and Australian contexts was conducted (2002-2012). The search strategy included the use of the electronic databases Global Science, SCOPUS, Social Work, PsycINFO, CINAHL and the Australian HIV/AIDS Database. Search terms used were: HIV and/or AIDS, homeless or homelessness, access to HIV care, access to services, barriers to access, and community nursing. Further research was conducted seeking publications on the National Centre in HIV Social Research website and the Australian Federation of AIDS Organisations' websites, including the journal 'HIV Australia'.

Little information on HIV and homelessness in Australia was found, hence this review draws principally from international literature. No literature was located that specifically addresses strategies to enhance access to HIV specialist community nursing, so the focus was broadened to include strategies to enhance access to and engagement with HIV primary care and health services generally for the homeless and for people marginalised for other reasons such as injecting drug use, minority status, mental health problems, or all of these. The terms 'retention in HIV care', 'engagement' and 'marginalised' in various combinations were subsequently added to the original searches. Twenty one articles were located that were considered relevant to the subject area, and of these, eight were considered relevant for more in-depth review to address the research questions.

SUMMARY AND ANALYSIS

Two studies reported on research into PLHIV living in single room occupancy hotels (SROs). SROs in New York City are used as emergency housing for homeless PLHIV.

The first of these examined service utilisation patterns amongst chemically dependent homeless PLHIV to evaluate the program theory that engagement with outreach services is ‘a mediating variable that increases service utilisation’ (Shepard 2007, p26). This study comes from a positivist paradigm, although it examined a model of care and outreach (harm reduction) that contrasts with a medical model and promotes empowerment and self–determination (Shepard 2007).

The population studied was a group of homeless PLHIV with a history of chemical dependence residing in SROs in New York City. Two cohorts were compared – individuals who were engaged through ‘harm reduction outreach’ and those who ‘walk–in’ to a drop in centre (Shepard 2007, p26). Outreach was defined as a model including: crisis intervention; addressing problems; skills building; education; risk reduction education; and discussion, through: medical providers and peer workers working together; evening outreach hours; and tools (e.g. syringe exchange, consistent services, transportation) (Shepard 2007). Outreach interventions were based on three theoretical frameworks – individual behaviour change, community and social networks, and relationship–building between provider and client (Shepard 2007, p27). Once a trusting relationship was established, services were provided in clients’ rooms, or at the hospital or drop–in centre.

‘Data mining’ was the method used – secondary analysis of data already collected for other purposes – in this case, service utilisation patterns among participants engaged through outreach, compared with those engaged at the drop–in centre (Shepard 2007, p28). The hypothesis tested was that harm reduction outreach allows a hard–to reach population of PLHIV to access health care services.

Significant relationships between harm reduction services, medical care, housing placement and access to health care were identified. The authors concluded that their program theory was upheld by the data – harm reduction outreach, designed to reduce barriers to services and offering tools for better health, does increase access to medical care and provides strategies to reduce barriers. Limitations included that data mining excludes those outside the system, and does not include participants’ perspectives.

The second study into PLHIV in SROs (Sohler et al 2009) examined gender disparities in HIV health care among the severely disadvantaged in the Bronx and Manhattan, New York City. Within a positivist paradigm, the researchers hypothesised that women are less likely to engage in optimal HIV care utilisation than men, and sought to explore reasons for disparities. They asked whether gender–based disparities in HIV related health care utilisation exist, and if so, whether they could be explained by participants’ characteristics (education level, insurance status, drug use, housing) and/or their attitudes towards the health care system (such as trust in providers, engagement with workers, perceptions of access to care).

Methods used included interviews with a convenience sample of HIV–infected women and men living in 14 different single occupancy hotels in Manhattan and the Bronx in New York, between August 2004 and June 2005. Potential participants resided in an SRO, were HIV positive, at least 18 years of age, and English– or Spanish–speaking. Interviews were administered using Audio–Computer–Assisted Self–Interviewing (ACASI) technology. Standardised questionnaire items included health status, drug and alcohol use, and socio–demographic information and use of HIV health services. Measures of attitudes to the health system and providers were included, encompassing perceptions of access, mistrust of health care system, trust in providers, engagement, and perceptions of personal treatment control.

Medical records were reviewed over the previous six month period and quantitative data extracted on HIV visits and CD4 counts. Analyses compared women and men on three outcome variables – use of primary HIV care services; use of emergency departments; and hospitalisations. Data was compared for women and men on demographic, socio–economic and behavioural characteristics.

Women were significantly less likely than men to engage in optimal HIV care. The observed disparity could not be explained, even after adjusting for further disadvantage (lower educational level, decreased likelihood of having health insurance). The researchers postulated that women's greater care–giving responsibilities may help explain the disparity – women may prioritise care of others over their own health care, although the study did not directly address this.

Findings suggest that strategies to improve access to HIV services need to consider possible gender differences and attempt to address them accordingly, and the study provides evidence for inequitable HIV care access for homeless women.

Another study explored factors associated with engaging marginalised PLHIV in care (Rumptz et al 2007). This study was situated within a constructivist paradigm, recognising that social determinants of health affect ability to engage in care. In some ways, however, the study can be described as 'cross–theoretical' (Bourgois 2002, p259), because it used strictly quantitative methods including epidemiological analysis, aligned with a positivist paradigm. This study provided a profile of PLHIV not fully engaged in HIV care, examined barriers to engagement and evaluated outreach interventions. It can be described as descriptive, evaluative or action research (Ovretveit 2002).

The populations studied were: sporadic users of HIV care; those receiving no care; and those who were engaged in care. The sample was recruited from 10 urban sites with outreach and advocacy interventions in place. Various outreach approaches existed, including mobile vans and street outreach.

Methods used were face–to–face questionnaire completion, with a purposive sample of 984 participants (at intake and 12–month follow up) and review of medical chart data.

Those who were not engaged in care, or only 'somewhat engaged' were more likely to report: drug use in the past 30 days; practical barriers to care (finding convenient appointment times, having no phone), health belief barriers to care ('faith will help', 'too healthy', 'no cure for HIV'); and to have a greater number of unmet needs than those engaged in care (Rumptz et al 2007, pS–35). The authors concluded that interventions addressing structural barriers and unmet needs, negative health beliefs and drug use are promising strategies to engage marginalised PLHIV in HIV care.

Another USA study examined characteristics of homeless HIV–positive outreach responders and their success in HIV primary care (Tommasello et al 2006). This study sits within the positivist paradigm.

The population accessed was homeless PLHIV with mental illness and substance use disorders in Baltimore, Maryland. The study was descriptive, utilising quantitative survey research methods to ascertain the intervention's effects on engagement with health services.

The intervention comprised intensive street outreach to homeless PLHIV with substance use and/or mental health disorders in soup kitchens, shelters, abandoned buildings shooting galleries and prisons. Workers built relationships with clients and provided items to meet immediate needs, whilst assessing for HIV risks, mental illness and drug use problems. Those who then came to the clinic received integrated health care, social services and case management.

Participants were assessed for changes to health measures over a 12–month period. Health surveys were conducted face–to–face (Medical Outcomes Study Health Survey and Patient Health Questionnaire) at baseline and scheduled for follow–up at 12 months, at 11 January 1998 and at 30 August 2001, with 110 clients enrolled.

Almost half of those enrolled in the study engaged with clinic services. At baseline, they had few service connections, and the majority returned for follow–up interview 12 months later. Clients' need for services declined in almost every area; mental health and drug use showed significant improvement. The authors speculated that success was based on the development of reciprocal, caring relationships between outreach workers and clients, stating that 'in some cases, the relationship with the outreach worker may have been the most meaningful one in the client's life' (Tommasello et al 2006, p915). Generalisations cannot be made, due to potential sample bias and the lack of a comparison group.

A USA–based qualitative study examined the role of outreach in engaging and retaining PLHIV in medical care, from the perspective of PLHIV (Rajabiun et al 2007). This study belongs to the interpretivist paradigm (Sale et al 2002).

The population sampling frame was 'underserved' and 'hard to reach' PLHIV from seven sites participating in a funded Outreach Initiative. Seventy six participants were recruited purposively (Coyne 1997) for in–depth interviews from six cities, each site recruiting 8–16 participants. Those considered at high risk of disengagement or with limited access to health care were prioritised for inclusion.

Interviews were transcribed and analysed using QSR NVivo software and a grounded theory approach. Coding was undertaken and codes were collapsed into conceptual categories. The researchers sought to identify participants' history of health–seeking behaviour and experience within the health care system, barriers and facilitators to care, and the role of outreach interventions in assisting with engagement and retention in HIV care (Rajabiun et al 2007).

Data analysis indicated that study participants tended to 'cycle in and out of care' (Rajabiun et al 2007, pS–23). Factors identified as influencing engagement and retention in care included: level of acceptance of HIV status; ability to cope with stigma; substance use and mental health; health care provider relationships; presence of external support; and addressing systemic barriers. For instance, those who were not in care or unstable in care often denied their diagnosis or didn't see it as a priority. Those in care preferred to manage their HIV proactively. Participants who were not in care or unstable in care described experiences of discrimination and stigmatisation in healthcare, whereas those in care seemed to have coping strategies to deal with stigma, such as ignoring others' perceptions about HIV. Positive health care provider relationships were critical for those in care; in contrast, those not in care described negative experiences with providers.

Helpful outreach program strategies identified by PLHIV included: dispelling myths about HIV; improving knowledge; providing help and support with HIV care; building skills and ability to deal with HIV; reducing barriers to services (e.g. by organising transport, food, identification cards) and providing support networks. The important insight offered by this research was that engagement with HIV care services can be cyclical for homeless PLHIV.

A secondary publication drawing upon data derived from the same in–depth interview described above, examined the provider role in engagement (Mallinson et al 2007). Using a grounded theory approach, hence interpretivist in nature, narrative data from the interviews was analysed. Health care provider behaviours that clients perceived as validating, engaging and partnering enhanced and facilitated engagement and retention in care, whereas behaviours viewed as patronising or paternalistic hindered engagement and retention. Communication skills and empathy were also perceived as beneficial to engagement.

A Canadian study reported on a peer–driven intervention to improve access to HIV care and treatment for street–entrenched HIV–positive women, including transgender women (Deering et al 2009). The research design and methods used to evaluate the model indicate a strong commitment to positivism.

The model entailed four elements: weekly peer support meetings with the women; training for the women to become health advocates or 'buddies' for each other; a peer outreach service and a drop–in nursing service (Deering et al 2009, p604). Data collection consisted of three questionnaires – baseline intake assessment by a nurse, weekly questionnaire administered by the health advocates and a 3–monthly health questionnaire. Women were recruited through self–referral or through referral from other HIV providers, other health provider or friends in January through to August 2007 according to specific eligibility criteria.

Data from 20 participants were analysed, with trends of adherence to antiretroviral therapy by several behaviour variables known to affect adherence being examined (housing stability, drug use), exposure to the intervention and adherence, and the relationship between self–reported adherence and pharmacy recorded adherence. Viral load outcome measures (measures of HIV replication in the blood) were also recorded and analysed. Results indicated that the peer–driven intervention may have had a positive effect on adherence, since adherence either increased or remained the same for 75% of the women enrolled, and viral load measures decreased (compared with the year prior to enrolment). For higher risk women, the intervention may have been even more beneficial.

With a small sample size, statistical power was poor, but the authors reported the women involved appreciated the small group for peer support group meetings to promote cohesiveness and close bonds between them. Unfortunately, the purely quantitative approach precluded analysis of the women's own perspectives on the program which may have provided richer data with such a small group of participants.

Two Australian papers addressed issues of barriers to access to services for marginalised PLHIV within the context of service descriptions. The first utilised a case study–based approach, describing difficulties accessing housing, support, aged care, neuropsychological assessments and other services experienced by a Vietnamese injecting drug user with a criminal history, and a severe physical disability due to HIV–related cerebral toxoplasmosis (Crock et al 2011). The authors adopted a critical stance in articulating and describing structural barriers experienced by their client, and as such the research can be described as belonging to a critical paradigm (Willis 2007). These authors identified barriers to access based on covert, systematic discrimination and stigma, and emphasised the need for persistent advocacy, collaboration with the criminal justice system, a commitment to social justice, equity in health care, strong advocacy, with the case study as illustration, leading to stability and a positive outcome (Crock et al 2011). The case study approach enabled the authors to draw out in–depth personal data in narrative form and themes to be identified that helped to overcome barriers.

The second Australian paper described a community–based nursing role in caring for PLHIV that enhanced the care of PLHIV who have difficulty accessing health care. Located within a team of HIV specialist nurses in a not–for–profit community nursing organisation in Melbourne, Australia and operating within a flexible model of care, this new role complemented the existing program by providing HIV specialist nursing assessment and continuity of care to address the growing number of HIV clients with complex needs. This was primarily a descriptive study, within a post–positivist or constructivist paradigm. The roles described involve assertive outreach, care–coordination and inter–agency collaboration. Using case studies and interviews with specialist HIV nurses, the authors highlight the importance of a client and family–centred approach, participatory care planning and care coordination, cultural competence, and adherence to principles of social justice and equity.

Interestingly, these two papers which were principally descriptive in nature, provide insight into strategies used by community nurses to engage marginalised PLHIV in care, and how, in turn, the community nurses guide and assist PLHIV to gain confidence to navigate the wider health care system. 'HIV system navigation' has been proposed in other settings as a way to improve access to HIV care for marginalised PLHIV (Bradford et al 2007, pS–49). This area requires further research as it is a little understood element of the HIV service system in Australia. It is noteworthy that a recent report documenting models of access and service delivery for PLHIV in the Australian setting omits discussion of specialist HIV community nursing services and their role in engaging PLHIV in care or in retaining people in care (Savage 2009).

CONCLUSION

This review identifies strategies described and evaluated in the social science literature which can improve access to HIV–care services for PLHIV who are homeless, at risk of homelessness or marginalised in other ways, partially answering the research questions. No literature was found that specifically addressed access to community nursing services for homeless PLHIV in the Australian setting, and very little internationally. Community–based nursing organisations can be well–placed and experienced in engaging groups such as these in care, indeed they have a long history of doing so (Archer 1904). This may mean that specific outreach interventions may not need to be developed in some settings, but rather, better use may be made of existing services that utilise assertive outreach models of care and co–location with other services (Bennett 2010). There is room to suggest that HIV–specific community nursing services could be better integrated with homelessness services to enhance access to care and link into the HIV medical and health system (see for example The Haymarket Foundation Inc 2011).

A broad range of quantitative and qualitative methods was used in the papers reviewed – survey research, in–depth interviews, case studies, epidemiological, and descriptive and comparative statistics, with most using quantitative methods. Many studies, although clearly social science, were situated in positivist paradigms, with an emphasis on measurement, quantification and statistical analysis of potential factors affecting engagement and retention in HIV care. Qualitative work including the use of in–depth interviewing and case studies provide additional insights into clients' and staff's perspectives into the research questions.

Assertive outreach (versus drop–in), harm reduction outreach, peer–driven outreach, case management, and interpersonal relationships between health workers and homeless PLHIV were significant factors that resulted in better engagement, improvement in access to and retention in HIV care. Reductions in drug use, structural barriers and number of unmet needs were all associated with engagement with services. Homeless PLHIV identified practices such as dispelling myths about HIV, improving knowledge, providing help and support with HIV care, building skills, providing practical support, and developing relationships as helpful to engagement. They appreciated validating and partnering relationships, and found patronising attitudes unhelpful. Philosophical and ethical approaches that focus on equity, social justice and structural advocacy provide promising but limited evidence for improved access to HIV care and other services. The establishment of HIV–specific roles within existing community nursing services can help to improve access to services for this group. The role of stigma and discrimination in deterring homeless PLHIV from accessing care was raised in all studies reviewed.

Barriers to access to services for homeless PLHIV have been identified in the literature. Poverty, negative past experiences, health beliefs (denial of HIV), recent drug use, mental health problems, drug use, were confirmed in this literature review. Experiences of HIV–related stigma and discrimination within the health care system compounded these issues for participants in some studies reviewed (Crock et al 2011, Rajabiun et al 2007). Some women with HIV including transgender women, may experience even poorer access to HIV care (Sohler et al 2009).

The broad range of methods described in this review provide insights into strategies to enhance and improve access to and engagement in HIV care. Further qualitative research into the complex issues faced by homeless

PLHIV requiring care could provide deeper knowledge of barriers they confront, and strategies that may promote and enhance their ability to access care. The absence of specific research into engagement with HIV specialist community nursing services demands further exploration.

REFERENCES

AIDS Housing Action Group. 2011. Submission to the legislative Council Family and Community Development Committee: Inquiry into the Adequacy and Future of Public Housing in Victoria. Parliament of Victoria. edited by P Cerveri. Melbourne.

Archer, Sister. 1904. District Nursing – Lecture given to the Nurses of the R.V.T.N.A. at the Austral Salon on 27th April 1904,. UNA: The *Journal of the Royal Victorian Trained Nurses' Association,* 2(3):35-36.

Australian Bureau of Statistics. 2014. General Survey. Canberra: Commonwealth of Australia.

Beijer, U., Wolf, A. and Fazel, S. 2012. Prevalence of tuberculosis, hepatitis C virus, and HIV in homless people: a systematic review and meta-analysis. *The Lancet Infectious Diseases,* 12(11):859-870.

Bennett, G. 2010. Submission to Executive Officer, Family and Community Development Committee, Parliament of Victoria: Enquiry into the Adequacy and Future Directions of Housing Services in Victoria. Melbourne: Royal District Nursing Service Homeless Persons' Program.

Bourgois, P. 2002. Anthropology and epidemiology on drugs: the challenges of cross-methodological and theoretical dialogue. *The International Journal of Drug Policy,* 13(4):259-269.

Bradford, J.B., Coleman, S. and Cunningham, W. 2007. HIV system navigation: An emerging model to improve HIV care access. *AIDS Patient Care and STDs,* 21(Suppl 1):S49-S58.

Cheever, L.W. 2007. Engaging HIV-Infected Patients in Care: Their Lives Depend on It. *Clinical and Infectious Diseases,* 44(11):1500-1502.

Chen, M., Rhodes, P., Hall, H.I., Kilmarx, P.H., Branson, B.M. and Valleroy, L.A. 2012. Prevalence of undiagnosed HIV infection among persons aged >= 13 years - National HIV Surveillance System, United States, 2005-2008. *Morbidity and Mortality Weekly Report Supplemtents,* 61(2):57-64.

Coyne, I.T. 1997. Sampling in qualitative research. Purposeful and theoretical sampling; merging or clear boundaries? *Journal of Advanced Nursing,* 26(3):623-630.

Crock, E., Walklate, T. and Strajt, S. 2011. 'I have good life here' - A Vietnamese man's journey to access services. *HIV Australia*, 9(1):20-22.

Crock, L. and Frecker, J. 2008. A unique partnership: trial of an HIV/AIDS mental health/drug and alcohol nursing role in a District Nursing Service. *HIV Australia,* 8(7):30.

Deering, KN, Shannon, K., Sinclair, H., Parsad, D., Gilbert, E., and Tyndall, M. 2009. Piloting a Peer-Driven Intervention Model to Increase Access and Adherence to Antiretroviral Therapy and HIV Care among Street-Entrenched HIV-Positive Women in Vancouver. *AIDS Patient Care and STDs,* 23(8):603-611.

Douaihy, A.B., Stowell, K.R., Bui, T., Daley, D. and Salloum. I. 2005. HIV/AIDS and homelessness, Part 1: background and barriers to care. *AIDS Read,* 15(10):516-20, 527.

Friedman, M.S., Marshal, M.P., Stall, R., D.P. Kidder, D.P., Henny, K.D., Courtenay-Quirk, C., Wolitski, R.J., Aidala, A., Royal, S. and Holtgrave, D.R. 2009. Associations between substance use, sexual risk taking and HIV treatment adherence among homeless people living with HIV. *AIDS Care,* 21(6):692-700.

Mallinson, R.K., Rajabium, S. and Coleman, S. 2007. The provider role in client engagement in HIV care. *AIDS Patient Care and STDs,* 21(Suppl 1):S77-S84.

Marshall, B.D.L., Kerr, T., Livingstone, C., Li, K., Montaner, J. and Wood, E. 2008. High prevalence of HIV infection among homeless and street-involved Aboriginal youth in a Canadian setting. *Harm Reduction Journal,* 5(35):1-5.

Marshall, B.D.L, Kerr, T, Shoveller, J.A., Montaner, J.S.G. and Wood, E. 2009. Structural factors associated with an increased risk of HIV and sexually transmitted infection transmission among street-involved youth. *BMC Public Health,* 9(7).

Metraux, S., Metzger, D.S.and Culhane, D.P. 2004. Homelessness and HIV Risk Behaviours among Injection Drug Users.*Journal of Urban Health: Bulletin of the New York Academy of Medicine,* 81(4):618-629.

Milburn, N.G., Rotheram-Borus, M.J., Rice, E., Mallet, S. and Rosenthal, D. 2006. Cross-national variations in behavioral profiles among homeless youth. *American Journal of Community Psychology,* 37(1-2):63-76.

National Coalition for the Homeless. 2007. HIV/AIDS and Homelessness. In NCH Fact Sheet #9. Washington: National Coalition for the Homeless.

Nelson, K.M., Thiede, H., Hawes, S.E., Golden, M.R., Hutcheson, J.R., Carey, J.W., Kurth, A. and Jenkins, R. 2010. Why the Wait? Delayed HIV Diagnosis among Men Who Have Sex with Men. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 87(4):642-655.

Nosyk, B., Li, X., Sun, H. and Anis, A.H. 2007. The effect of homelessness on hospitalisation among patients with HIV/AIDS. *AIDS Care,* 19(4):546-553.

Oakley, S, and Bletsas, A. 2013. Understanding the circumstances and experiences of young lesbian, gay, bisexual, transgender, intersex and gender questioning people who are homeless in Australia: a scoping study. Final report. Adelaide: University of Adelaide.

Ovretveit, J. 2002. *Action Evaluation of Health Programmes and Changes: a handbook for a user-focussed approoach*. Oxford: Radcliffe Medical Press.

Purcell, A., Gloede, D., Amato, C., Reeves, S., Kralik, D., Telford, K., Howard, N. and Dennes, L. 2006. *Development of a model and philosophy of RDNS HIV/AIDS Community Nursing Care.* Glenside, South Australia: Royal District Nursing Service Foundation of SA.

Rajabiun, S., Mallinson, R.K., McCoy, K., Coleman, S. and Drainoni, M.L. 2007. 'Getting me back on track': the role of outreach interventions in engaging and retaining people living with HIV/AIDS in medical care. *AIDS Patient Care and STDs,* 21(Suppl 1):S20-S29.

Roy, E., Robert, M., E Vaillancourt, E., Boivin, J-F., Vandermeerschen, G. and Martin, I. 2011. Residential Trajectory and HIV High-Risk behaviors among Montreal Street Youth - A Reciprocal Relationship. *Journal of Urban Health: Bulletin of the New York Academy of Medicine,* 88(4):767-778.

Rumptz, M.H., Tobias, C., Rajabium, S., Bradford, J.B., Cabral, H.J., Young, R. and Cunningham, W. 2007. Factors associated with engaging socially marginalized HIV-positive persons in primary care. *AIDS Patient Care and STDs,* 21(Suppl 1):S30-S39.

Sale, J.E.M., Lohfeld, L.H. and Brazil, K. 2002. Revisting the Quantitative-Qualitative Debate: Implications for Mixed Methods Research. *Quality and Quantity,* 36(1):43-53.

Savage, J. 2009. *Models of access and clinical service delivery for people with HIV used in Australia. Background paper for the Models of Access and Clinical Service Delivery Project.* Sydney: Australasian Society for HIV Medicine.

Shepard, B. 2007. Harm Reduction Outreach Services and Engagement of Chemically Dependent Homeless people Living with HIV/AIDS: An Analysis of Service Utilization Data to Evaluate program Theory. *The Einstein Journal of Biology and Medicine,* 23:26-32.

Sohler, N.L., Xuan Li, M.S. and Cunningham, C.O. 2009. Gender Disparities in HIV Health Care Utilization among the Severely Disadvantaged: Can We Determine the Reasons? *AIDS Patient Care and STDs,* 23(9):775-783.

Stein, J, Nyamathi, A.M. and Zane, J.I. 2009. Situational, Psychosocial, and Physical Health-Related Correlates of HIV/AIDS Risk Behaviours in Homeless Men. *American Journal of Men's Health,* 3(25):25-35.

The Haymarket Foundation Inc. 2011. Annual Report 2010-2011. Sydney: The Haymarket Foundation Inc.

The Kirby Institute. 2014. *HIV in Australia: Annual Surveillance Report Supplement.* Sydney: UNSW.

The Kirby Institute. 2015. *HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report.* The Kirby Institute, UNSW Australia, Sydney NSW. Sydney: UNSW.

Thompson, M.A., Mugavero, M.J., Rivet Amico, K., Cargill, V.A., Chang, L.W., Gross, R., Orrell, C., Altice, F.L., Bangsberg, D.R., Bartlett, J.G., Beckwith, C.G., Dowshen, N., Gordon, C.M., Horn, T., Kumar, P., Scott, J.D., Stirratt, M.J., Remien, R.H., Simoni, J.M. and Nachega, J.B. 2012. Guidelines for Improving Entry into and Retention in Care and Antiretroviral Adherence for Persons With HIV: Evidence-based Recommendations from an International Association of Physicians in AIDS Care Panel. *Annals of Internal Medicine,* 156(11):817-833.

Tommasello, A.C., Gillis, L.M., Lawler, J.T. and Bujak, G.J. 2006. Characteristics of homeless HIV-positive outreach responders in urban US and their success in primary care treatment. *AIDS Care,* 18(8):911-917.

Victorian Department of Human Services. 2002. *Victorian HIV/AIDS Strategy 2002-2004 and addendum 2005-2009.* Rural and Regional Health and Aged Care Services Division. Melbourne: Victorian Department of Human Services,.

Wakeman, S.E., Zaller, N.D., Flanigan, T.P., Pinkston, M., Montague, B.T. and Rich, J.D. 2009. HIV Among Marginalized Populations in Rhode Island. *Medicine and Health, Rhode Island* 92(7):244-246.

Willis, J.W. 2007. World Views, Paradigms, and the Practice of Social Science Research. In Foundations of Qualitative Research: Interpretive and Critical Approaches, 1-26. Thousand Oaks, California: Sage Publications Inc.

Nurse empathy and the care of people with dementia

AUTHORS

Robin Digby
RN, MN, PhD candidate
Monash University, School of Nursing and Midwifery, Peninsula Campus, PO Box 527,Frankston, Victoria, Australia
rdig1@student.monash.edu

Associate Professor Allison Williams
RN PhD M Nurs BAppSci (AdvNurs) GradDipAdvNurs (ClinNursEd) FACN
Director, Monash Nursing Academy, Room 323, 35 Rainforest Walk,Clayton Campus, Wellington Rd, Clayton, Victoria, Australia
allison.williams@monash.edu

Dr Susan Lee
PhD, MBioeth, BAppSci (Nsg Ed), DipAppSc (Nsg),RN
Senior Lecturer, Monash University, School of Nursing and Midwifery, Peninsula Campus, PO Box 527, Frankston, Victoria, Australia
susan.lee@monash.edu

KEY WORDS

Dementia, empathy, nursing care, compassion, in-patient, hospital

ABSTRACT

Objective
Empathy is widely accepted as an essential nursing attribute yet the relationship between nurse empathy and the care of people with dementia in the hospital setting has rarely been explored. A number of themes have emerged from the relevant literature regarding the influences which shape a nurse's ability to deliver empathetic care to this patient cohort. These issues include a lack of hospital resources, an organisational focus on operational issues such as patient flow and risk management, and widespread stigmatisation of dementia in society.

Setting
Acute and sub-acute facilities.

Subjects
In-patients with dementia and nurses

Primary argument
Although there is widespread acknowledgment that nurses require empathy to deliver quality care, the complexity of caring for people with dementia in hospital creates further challenges for both nurses and patients. This issue has been discussed previously but there is little evidence that the situation has improved.

Conclusion
This paper details the relevant influences on the ability of nurses to care empathetically for people with dementia in hospital. The recognition that there are distinct factors related to this patient cohort is an important one and may assist nurses and health organisations to identify systemic and individual problems associated with hospitalisation and lead to the implementation of supportive strategies. Appropriate nurse-patient ratios which consider the additional workload attached to caring for people with dementia, clinical supervision and targeted nurse education must be considered to ensure health systems deliver appropriate person-centred care to people with dementia.

INTRODUCTION

A sign of our ageing population is the increased prevalence of dementia (Access Economics 2009). Dementia is defined by the World Health Organization (WHO) as, '…a syndrome due to disease of the brain – usually of a chronic or progressive nature – in which there is a disturbance of multiple higher cortical functions, including memory, thinking, orientation, comprehension, calculation, learning capacity, language, and judgement' (WHO 2012, p7). It is projected that globally the number of people with dementia will nearly double every 20 years to 65.7 million in 2030 and 155.4 million in 2050 (WHO 2012). Despite extensive research, there is currently no cure for dementia and no effective prevention strategy (van Norden et al 2012), making quality nursing care an important component of treatment.

It is not possible for nurses to care appropriately for patients without the vital ingredient of empathy. One description of empathy is "understanding, sharing and creating an internal space to accept the other person, hence helping them to feel understood and not alone" (Cunico et al 2012, p2016). Empathy has been described as a necessary component of all caring relationships (Mercer and Reynolds 2002). If empathy is lacking, nurses are unable to understand the patient's perspective, create trust, and deliver person-centred care (Griffiths et al 2012). May (1990) questioned if it was realistic to expect nurses to be empathetic considering the increasing demands placed on the role. More than 20 years later factors which facilitate nurses to deliver high quality, compassionate inpatient care continue to be debated (Bridges et al 2013).

Patients with dementia are commonly admitted to hospital with acute illnesses and dementia is a co-morbidity to the presenting problem (Hermann et al 2015). Despite many articles being written about the concept of empathy, many that refer to people with dementia are contextually in residential care. People with dementia are more than twice as likely to be admitted to Australian hospitals as those without (AIHW 2013), however there has been very little written about the relationships between staff and inpatients with dementia. The argument presented in this paper is that there are multiple factors which shape nurses' ability to deliver empathetic care to patients with dementia, in particular the work environment, organisational support, economic issues and societal influences. These factors must be addressed in relation to the care of people with dementia. The aim of this discussion paper is to examine nurse empathy in the context of caring for people with dementia in hospitals and suggest strategies for overcoming the barriers to the delivery of empathetic nursing care to this patient group.

DISCUSSION

The concept of empathy

The concept of empathy has been difficult to define but is generally understood to mean that an environment is created in which a person feels understood and accepted, by the demonstration of kindness and warmth (Griffiths et al 2012). An expanded explanation is that empathy involves 'understanding, sharing and creating an internal space to accept the other person, hence helping them to feel understood and not alone' (Cunico et al 2012, p2,016). Compassionate care is then a result of having empathy for another person and responding to their needs with humanity, relieving pain and distress: in other words, compassion implies that we not only understand a person's suffering but that we respond to it (Straughair 2012). To empathise with a person with dementia therefore involves gaining insight into a fragmented and confused world which may be changing, unpredictable and sometimes frightening (Cunningham 2006).

It has been suggested that nurses should work with empathy and compassion but retain a degree of detachment in order to allow the nurse's concern for the patient to be evident but maintain an emotional separateness (Edberg and Edfors 2008). This is to protect the nurse from losing objectivity and may decrease the likelihood of burnout (Maslach et al 2001). It is important to recognise that caring empathetically can render the nurse emotionally vulnerable, and consequently the benefit to the patient is not without cost, therefore to be most effective nurses must find an appropriate balance between engagement and detachment (Austin 2011).

Factors influencing empathy with people with dementia in hospital

The specific issues of people with dementia and the relationship with nurses in the hospital setting has received very little attention. Previous research has focussed mainly on residential care facilities where it is estimated that in Australia approximately 50% of the residents have dementia (AIHW 2012) with similar figures in other developed countries (Wimo and Prince 2010). The hospital environment can be noisy, busy and unfamiliar which may exacerbate the person with dementia's problems with spatial disorientation which can worsen anxiety and make care more challenging (Marquardt 2011). People with dementia may have attributes which make connection with other people more difficult because their ability to communicate and understand the needs of others can be impaired (Moreau et al 2015). This may impact on the nurse/patient relationship which is already strained because of time constraints, lack of understanding about dementia and inappropriate ward environment (Turner et al 2015).

Stigmatisation

There is evidence that both old age and dementia are conditions that are stigmatised by society, often in subtle and unacknowledged ways (Phillipson et al 2012). Stigmatisation of people with dementia by nurses and other health care providers, can be apparent although it is less prevalent in those with more education and hence a greater understanding of the condition (Mukadam and Livingston 2012). Despite this, educated health professionals can also demonstrate prejudice against people with mental health conditions including dementia (Blay and Peluso 2010). Judging and labelling patients can perpetuate stigma about people which influence the nurses' attitude towards patients and consequently their care (Scodellaro and Pin 2013). Demonstrations of stigmatisation of people with dementia include insinuating that the behavioural symptoms of dementia are deliberate and in the control of the person rather than a symptom of the condition or a demonstration of unmet need (Mukadam and Livingston 2012). For instance a person with dementia who is shouting 'Brian, Brian!' constantly may be interpreted by a nurse with poor insight into the condition as being wilful and irritating, whereas the person may in fact have a physical need such as thirst or pain which they are unable to express in a conventional way. The media must take responsibility for some of the negative projections of dementia in society including the emphasis on decline and the loss of capacity, and the burden on the community and families, despite the fact that many families actually feel satisfied in their caring role (Van Gorp 2012). The prevalence of these negative attitudes permeates all levels of society, influencing the ability of health professionals to see people with dementia as worthy of person-centred empathetic care (Milne 2010).

Nurse stress

Frustration and emotional exhaustion are common among nurses caring for people with dementia (Griffiths et al 2014). Because of the fast pace in hospital settings the problem is augmented by the complex needs of the patients with dementia and the limitations on what nurses can achieve during a working day (Fukuda et al 2015). Nurses need to be cared for and supported from an organisational perspective to empower them to care sensitively for their patients (Maben et al 2012b). Disharmony can be evident when the hospital environment is at odds with the requirements needed to care for people with dementia sensitively (Sánchez et al 2013). Flawed organisational priorities can also be blamed for the frustration and 'workplace suffering' generated by the gap between what nurses are able to do in terms of care and treatment and what they feel they should do (Biquand and Zittel 2012). Nurses may be distressed by the recognition of the needs of the person with dementia while faced with organizational constraints which prevent them from delivering appropriate care (Bridges et al 2013). A higher level of stress in nurses is closely linked with their self-efficacy and well-being which in turn impacts on their ability to care empathetically (Austin 2012).

In some cases nurses who have been the victims of violent behaviour from patients can show a high incidence of depersonalisation, burnout and psychological stress which reduces their capacity to deliver empathetic care (Scott et al 2011). Furthermore, a correlation has been demonstrated between nurse working characteristics and patient behavioural symptoms: people with dementia who are cared for by nurses who experience a lower degree of job strain show a lower incidence of disruptive behaviours (Edvardsson et al 2008).

Nurses can experience increased stress levels if patients are aggressive (Scott et al 2011). This aggressive behaviour can make the process of caring effectively even more difficult, however if the nurse is able to see that the patient is not responsible for their behaviour and can contextualise it in terms of the illness, they are less likely to be personally affected and more likely to continue the delivery of appropriate care (Ostaszkiewicz et al 2015). Nurses' Emotional Intelligence (EI) which is a measure of their emotional, personal and social abilities and skills is relevant to their capacity to care for their patients with empathy and compassion. Nurses who have a higher EI score have the propensity to be more empathetic especially when this quality is developed through education and support (Austin 2012).

Furthermore, nurses' stress has been shown to negatively impact on the behaviour of people with dementia (Edvardsson et al 2012), and lead to high staff turnover (Chenoweth et al 2014). It is not uncommon to find that patients with dementia are cared for by overworked staff who do not believe that the patients have the capacity to engage in personal interactions, and who consequently focus on the physical tasks (Blagg and Petty 2015). Protests from the patients are then seen as a symptom of the disease rather than being due to inappropriate treatment (Sabat et al 2011). This unsatisfactory relationship between staff and patient behaviour was termed 'malignant social psychology' (Kitwood 1997, p.45) and is demonstrated by staff who see people with dementia as 'personless' and unworthy of engagement (Penrod et al 2007). Nurses may demonstrate this by treating the person with dementia with dehumanising attitudes such as objectification, disempowerment and stigmatisation (Kitwood 1997). Carers of people with dementia who consider them to be valueless or empty consequently see their work as worthless and futile, which impacts on their ability to empathise with people (Chenoweth et al 2014). Nurses who feel disempowered are similarly unable to relate meaningfully to the patients and instead focus on the technical aspects of care (Terrizzi DeFrino 2009). It is important to note that nurses who are more empathetic and therefore have the ability to understand the person's feelings have greater job satisfaction (Lim et al 2011).

Resources and operational priorities

The nurses' ability to deliver ethical care can be constrained by the diminishing healthcare resources and tight fiscal restraint (Sanchez et al 2015). Nurses can feel that they are treated as a commodity rather than contributing team members in a culture which underplays the role of the nurse and engaged humanistic care (Austin 2011). Quality of care is directly linked to nurse-patient ratios, staff support and staff turnover, with comforting and talking to patients the tasks most often left undone when workload and other pressures increase (Duffield et al 2011). However it has been demonstrated that consistency of staff over a period of time can allow the connection between the staff and the person with dementia to develop and the relational aspects of care are then prioritised above the completion of tasks (Clissett et al 2013). The pressure to increase the flow of patients through the hospital system decreases the opportunities for nurses to develop a connection with patients which interferes with the therapeutic nurse/ patient relationship (Goodrich 2012). Significantly these time pressures can also lead to an increase in medical errors and ineffective care delivery (McSherry et al 2012).

The effect of technology

There has been speculation that empathy in nurses has declined with a rise in the technological and biomedical approach to care due to the decreased focus on the human perspective (Watson 2009). The relationship between the nurse and the patient is changed with the dependence on technology, and it is increasingly difficult (but still possible) to prioritise the human factor in the relationship (Buckner and Gregory 2011). Both the increasing demands of technology and the rise of consumerism put pressure on nurses to practice nursing in other non-traditional ways (Schantz 2007) and the 'softer' nursing qualities such as empathy and listening have also been described as at odds with 'academic' nursing related to technology and biomedical aspects of care (Griffiths et al 2012). It is important that empathetic care is not gradually eroded over time as the nursing culture becomes more technology dependent.

Risk management and relational practices

According to Austin (2011) relational practices of nurses have deteriorated not only in response to excessive workload but to the change in culture of nursing as a 'caring profession' to one of a customer/ service-provider model. The focus on customer satisfaction which stems from commercialism reframes the definition of nursing, and scripts nurses to respond to patient needs in ways which satisfy the model often to the detriment of sincerity (Austin 2011). As concepts such as empathy and compassion are difficult to measure (Yu and Kirk 2009) nurses spend their time 'ticking boxes' rather than listening to and comforting the patients (Bradshaw 2009).

Health services across the world, including Australia, have experienced rapid change in the past 50 years however in the light of these changes the essence of nursing has evolved from one in which the first premise is caring, to a new paradigm which has a focus on risk mitigation, accountability and patient flow (Roch et al 2014). There is a danger that the traditional nursing values which heavily emphasised empathetic care and patient comfort are being superseded in a society which values efficiency.

Strategies to improve empathetic care

The two major factors needed to improve empathetic care for people with dementia involve education and support for nurses and other staff (Cunico et al 2012). On-going education about dementia is essential for nurses who care for people with dementia so that they have the knowledge and the required strategies to care effectively for people with dementia in hospitals (Nayton et al 2014). Without a good understanding of the dementia condition, nurses are compromised in their ability to recognise the behaviour and respond to the patients appropriately (Chenoweth et al 2014). Appropriate on-going education improves care but also has a positive impact on nurse retention and improves nurses' job satisfaction as they not only become more masterful in the role but feel valued and supported by their organisation (Chenoweth et al 2014). Furthermore it is important to ensure that the nurses feel well supported by managers and their colleagues when they are caring for those who have concurrent acute medical illnesses as well as dementia, as this creates additional challenges (Clissett et al 2013). Appropriate education can include improving communication between nurses and patients, especially in the case of patients with dementia where communication can be difficult. Empathy must not only be felt by the nurse, but communicated to the patient or it loses its meaning (Webster 2010). It has been shown that nurses can be taught to develop their rapport with patients (Dewar 2011). However some believe that empathy is an innate quality which cannot be learned, although it can be recognised and encouraged (Richardson et al 2015). Nurses who are taught to be more aware of how their own beliefs and values influence their relationship with patients are more likely to change their attitudes positively (Harper and Jones-Schenk 2012). It is recommended that 'relational practices' warrant a higher place on the educational and competency agendas in order to support nurses to deliver appropriate compassionate care (Dewar and Nolan 2013).

Support for nurses

The need for emotional and practical support is particularly evident in nurses who care for people with dementia. Nurses have been shown to benefit considerably from clinical supervision in which individuals are given the opportunity to meet regularly with more senior or experienced practitioners in order to receive relationship-based support and guidance, and engage in reflective practice (Pearce et al 2013). Nurses who are provided with regular opportunities to discuss their workplace challenges have greater job satisfaction and a lower incidence of burn-out (Kemp and Baker 2013).

Actions which express the concern and support of managers for the nurses is very important in that it shows that there is a team approach to care and the difficulties are acknowledged (Moyle et al 2011). The understanding of the word 'team' can be extended to the whole of the organisation and health system as demonstrated in a study of the United Kingdom National Health Service performance which revealed '…cultures of engagement, positivity, caring, compassion and respect for all – staff, patients and the public – provide the ideal environment within which to care of the health of the nation' (West and Dawson 2012). Nurses who feel they are not alone in the challenges they face (Maben et al 2012a) and who feel valued and supported by the organisation will derive greater satisfaction from their work (Chenoweth et al 2014).

CONCLUSION

Dementia adds complexity to the nurse-patient relationship in hospital and requires specialised understanding in order to enable quality care to be delivered. In this paper empathy has been discussed in relation to the barriers and enablers to caring empathetically for people with dementia in hospital from a nursing perspective.

The barriers are multi-factorial but include society's stigmatisation of people with mental health problems which permeates into the health arena and cause nurses to unwittingly discriminate against people with dementia. The increasing pressure from fiscal restraint, increased patient flow-through and technology experienced by nurses impact on their ability to relate effectively to the people in their care. Lack of time and resources to support nurses leads to dissatisfaction with the role; a problem which is ultimately reflected in the quality of care delivered to the patients.

RECOMMENDATIONS

Health services will continue to care for a greater number of patients with dementia as the population ages. Traditional nursing values which include empathy must be supported despite the challenges of the modern healthcare environment. Nurse empathy has been demonstrated to be a vital ingredient in the provision of quality care for people with dementia in hospital. In order to improve this situation, nurses require organisational backing which includes an understanding of the increased needs of people with dementia reflected in nurse-patient ratios. Organisational initiatives including ensuring there are opportunities for clinical supervision must be implemented and sustained if nurses are to receive the support they need. Targeted education about dementia would increase nurses' understanding of the condition and enable a more objective appreciation of patient behaviour, allowing nurses to maintain an empathetic approach in the face of challenging behaviour. Improving the support for nurses will advance the care of patients with dementia in hospital.

REFERENCES

Access Economics. 2009. Keeping Dementia Front of Mind: Incidence and Prevalence 2009-2050. Canberra: Access Economics.

AIHW. 2012. *Dementia in Australia. Edited by Australian Institute of Health and Welfare. Canberra: AIHW.*

AIHW. 2013. Dementia care in Hospitals: Costs and Strategies. edited by AIHW. Canberra.

Austin, W. 2011. The incommensurability of nursing as a practice and the customer service model: An evolutionary threat to the discipline. *Nursing Philosophy*, 12(3):158-166.

Austin, W. 2012. Moral distress and the contemporary plight of health professionals. *HEC Forum,* 24 (1):27-38.

Biquand, S. and Zittel, B. 2012. Care giving and nursing, work coniditions and humanitude. IOS Press:1828-1831.

Blagg, R. and Petty, S. 2015. Sustainable staff well-being within older mental health. *Mental Health Review Journal,* 20(2):92-104.

Blay, S.L. and Peluso, E. 2010. Public stigma: The community's tolerance of Alzheimer Disease. *The American Journal of Geriatric Psychiatry,* 18(2):163-171.

Bradshaw, A. 2009. Measuring nursing care and compassion: The McDonaldised nurse? *Journal of Medical Ethics,* 35(8):465-468.

Bridges, J., Nicholson, C., Maben, J., Pope, C., Flatley, M., Wilkinson, C., Meyer, J. and Tziggili, M. 2013. Capacity for care: Meta-ethnography of acute care nurses' experiences of the nurse-patient relationship. *Journal of Advanced Nursing*, 69(4):760-772.

Buckner, M. and Gregory, D. 2011. Point of care technology: Preserving the caring environment. *Critical Care Nursing Quarterly,* 34(4):297-305.

Chenoweth, L., Merlyn, T., Jeon, Y.H.,Tait, F. and Duffield, C.2014. Attracting and retaining qualified nurses in aged and dementia care: Outcomes from an Australian study. Journal of Nursing Management, 22(2):234-247.

Clissett, P., Porock, D., Harwood, R. and Gladman, J. 2013. The challenges of achieving person-centred care in acute hospitals: A qualitative study of people with dementia and their families. *International Journal of Nursing Studies,* 50(1):1495-1503.

Cunico, L , Sartori,R., Marognolli, O. and Meneghini, A. 2012. Developing empathy in nursing students: A cohort longitudinal study. *Journal of Clinical Nursing, 21(13-14):2016-2025.*

Cunningham, A. 2006. Supporting people with dementia in acute hospital settings. *Nursing Standard*, 20(43):51-55.

Dewar, B. 2011. Valuing compassion through definition and measurement. *Nursing Management,* 17(9):32-37.

Dewar, B., and Nolan, M. 2013. Caring about caring: Developing a model to implement compassionate relationship centred care in an older people care setting. *International Journal of Nursing Studies*, 50(9):1247-1258

Duffield, C., Diers, D., O'Brien-Pallas, L., Aisbett, C., Roche, M., King, M. and Aisbett, K. 2011. Nursing staffing, nursing workload, the work environment and patient outcomes. *Applied Nursing Research*, 24(4):244-255

Edberg, A. K., and Edfors, E. 2008. Nursing care for people with frontal-lobe dementia - difficulties and possibilities. *International Psychogeriatrics* 20 (2):361-74.

Edvardsson, D., Sandman, P.O., Nay, R. and Karlsson, S. 2008. Associations between the working characteristics of nursing staff and the prevalence of behavioral symptoms in people with dementia in residential care. *International Psychogeriatrics,* 20(4):764-776.

Edvardsson, D., Sandman,P.O. and Rasmussen, B. 2012. Forecasting the ward climate: A study from a dementia care unit. *Journal of Clinical Nursing,* 21(7-8):1136-1114.

Fukuda, R., Shimizu, Y. and Seto, N. 2015. Issues experienced while administering care to patients with dementia in acute care hospitals: A study based on focus group interviews.*International Journal of Qualitative Studies on Health and Well-Being,* 10.

Goodrich, J. 2012. The contribution of Schwartz Centre Rounds to hospital culture. 8th International Organisational Behaviour in Healthcare Conference, Dublin.

Griffiths, A., Knight, A., Harwood, R. and Gladman, J.R.F. 2014. Preparation to care for confused older patients in general hospitals: a study of UK health professionals. *Age and Ageing,* 43(4):521-527.

Griffiths, J, Speed,S., Horne, M. and Keeley, P. 2012. 'A caring professional attitude': What service users and carers seek in graduate nurses and the challenge for educators. *Nurse Education Today,* 32(2):121-127.

Harper, M.G. and Jones-Schenk, J. 2012. The emotional intelligence profile of successful staff nurses. *The Journal of Continuing Education in Nursing,* 43(8):354-362.

Hermann, D.M., Muck, S. and Nehen, H.G. 2015. Supporting dementia patients in hospital environments: health-related risks, needs and dedicated structures for patient care. *European Journal of Neurology,* 22(2):239-245.

Kemp, S.J. and Baker, M. 2013. Continuing Professional Development – Reflections from nursing and education. *Nurse Education in Practice*, 13(6):541-545.

Kitwood, T. 1997. Dementia Reconsidered: The Person Comes First. Buckingham: Open University Press.

Lim, B.T., Moriarty, H. and Huthwaite, M. 2011. "Being-in-role": A teaching innovation to enhance empathic communication skills in medical students. *Medical Teacher,* 33(12):e663-e669.

Maben, J., Adams, M., Peccei, R., Murrells, T. and Robert, G. 2012a. 'Poppets and parcels': The links between staff experience of work and acutely ill older peoples' experience of hospital care. *International Journal of Older People Nursing,* 7(2):83-94.

Maben, J, Peccei, R., Adams, M., Robert, G., Richardson, A., Murrells, T. and Morrow, E. 2012b. Exploring the relationship between patients' experiences of care and the influence of staff motivation, affect and well-being. In Final Report. London: NIHR Service Delivery and Organisation programme.

Marquardt, G. 2011. Wayfinding for people with dementia: The role of architectural design. *Health Environments Research & Design Journal*, 4(2):22-41.

Maslach, C., Schaufeli, W. B. and Leiter, M. P. 2001. Job Burnout. Annual Review of Psychology 52(1):397-422.

May, C. 1990. Research on nurse-patient relationships: Problems of theory, problems of practice. *Journal of Advanced Nursing,* 15(3):307-315.

McSherry, R., Pearce,P., Grimwood, K. and McSherry, W. 2012. The pivotal role of nurse managers, leaders and educators in enabling excellence in nursing care. *Journal of Nursing Management,* 20(1):7-19.

Mercer, S.W. and Reynolds, W.J. 2002. Empathy and quality of care. *British Journal of General Practice,* 52(Supplement 1):9-12.

Milne, A. 2010. The 'D' word: Reflections on the relationship between stigma, discrimination and dementia. *Journal of Mental Health,* 19(3):227-233.

Moreau, N., Rauzy, S., Viallet, F. and Champagne-Lavau, M . 2015. Theory of mind in Alzheimer disease: evidence of authentic impairment during social interaction. *Neuropsychology,* 30(3):312-321.

Moyle, W., Borbasi, S., Wallis, M., Olorenshaw, R. and Gracia, N. 2011. Acute care management of older people with dementia: A qualitative perspective. *Journal of Clinical Nursing,* 20 (3-4):420-428.

Mukadam, N., and Livingston, G. 2012. Reducing the stigma associated with dementia: Approaches and goals. *Aging Health,* 8(4):377-386.

Nayton, K., Fielding, E., Brooks, D., Graham, F. and Beattie, E. 2014. Development of an Education program to improve care of patients with dementia in an acute care setting. *The Journal of Continuing Education in Nursing,* 45(12):552-558.

Ostaszkiewicz, J., Lakhan, P., O'Connell, B. and Hawkins, M. 2015. Ongoing challenges responding to behavioural and psychological symptoms of dementia. *International Nursing Review*, 62(4):506-516.

Pearce, P., Phillips, B., Dawson, M. and Leggat, S. 2013. Content of clinical supervision sessions for nurses and allied health professionals: A systematic review. *Clinical Governance,* 18(2):139-154.

Penrod, J., Yu,F., Kolanowski, A., Fick,D., Loeb., S. J. and Hupcey, J.E. 2007. Reframing person-centered nursing care for persons with dementia. *Research and Theory for Nursing Practice,* 21(1):57-72.

Phillipson, L., Magee, C.A., Jones, S.C. and Skladzien, E. 2012. Correlates of dementia attitudes in a sample of middle-aged Australian adults. *Australasian Journal on Ageing,* 33(3):158-163.

Richardson, C., Percy, M. and Hughes, J. 2015. Nursing therapeutics: Teaching student nurses care, compassion and empathy. *Nurse Education Today,* 35 (5):e1-e5.

Roch, G., Dubois, C-A. and Clarke, S. P. 2014. Organizational climate and hospital nurses' caring practices: A mixed-methods study. *Research in Nursing & Health ,*37(3):229-240.

Sabat, S.R., Johnson, A., Swarbrick, C. and Keady, J. 2011. The 'demented other' or simply 'a person'? Extending the philosophical discourse of Naue and Kroll through the situated self. *Nursing Philosophy,* 12(4):282-292.

Sánchez, A., Millán-Calenti, J.C., Lorenzo-López, L. and Maseda, A. 2013. Multisensory stimulation for people with dementia: A review of the literature. *American Journal of Alzheimer's Disease and Other Dementias*, 28(1):7-14.

Sanchez, S., Mahmoudi,R., Moronne, I., Camonin, D. and Novella, J.L. 2015. Burnout in the field of geriatric medicine: Review of the literature. *European Geriatric Medicine,* 6(2):175-183.

Schantz, M. L. 2007. Compassion: A concept analysis. *Nursing Forum,* 42(2):48-55.

Scodellaro, C. and Pin, S. 2013. The ambiguous relationships between aging and Alzheimer's disease: A critical literature review. *Dementia*, 12(1):137-151.

Scott, A., Ryan, A., James, I. and Mitchell, E. 2011. Psychological trauma and fear for personal safety as a result of behaviours that challenge in dementia: The experiences of healthcare workers. *Dementia*, 10(2):257-269.

Straughair, C. 2012. Exploring compassion: Implications for contemporary nursing. *British Journal of Nursing,* 21(4):239-244.

Terrizzi DeFrino, D. 2009. A theory of the relational work of nurses. *Research and Theory for Nursing Practice*, 23(4):294-311.

Turner, A., Eccles, F.J.R., Elvish, R., Simpson, J.and Keady, J. 2015. The experience of caring for patients with dementia within a general hospital setting: a meta-synthesis of the qualitative literature. Aging & Mental Health. DOI: 10.1080/13607863.2015.1109057

Van Gorp, B. 2012. Frames and counter-frames giving meaning to dementia: A framing analysis of media content. *Social Science & Medicine,* 74(8):1274-1281.

van Norden, A.G.W., van Dijk, E.J., de Laat, K.F., Scheltens, P., OldeRikkert, M.G.M. and de Leeuw, F.E. 2012. Dementia: Alzheimer pathology and vascular factors: From mutually exclusive to interaction.Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease, 1822(3):340-349.

Watson, J. 2009. Caring science and human caring theory: Transforming personal and professional practices of nursing and healthcare. *Journal of Health and Human Sevices Administration,* (Spring) 31(4):466-482.

Webster, D. 2010. Promoting empathy through a creative reflective teaching strategy: A mixed-method study. *Journal of Nursing Education,* 49(2):87-94.

West, M.A. and Dawson, J.F. 2012. Employee engagement and NHS performance. London: The King's Fund.

WHO. 2012. Dementia A Public Health Priority. edited by Alzheimer's Disease International. Geneva, Switzerland: World Health Organization.

Wimo, A. and Prince, M. 2010. World Alzheimer Report 2010: The Global Impact of Dementia. London: Alzheimer's Disease International.

Yu, J. and Kirk, M. 2009. Evaluation of empathy measurement tools in nursing: Systematic review. *Journal of Advanced Nursing*, 65(9):1790-1806.

Doctoral education for nurses today: the PhD or professional doctorate?

AUTHORS

Kim Walker
RN, PhD, Professor of Healthcare Improvement,
St Vincent's Private Hospital & School of Health Sciences,
University of Tasmania; St Vincent's Hospital, 2A Oxford
Street, Paddington, NSW, Australia
Kim.Walker@svha.org.au

Steven Campbell
RN, PhD, Professor of Clinical Redesign,
School of Health Sciences, University of Tasmania,
Locked Bag 1322, Launceston, Tasmania, Australia
Steve.campbell@utas.edu.au

Jed Duff
RN, PhD, Senior Research Fellow,
St Vincent's Private Hospital & School of Health
Sciences, University of Tasmania; St Vincent's Hospital,
2A Oxford Street, Paddington, NSW, Australia
Jed.Duff@utas.edu.au

Elizabeth Cummings
RN, PhD, Associate Professor,
Graduate Research Coordinator, School of Health
Sciences, Domain Campus, 71 Brooker Highway,
Hobart, Tasmania, Australia
Liz.Cummings@utas.edu.au

KEY WORDS

doctoral education, research, professional development, nurses, healthcare improvement

ABSTRACT

Objective
This paper seeks to stimulate discussion and debate about the future of doctoral education for nurses in Australia.

Setting
A large Magnet recognised acute care private hospital in New South Wales and a large regional university in Australia.

Primary argument
Healthcare today and into the future is increasingly more complex and requires ever more highly skilled healthcare professionals to meet the challenges of providing safe, quality care. Doctoral research and education based in the workplace and designed to improve healthcare while skilling up nurses and other professionals in research methods has never been more relevant and appropriate.

Conclusion
Nurses have generally not seen the PhD as the best fit for their higher professional development. The professional doctorate offers a compelling and dynamic alternative to the more academic focus of the PhD and prepares 'inquiry-driven leaders' for tomorrow's challenges.

INTRODUCTION

> *In the context of delegitimation [of the metanarratives of modernity], universities and the institutions of higher learning are called upon to create skills, and no longer ideals. The transmission of knowledge is no longer designed to train an elite capable of guiding the nation towards emancipation, but to supply the system with players capable of fulfilling their roles at the pragmatic posts required by its institutions (Lyotard 1987).*

In Australia today nurses confront an ever-increasing complexity of the healthcare services in which they work (Jacob et al 2015). This complexity is driven by a number of intersecting issues such as:

- an ageing population with rising demands and expectations of the healthcare they receive (Dall et al 2013);
- an equally ageing workface with different desires and needs in terms of the ways they will be able and want to work (Heidemeier and Staudinger 2015);
- a more sophisticated workforce especially in respect of the younger generations of health professionals who will not necessarily live out their work life in the one organisation (Wood 1999);
- rapidly rising awareness that the funding and economic imperatives of constrained budgets but more expensive technologies and treatment modalities are destined to cripple the healthcare system in the not so distant future (Baal et al 2014); and
- a pressing need in light of this uncomfortable reality that new models of care, new and more effective and efficient delivery of services and new ways of thinking and doing healthcare work (Elf et al 2014);

are considerable pressures that must be dealt with. Of course it is the healthcare leaders of the future who will be tasked with addressing these issues and concerns and indeed, many of our current leadership are doing just that (Weberg 2012) as they realise that doing ‘more of the same’ is simply not good enough anymore (if it ever was).

It is because of the constant need to innovate and improve the quality and safety, as well as the effectiveness and efficiency of healthcare that we feel compelled to advance a case for a new paradigm in the ways in which we prepare our nurses for the looming challenges just outlined. While Australia is fortunate to have a generally well qualified and high functioning healthcare workforce it is imperative to ensure that they are as best equipped as they can be to take healthcare forward in the 21st century, something this paper focus’s on (WHO 2016).

Many nurses are prepared now at the graduate diploma and masters level and many medicos also seek post-graduate training through their speciality colleges or university programs, it is still relatively unusual to see more than only one or two doctorally prepared professionals in the healthcare services themselves (Morgan and Somera 2014). As all four authors of this paper are doctorally prepared nurses, we propose that the professional doctorate degree is an exemplary training program specifically designed to keep our best and brightest working in the healthcare workplace while also adding significant value to their portfolios of responsibility in respect of the application of their learning in these programs. In light of this claim, the authors launched, in 2014 a Doctor of Health program in Sydney as industry and higher education partners and already 14 senior, mid and late career nurses have enrolled and new cohorts in Hobart and Launceston, Tasmania, are due to commence in 2016. This strongly suggests the program is meeting an unmet need for this group of nurse managers, educators and clinicians. In what follows, the authors lay out a discussion about the relative merits (and challenges) of doctoral level education and research training for mid-career and senior nurses with a view to encouraging more discussion on this important debate. Importantly too, are the implications of the very recently released report on the future of higher degree by research training system in Australia compiled by the Australian Council of Learned Academies (McGagh et al 2016). Essentially, this document puts a strong case for the tertiary sector to collaborate much more strongly with industry to better prepare professionals from all spheres of work for the challenges of life in the 21st century. As stated in the report:

> *"Research training has the potential to drive closer and broader engagement between industry and the university research sector, and contribute to reversing Australia's unacceptable international performance in this area. Increased industry linkages during research training through placements with industry partners and undertaking industry-defined research projects, will drive the establishment of long-term relationships between industry and researchers. This will help overcome the cultural differences that stand in the way of increased collaboration (McGagh et al 2016)".*

As discussed in this manuscript, the professional doctorate in health is the exemplary vehicle for achieving such a goal for nursing specifically and healthcare, more generally.

DISCUSSION

Doctoral degrees: the emergence of the professional doctorate

Doctoral education has a long and distinguished history dating back to the 12th century at the universities of Paris and Bologna (Kot and Hendel 2012). The original orientation of the doctoral degree enabled a 'scholar to become a full participating member of the guild' and thus it had 'an explicit professional orientation' (Buchanan and Hérubel 1995). These days, of course, the PhD is seen as the proverbial 'gold standard' of research higher degrees, is marked by independent research training, and is expected to make 'an original contribution to knowledge' (Cleary et al 2011). It can be done via the traditional method of a major research project that is written up into a thesis or dissertation; conversely, and increasingly so, universities are also offering a PhD 'by publication' comprising a 'coherent compilation of referred and published research papers with an accompanying document to provide context for the work' (Cleary et al 2011).

The professional doctorate as distinguished from the PhD, however, has a rather less ancient and august provenance, dating back to the 1950s in the United States of America (USA) (Ellis 2005) although McVicar et al (2006) suggest they date as far back as the 1920s and in Canada even further back to a Doctorate in Education in 1894. In Australia and the United Kingdom (UK) programs only surfaced in the 1990s (Watson et al 2011) although Kot and Hendel (2012) note that the first Australian professional doctorate can be tracked back to 1984 when the University of Wollongong established the Doctor of Creative Arts.

Rolfe and Davies (2009) make two important points in respect of the development of the professional doctorate: 'Professional doctorates have arisen out of dissatisfaction with the traditional PhD which is perceived as too distant from practice; study at doctoral level is now increasingly relevant to those working outside academe'. Unfortunately however, as Kot and Hendel (2012) comment, 'unlike the PhD, the professional doctorate seems to have no standard definition'. Hessling (1986) describes the PhD, for example, as 'a traditional credential attribute of an individual awarded by an institute of higher education after successful defence of a dissertation, recording the candidate's independent and original contribution to knowledge'. The PhD then, is clearly and not problematically, the degree of choice for someone seeking a career in the academy or as a professional researcher.

Kot and Hendel (2012) note on the other hand, that the development of the professional doctorate in Australia 'is linked to factors [such as] employability of holders of doctoral degrees, criticisms of the PhD, the growth of the knowledge economy, the changing role of higher education and government involvement'. Importantly, they further comment on the significant expansion in professional doctorates since the mid-1990s with increases in psychology (267%), health (250%) and administration (200%). This expansion was due to not only the growth in programs but also the number of universities offering the Prof Doc and the numbers of students enrolled in them paralleled this growth. Importantly, for this study, in a report for the Australian Government Department of Education, Science and Training, the author noted that '[d]octoral education in Australia is currently under pressure to become more industry focussed and advocated that professional doctorates may be able to fulfil this role by developing and sustaining closer collaboration between universities and industry (Fink 2006). As noted above, it is timely then that in the ten years that has elapsed since this suggestion was advanced it has re-surfaced in the latest review of higher degree by research training (McGagh et al 2016).

Sadly however, as Pearson (1999) noted some 15 years ago, 'the continuing debate about the status of professional doctorates shows how the view of the traditional PhD is entrenched as primarily an individual student's research project … and how inherently conservative the response to change has been despite the extent of innovative initiatives'. Some antagonists of the professional doctorate have pointed to its perceived lack of scholarly rigour compared with the PhD (Maxwell 2011; Wellington and Sykes 2006). As Watson et al (2011) suggest 'it is hard to escape the view that the professional doctorate is viewed as being an easier route to doctorate in the UK.' Clearly then, some confusion persists around the relative merits of the two modes of doctoral education and training and the outcomes they produce in terms of a doctorate. This paper suggests that for healthcare professionals generally and nurses specifically wishing to stay in the healthcare setting, there is really no argument as to which qualification is best fit for purpose.

Doctoral education: from global to regional

In Europe in the 1990s, a process began in Bologna, Italy, to ensure consistency and compatibility in respect of standards and quality of higher educational qualifications across the European countries. In 2003 at a meeting of education ministers, it was decided to extend this process to a so-called third 'cycle': the doctoral qualification. Importantly, it was emphasised at this meeting that doctoral programs be viewed in the wider context of higher education and should be linked more explicitly to the two preceding cycles of the Bachelor and Master programs. Moreover, the character of doctoral programs should be modified, for example, by incorporating more taught courses and training elements, and also broadened, for example, by embracing practice-based PhDs and professional doctorates (Green and Powell 2005).

These shifts in thinking have of course, been informed by wider influences including, but not limited to: The emergence of a so-called 'knowledge society'; globalisation; and other social, economic and cultural transformations internationally. These influences have exerted a number of pressures for doctoral education to change and in the words of Scott (2006), 'the boundaries for doctoral education have become fuzzier – with master programs on the one hand and professional development and lifelong learning on the other, and even the highest levels of adult and continuing education … the whole higher education system, and also the research system, have been stretched and, at the same time, become more diffuse and permeable' (Scott 2006).

Such fuzziness and permeability at the boundaries of doctoral education suggest that there is an equally confounding blurring of what comprises doctoral education at all. If doctorate holders are to be able to respond to the imperatives and challenges of a globalised, information-saturated and ever more diverse socio-economic and political world then their doctorates need to reflect their fitness for purpose and not be compelled to conform to a 'one-size-fits-all' product as once might have been the case.

Turing our gaze more locally Neumann (2007) remarks that 'for the most part of Australian higher education, doctoral education has been peripheral'. Neumann further notes that policy has often been implicit rather than the obverse and more often than not merely a 'subordinate component of higher education funding, or incorporated in overall research policy in most major government reviews since the 1950s' (2007). The growth in students undertaking doctoral degrees (from 9,298 in 1990 to 37,685 in 2004) suggests that this has 'effectively led to the massification of doctoral education' (Pearson et al 1997). Consequently, government's response has been to focus on accountability and quality with a more formalised framework of rules and procedures for doctoral studies (e.g. the Australian Qualifications Framework), more regulation of supervisory practices and more overt structuring of the doctoral curriculum. That said it is increasingly recognised that what forms of scholarship as well as the theoretical and practical outcomes doctoral programs produce and what knowledges and skills doctorate holders embody, need to be adaptable to an ever-changing knowledge economy. As Pearson et al (1997) emphasise 'diversity in doctoral research practice is essential for a robust doctoral sector with the capacity to be flexible and productive in a volatile education market and a globally competitive research environment'.

Professional development via healthcare improvement

In healthcare, increasingly it is recognised that professional development (PD) is both a right and a responsibility; a right in that organisations are expected to provide PD opportunities to advance the skills and knowledge of its staff but also a responsibility, on the part of health professionals, to stay abreast of the trends and developments in their area of speciality. The professional doctorate enables staff to become what Bourner et al (2001) have called 'researching professionals' (as opposed to 'professional researchers') or similarly, Gregory's (1997) notion of 'scholarly professionals' (vis-à-vis 'professional scholars'). It does this by providing students with the same quality of supervision from a team of doctorally prepared scholars a PhD candidate would expect to receive and during which they learn the rigours of conducting a high-level research project and all the skills that are required to undertake such a challenge. These include, for example, selecting the appropriate methods for data collection, learning the skills of advanced analysis of data, the very important skills of writing for publication as well as writing up the end product of a thesis for examination.

As Ellis (2005) notes in her research 'the professional doctorate [in health] was introduced for the advancement and improvement of practice, indeed this being their 'hallmark''. In later research Ellis (2007) also reports that Prof Doc 'enthusiasts saw [them] as a *real* alternative to PhD that offered a program of study highly relevant to professional practice with the benefits of shared learning'. Moreover, in respect of the emphasis on improvements in practice noted above, in the conclusion to her paper she points out that '[the] application of knowledge to clinical practice is at the core of clinical or taught doctorates and explains why increasing numbers of clinicians are interested in pursuing this form of doctorate over the more traditional PhD'. While many nurses are qualified at the masters level, a doctorate takes their knowledge and skills to a much higher plane and it opens career opportunities now increasingly more sophisticated such as the academic embedded in the practice setting.

Exactly what is a professional doctorate then?

McVicar et al (2006) provide some useful defining criteria as follows:

- the research focus is 'the solution of problems in practice and the generation of new knowledge to inform improvements in practice (Galvin and Carr 2003). Importantly this criterion recognises 'practice as scholarship' (Ramcharan et al 2001; Newman 1997; Pearson et al 1997);
- it is interventionist in relationship to the topic being investigated; and
- it adopts an applied, problem-focused, or action-based approach to proposing or implementing change in the organisations in which the candidate is involved.

They further note that while these features could equally appear in a PhD the differentiation between the two is that 'the focus on addressing the needs of the candidate's own organisation is *the* critical factor' (McVicar et al 2006). Bourner et al (2001) further note that 'a student commences the research by an understanding of their practice, leading to an identification of an issue for investigation, and finishes by applying their learning in resolving the issue' (McVicar et al 2006).

McVicar et al (2006) also point out that 'although the professional doctorate commences from a different position to that of a PhD, the end-point in terms of the critical benchmarks observed in doctoral theses are comparable, including originality, depth of analysis and level of synthesis. Similarly, there is an expectation students will publish their findings'. Trafford and Lesham (2002a; 2002b) echo these sentiments by suggesting that while their design may differ, the PhD and professional doctorate 'should share similarities that characterise scholarship, enquiry and externally verified standards, and of course lead to an original contribution either by filling a gap in, or by extending, knowledge' (McVicar et al 2006). In conclusion to this section, the Australian Qualifications Framework (AQF 2011) defines the two dominant forms of the Australian doctorate as follows:

> *The research Doctoral degree (typically referred to as a PhD) makes a significant and original contribution to knowledge; the professional Doctoral Degree (typically titled Doctor of (field of study)) makes a significant and original contribution to knowledge in* ***the context of professional practice*** *(AQF 2011: emphasis added).*

Further epistemological considerations and refinements

Several commentators (Maxwell 2011; Rolfe and Davies 2009; Crasswell 2007; Wallgren and Dahlgren 2005) have advanced the work of Gibbons et al (1994) as a very helpful taxonomy of knowledge-production in distinguishing the epistemological contours that differentiate the PhD from the professional doctorate; in the interests of the pedagogy of doctoral education more broadly we think it is a useful heuristic to draw on.

This paper argues the 'traditional' PhD is more marked by Mode 1 knowledge-production than the professional doctorate, which conversely, derives its epistemological (as well as socio-political) capital from Mode 2 knowledge–production. As Rolfe and Davies (2009) explain Mode 1 knowledge production is 'driven by an academic agenda, categorised by the associated disciplines ... residing in the University, where they are guarded by an academic elite'). Furthermore, under this mode 'students are inducted into the disciplinary knowledge and practice of the University and to be successful they must align themselves to the theoretical and methodological frameworks which characterise these'. It is not hard to read from this set of distinctions that the PhD is a product of and for the University rather than any other place; this is reinforced by Maxwell and Kupczyck-Romanczuk (2009) who acknowledge that the 'focus of professional doctorate work is the community of practice, as opposed to the community of academics ... an important distinction'.

In contrast, suggest Rolfe and Davies (2009), Mode 2 knowledge-production is characterised by:

> *A constant flow back and forth between the fundamental and the applied, between the theoretical and the practical. Typically, discovery occurs in the contexts where knowledge is developed and put to use, while results – which would have been traditionally characterised as applied – fuel further theoretical advances.*

On the other hand, put a slightly different way by Nowotny et al (2005) in contrast with Wallgren and Dahlgren (2005):

- In Mode 1 problems are solved in a context governed by the largely academic interests of a specific community. By contrast, in Mode 2 knowledge is produced in the context of application.
- Mode 1 is disciplinary while Mode 2 is transdisciplinary.
- Mode 1 is characterised by relative homogeneity of skills while Mode 2 is characterised by heterogeneity of skills.

- In organisational terms, Mode 1 is hierarchical while in Mode 2 the preference is for flatter organisational structures.
- Mode 2 is more socially accountable and reflexive than Mode 1.

The AQF level 10 (Doctoral Degree) criteria (graduate attributes) specify:

Summary	Graduates at this level will have systematic and critical understanding of a complex field of learning and specialised research skills for the advancement of learning and/or professional practice
Knowledge	Graduates at this level will have systematic and critical understanding of a substantial and complex body of knowledge at the frontier of a discipline or area of professional practice
Skills	Graduates at this level will have expert, specialised cognitive, technical and research skills in a discipline area to independently and systematically: • Engage in critical reflection , synthesis and evaluation • Develop, adapt and implement research methodologies to extend and refine existing knowledge or professional practice • Disseminate and promote new insights to peers and the community • Generate original knowledge and understanding to make a substantial contribution to a discipline or area of professional practice
Application of knowledge and skills	Graduates at this level will apply knowledge and skills to demonstrate autonomy, authoritative judgement, adaptability and responsibility as an expert and leading practitioner or scholar

Who does a professional doctorate rather than a PhD?

It is important to note that the types of candidates for the two doctoral programs tend to vary both in kind and in degree (pun intended). The PhD as Fink (2006) has suggested, and ironically in light of the discussions herein, is a 'professional doctorate for academics'.

Typically, in many disciplines (less so in nursing and midwifery), candidates enter the PhD through a 'fast-track' route of three-year bachelor degree and straight on to a fourth year Bachelor with Hons degree and then straight in to PhD. This means many graduates have very little 'life experience' and are very knowledgeable about an often very narrow topic; science, engineering, arts and other more traditional university disciplines feature prominently in this type of PhD candidate and graduate. These processes as Fink (2006) asserts are 'linked to and driven by the university'.

Professional doctorate candidates on the other hand, usually possess a 'higher degree [such as a master in clinical nursing] that is not necessarily research-based, and importantly possess professional experience ... The candidate maintains links with the university as well as industry and works collaboratively with a group from industry' (Fink 2006: 37). Additionally, in contrast with other professions, these students have considerable professional and life experience that contributes to their doctorate experience, as well as the doctorate itself.

Neumann's (2005) student informants made it very clear that 'in nearly all cases students had deliberately elected to enrol in a professional doctorate, despite maintaining that they could have undertaken their research within a PhD program. The closer affinity, promoted in recruitment brochures, between research requirements and the profession was particularly appealing'.

Last words

Olson and Clark (2009) have written cogently about the concept of a 'signature pedagogy' in doctoral education and the creation of what they call a 'leader-scholar community'. Taking the term from Shulman (2005) 'signature pedagogy' describes 'the characteristic forms of teaching and learning ... that organise the fundamental ways in which future practitioners are educated for their new professions' (Olsen and Clark

2009). In respect of doctoral education then, signature pedagogies ‘are credited with socialising doctoral students into the discourse community of the profession, providing practice in articulating a summary and critique of research literature, helping faculty and students keep up with the latest literature and with active controversies in their fields, making connections around disciplinary boundaries and helping doctoral students discover and claim a topic and direction for their dissertation projects’ (Golde 2007).

CONCLUSION

The authors believe this paper demonstrates a clear disparity between the two main forms of doctoral education and research training for healthcare professionals generally, and nurses, specifically. While the very long history of the PhD has positioned it as the so-called ‘gold standard’, for education and training at the highest level, it is not necessarily the best suited to healthcare professionals and nurses who wish to remain in the healthcare workforce but elevates their repertoire of knowledge and skills to the same level as, say, a professor in a university setting.

The professional doctorate is a combination of rigorous coursework and a major piece of research. Together these activities have the express aim of producing what others, and the authors have called ‘researching professionals ’as opposed to professional researchers. The distinction is important insofar as it recognises the primary aim of the professional doctorate is to improve healthcare through the actions of the researchers undertaking their doctorate. A PhD can, but does not usually, have such an emphasis on the context *in situ* of healthcare and the systems and processes required to deliver that health care to the very highest standards possible. The professional doctorally prepared nurse, however, is able to do exactly that.

RECOMMENDATIONS

A robust and sustained discussion and debate should be conducted by our current healthcare leaders as to the merits of the professional doctorate versus the traditional doctor of philosophy degree for nurses. Health academics and senior managers, educators and clinicians should meet in a series of forums nationally in order to elevate the profile of the two main forms of doctoral education and stimulate others to consider their own professional development needs in response to these colloquia.

REFERENCES

AQF (Australian Qualifications Framework) 2011 *Australian Qualifications Framework*. Retrieved from http://www.aqf.edu.au/ (accessed 10.03.14).

Baal, P., Meltzer, D. and Brouwer, W. 2014. Future Costs, Fixed Healthcare Budgets, and the Decision Rules of Cost-Effectiveness Analysis. *Health Economics,* 25(2):237–248.

Bourner, T., Bowden, R. and Lang, S. 2001. Professional doctorates in England. *Studies in Higher Education,* 24(2):75-93.

Buchanan, A.L. and Hérubel, V.M. 1995. *The doctor of philosophy degree: A selective annotated bibliography*. Westport, CT: Greenwood press.

Cleary, M., Hunt, G. and Jackson, D. 2011. Demystifying PhDs: A review of doctorate programs designed to fulfil the needs of the next generation of nursing professionals. *Contemporary Nurse,* 39(1):273-280.

Crasswell, G. 2007. Deconstructing the skills training debate in doctoral education. *Higher Education Research & Development,* 26(4):377-391.

Dall, T.M., Gallo, P.D., Chakrabarti, R., West, T., Semilla, A.P. and Storm, M.V. 2013. An aging population and growing disease burden will require a large and specialized health care workforce by 2025. *Health Affairs,* 32(11):2013-2020.

Elf, M., Fröst, P., Lindahl, G. and Wijk, H. 2015. Shared decision making in designing new healthcare environments—time to begin improving quality. *BMC Health Services Research*, 15(114):1-7.

Ellis, L.B. 2005. Professional doctorates for nurses: mapping provision and perceptions. *Journal of Advanced Nursing,* 50(4):440-448.

Ellis, L. 2007. Academics’ perceptions of the professional or clinical doctorate: findings of a national survey. *Journal of Clinical Nursing,* 16(12):2272-2279.

Fink, D. 2006. The professional doctorate: Its relativity to the PhD and relevance for the knowledge economy. *International Journal of Doctoral Studies,* 1(1):35-44.

Galvin, K. and Carr, E. 2003. The emergence of professional doctorates in nursing in the UK: where are we now? *NT Research,* 8(4):293-307.

Golde, C. 2007. Signature pedagogies in doctoral education: are they adaptable for the preparation of education researchers? *Educational Researcher* 36(6):344-351.

Green, H. and Powell, S. 2005. *Doctoral Study in Contemporary Higher Education*. Maidenhead: Open University Press.

Gregory, M. 1997. Professional scholars and scholarly professionals. *The New Academic* Summer: 19-22.

Heidemeier, H. and Staudinger, U.M. 2015. Age differences in achievement goals and motivational characteristics of work in an ageing workforce. *Ageing and Society,* 35(04):809-836.

Hessling, P. 1986. *Frontiers of Learning: The PhD Octopus*. Dordrecht: Foris.

Jacob, E.R., McKenna, L. and D'Amore, A. 2015. The changing skill mix in nursing: considerations for and against different levels of nurse. *Journal of Nursing Management*, 23(4):21-426.

Kot, F.C. and Hendel, D.D. 2012. Emergence and growth of professional doctorates in the in the United States, United Kingdom, Canada and Australia: a comparative analysis. *Studies in Higher Education,* 37(3):345-364.

Lyotard, J-F. 1987. *The postmodern condition: A report on knowledge*. (Bennington, G. and Massumi, B. Trans.). Manchester: Manchester University Press. (Originally published in 1979).

Maxwell, T.W. 2011. Australian professional doctorates: Mapping distinctiveness, stress and prospects. *Work based learning e-journal,* 2(1):24-43 (http://wblearning-ejournal.com).

Maxwell, T.W. and Kupczyck-Romanczuk, G. 2009. Producing the professional doctorate: the portfolio as a legitimate alternative to the dissertation*. Innovations in Education and Teaching International,* 46(2):135-145.

McGagh, J., Marsh, H., Western, M., Hastings, P., Mihalova, A. and Wenham, M. 2016. *Review of Australia's Research Training System* Report for the Australian Council of Learned Academies, www.acola.org.au.

McVicar, A., Caan, W., Hillier, D., Munn-Giddings, C. Ramon, S. and Winter, R. 2006. A shared experience: an interdisciplinary professional doctorate in health and social care*. Innovations in Education and Teaching International,* 43(3):211-222.

Morgan, D. and Somera, P. 2014. The Future Shortage of Doctoral Prepared Nurses and the Impact on the Nursing Shortage. *Nursing Administration Quarterly*, 38(1):22-26.

Neumann R Doctoral differences: Professional doctorates and PhDs compared. *Journal of Higher Education Policy and Management,* 27(2):173-188.

Neumann, R. 2007. Policy and practice in doctoral education. *Studies in Higher Education,* 32(4):459-473.

Newman, M.A. 1997. The professional doctorate in nursing: a position paper. *Image,* 29(4):361-365.

Nowotny, H., Scott, P. and Gibbons, M. 2005. 'Rethinking science': Mode 2 in societal context. In E.G. Carayannis and D.F. Campbell (ed). *Knowledge Creation, Diffusion, and Use in Innovation Networks and Knowledge Clusters: A Comparative Systems Approach Across the United States, Europe and Asia*. Praeger, Westport, CT.

Olsen, K. and Clark, C.M. 2009. A signature pedagogy in doctoral education: The leader-scholar community. *Educational Researcher,* 38(3):216-221.

Pearson, A., Borbasi, S. and Gott, M. 1997. Doctoral education in nursing for practitioner knowledge and for academic knowledge: the University of Adelaide, Australia, *Image,* 29(4):365-368.

Pearson, M. 1999. The changing environment for doctoral education in Australia: Implications for quality management, improvement and innovation. *Higher Education Research & Development,* 18(3):269-287.

Ramcharan, P., Ashmore, R., Nicklin, L. and Drew, J. 2001. Nursing scholarship in the British university system. *British Journal of Nursing,* 10(3):196-206.

Rolfe, G. and Davies, R. 2009. Second-generation professional doctorates in nursing. *International Journal of Nursing Studies,* 46(9):1265-1273.

Scott, P. 2006. The Global Context of Doctoral Education. *EUA Bologna Handbook: Making Bologna work*, European University Association.

Shulman, L.S. 2005. Signature pedagogies in the professions. *Daedalus,* 134(3):52.59.

Trafford, V. and Leshem, S. 2002a. Anatomy of a doctoral viva. *Journal of Graduate Education,* 3:33-41.

Trafford, V. and Leshem, S. 2002b. Starting at the end to undertake doctoral research: predictable questions as stepping-stones. *Higher Education Review,* 33(4):43-61.

Wallgren, L. and Dahlgren, L-O. 2005. Doctoral education as social practice for knowledge development: Conditioning and demands by Industry PhD students. *Industry & Higher Education,* 19(6):433-443.

Watson, R., Thompson, D.R. and Amella, E. 2011. Doctorates and nurses. *Contemporary Nurse,* 38(1-2):151-159.

Weberg, D. 2012, Complexity leadership: A healthcare imperative. *Nursing Forum,* 47(4):268-277.

Wellington, J. and Sykes, P. 2006. 'A doctorate in a tight compartment': Why do students choose a professional doctorate and what impact does it have on their personal and professional lives? *Studies in Higher Education,* 31(6):723-734.

WHO, 2016. Global strategic directions for strengthening nursing and midwifery 2016–2020. http://www.who.int/hrh/nursing_midwifery/global-strategic-midwifery2016-2020.pdf

Wood, M. 1999. "The move towards a different career pattern: are women better prepared than men for a modern career?" *Women in Management Review*, 14(1):21-22.

December 2016 - February 2017
Volume 34 Issue 2

AJAN

australian journal of advanced nursing

An international peer reviewed journal of nursing research and practice

IN THIS ISSUE

RESEARCH PAPERS

SCHOLARLY PAPERS

34:2

THE AUSTRALIAN JOURNAL OF ADVANCED NURSING

The Australian Journal of Advanced Nursing aims to provide a vehicle for nurses to publish original research and scholarly papers about all areas of nursing. Papers will develop, enhance, or critique nursing knowledge and provide practitioners, scholars and administrators with well-tested debate.

The AJAN will:

- publish original research on all nursing topics
- publish original scholarly articles on all nursing topics
- process manuscripts efficiently
- encourage evidence-based practice with the aim of increasing the quality of nursing care
- provide an environment to help authors to develop their research and writing skills
- provide an environment for nurses to participate in peer review

ISSN 1447-4328

Copyright

Indexing

The AJAN is indexed in the CINAHL (Cumulative Index to Nursing and Allied Health Literature) Database, Current Contents, International Nursing Index, UnCover, University Microfilms, British Nursing Index, Medline, Australasian Medical Index and TOC Premier.

PRODUCTION

Editor
Lee Thomas

Journal Administrator
Anne Willsher

Publisher and Editorial Office
Australian Nursing and Midwifery Federation
PO Box 4239
Kingston ACT, Australia 2604
tel +61 2 6232 6533
fax +61 2 6232 6610
email: ajan@anmf.org.au
http://www.ajan.com.au

AJAN
australian journal of advanced nursing

December 2016 - February 2017
Volume 34 Issue 2

CONTENTS

RESEARCH PAPERS

SCHOLARLY PAPERS

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: AUSTRALIA

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: INTERNATIONAL

What prompts nurses to seek help from wound care consultants in spinal cord injury management?

AUTHORS

Julie Bundz
RN, MRehab
CNC, Spinal Outreach Team
Queensland Spinal Cord Injuries Service
Princess Alexandra Hospital
Woolloongabba, Queensland, Australia
julie.bundz@health.qld.gov.au

Sarita Schuurs
BPhty
Research Officer, Spinal Outreach Team
Queensland Spinal Cord Injuries Service
Princess Alexandra Hospital
Woolloongabba, Queensland, Australia
sarita.schuurs@health.qld.gov.au

Melissa Kendall
BSc (Psych), M Human Services, PhD
Associate Professor, School of Human Services & Social Work, Griffith University
Senior Research Officer, Transitional Rehabilitation Program
Queensland Spinal Cord Injuries Service
Princess Alexandra Hospital, Woolloongabba, Queensland, Australia
melissa.kendall@health.qld.gov.au

Delena Amsters
BPhty(Hons), MPhty
Senior Research Officer, Spinal Outreach Team
Queensland Spinal Cord Injuries Service
Princess Alexandra Hospital
Woolloongabba, Queensland, Australia
delena.amsters@health.qld.gov.au

KEY WORDS

help seeking, nurse consultant, pressure injury, community nursing, spinal cord injury

ABSTRACT

Objective

This study aimed to identify clinical scenarios that might prompt nurses to seek advice from a spinal cord injury wound care nurse consultant for pressure injury management. In addition, some attributes of nurses were examined for associations with intention to seek the help of a consultant.

Design

Exploratory quantitative survey.

Setting

Queensland, Australia.

Subjects

Fifty currently practising hospital and community based nurses

Main outcome measure(s)

Two part online survey - part one presented hypothetical clinical case scenarios, in which respondents indicated their likelihood of seeking help; and, part two examined participant attributes and work experience.

Results

Each scenario presented was rated as either of little importance or utmost importance by at least one respondent. Participants identified consultant personality and proximity as more influential on help seeking than timeliness, common sense or knowledge.

Conclusion

The study did not identify a pattern of association between the presence of certain clinical factors and intention to seek help from a spinal cord injury consultant nurse for pressure injury management. What is important and influential for one person may be of less importance for others. Consultants must market their value to nurses in order that they are front of mind during the help seeking process. Further studies are required to examine the decision making process associated with help seeking.

INTRODUCTION

Help seeking, the process of finding and receiving help from others, occurs in many contexts. Literature exists in a variety of domains including health, the workplace and education and pertains to reasons and triggers for seeking help, barriers to help seeking and help seeking outcomes (Wakefield et al 2014; Hammer and Vogel 2013; Geller and Bamberger 2012; Smith 2012; Mueller and Kamdar 2011; Howard-York 2006). Clinical nurses work in complex and challenging situations and may not always have the knowledge and skill set to meet the demands of all care tasks they must undertake. In such instances help seeking from colleagues may be beneficial. In the field of spinal cord injury management (SCI), understanding the help seeking behaviour of community nurses confronted with clients with pressure injuries could be valuable for improving outcomes.

“Help seeking behaviour represents intentional action to solve a problem that challenges personal abilities” (Cornally and Mc Carthy 2011, p286). A variety of factors may influence help seeking behaviour, including individual characteristics of the helper and the recipient, as well as relational and contextual factors (van der Rijt et al 2013; Bamberger 2009; Hoffman et al 2009; Nadler et al 2003). For some people, seeking help is an early response to a challenging problem, whereas for others it will follow a failure to resolve the issue independently. Following problem recognition, the help seeker forms an intentional decision to act, selects and engages a source of assistance, and discloses the problem in return for help (Cornally and McCarthy 2011).

Problem recognition requires the insight to appraise a situation and identify that the problem is worthy of seeking help and beyond personal capability to solve, or optimally influence (Howard-York 2006). Even when an individual is aware of the need for help, help seeking may not eventuate. The decision to seek help is influenced by socio cultural and motivational factors (Cornally and McCarthy 2011; Howard-York 2006). While it is generally accepted that outcomes can be enhanced through receiving help (Geller and Bamberger 2012), some associated costs exist. The potential to be seen as lacking in competence (Mueller and Kamdar 2011), reinforcement of feelings of dependency (Wakefield et al 2014) and the resource cost of expending time and energy in the process of help seeking (Geller and Bamberger 2012) are described as potential barriers to seeking help. Some people view help seeking as a learning opportunity, whilst others may desire a more expedient solution in which the helper solves the problem (Geller and Bamberger 2012; Cornally and McCarthy 2011).

Success in acquiring the knowledge to resolve a problem is linked to the selection of a capable helper. This choice can be influenced by a variety of factors including personality, relationship, economic and societal factors, as well as knowledge and skills (Amsters et al 2013; Cornally and McCarthy 2011). As the goal of help seeking is to resolve or improve a problem, failure to do so may negatively influence the decision to seek help, or choice of a helper in the future.

While much of the health literature related to help seeking pertains to clients seeking assistance from health providers, health professionals may also seek professional support in the workplace, as in the case of community nurses approaching a clinical nurse consultant (CNC) for expert advice or assistance. The role of clinical nurse consultancy for supporting community nurses is well documented (Jannings et al 2010; McSherry et al 2007; Austin et al 2006). As it is not practical for one nurse to know everything about every clinical scenario, seeking help, even at an advanced level of practice, can contribute to quality client care (Howard-York 2006; Jannings and Armitage 2001). In the case of SCI, a specific field which would be rarely encountered by many community nurses, a specialty CNC available for consultation in this area would seem a valuable resource.

The Spinal Outreach Team (SPOT), the community arm of the Queensland Spinal Cord Injuries Service, has provided free community based consultancy services throughout Queensland, Australia since 1996. SPOT is a multidisciplinary team of nursing and allied health professionals. Clients with SCI can seek help directly from SPOT or health professionals can seek help on their behalf. The service model strongly supports building capacity in other health professionals to manage SCI issues. SPOT maintains a web presence and promotes its consultancy service through regular communications to SCI clients and community services on its comprehensive database.

A significant proportion of the work of SPOT clinical nurses is related to skin integrity and pressure injuries. Anecdotal evidence from SPOT clinical nurses suggested that some community nurses will seek help early whilst others seek help at a late stage of pressure injury. With no apparent pattern to this variability, questions were raised about factors which might influence this phenomenon. Are the factors firmly based on the complexity of the clinical case or is help seeking behaviour influenced by such things as professional expectations, personality and relationships? Understanding these factors has the potential to facilitate earlier referral to consultancy services. Therefore, the purpose of this research was to explore the influences on help seeking by community nurses for pressure injury management in SCI.

METHOD

Subjects

Participants were self-selecting from the pool of hospital and community based registered nurses currently practising in Queensland. All nurses, regardless of current work environment or level of experience, were eligible to participate. A target of 100-150 participants was thought to be achievable based on the number of individuals and services listed on the SPOT database. Recruitment was via direct approach to individual nurses as well as via a general invitation in a health service newsletter. A snowballing technique was envisaged, with participants invited to suggest other potential participants or forward the invitation directly. All completed surveys were included for data analysis. Participation was voluntary and a single reminder was issued to nurses who did not complete the survey. Collection was ceased when no further participant suggestions or survey replies were received.

DATA COLLECTION

Data were collected by means of an anonymous online survey comprising two parts which was accessed by electronic link from the invitation to participate. Part one presented a hypothetical clinical case scenario involving a person with SCI residing in the community, with a subsequent pressure injury (see figure 1). Participants were asked to imagine themselves in the role of a community nurse providing a home visiting service to the person with SCI, even if this was not their current work role. Using a ten point Likert Scale ranging from ‘extremely unlikely’ to ‘extremely likely’, participants were asked to indicate their personal likelihood of seeking help from, firstly, a nursing consultant in SCI management and, secondly, from a different peer or colleague.

To ascertain the influence of various factors on the decision to seek help, the basic hypothetical case was then embellished with 29 different scenarios, each of which included one additional factor related to the wound, client attributes, health professional attributes or the environmental context (see figure 1). The scenarios were developed by a researcher based on discussion with the SPOT clinical nurse about factors that may prompt referral to SPOT. The survey was refined following pilot feedback from an experienced community clinical nurse who was not part of the research project.

The electronic survey presented the scenarios one at a time. For each new scenario, participants were asked to rate how this scenario would influence their decision to seek help from the SCI nursing consultant on a 10 point Likert Scale ranging from ‘No influence’ to ‘Strongest possible influence’. It was emphasised that participants should answer as they thought they really would act. Additionally, they were periodically reminded that each scenario was to be treated as an isolated case and not as part of a single escalating scenario.

Figure 1: Hypothetical case and scenarios

BASIC HYPOTHETICAL CASE

You are working as a community nurse, providing an in home visiting service. You have a 27 year old client called Andrew. He has C6 tetraplegia from a traumatic spinal cord injury sustained 5 years ago. Andrew lives alone in a unit complex but has paid carers to assist him with daily living tasks. Currently Andrew has a pressure injury on his right buttock and is resting in bed. You are aware of a community nurse called Frieda who has extensive experience with spinal cord injury. From time to time you have seen brochures from Frieda which state that she is able to provide a consultancy service in the area of spinal cord injury management, particularly wound care and bladder and bowel management.

SCENARIOS THAT MAY INFLUENCE DECISION TO SEEK CONSULTANT HELP

1. Andrew is unable to pay for nursing services to manage the wound. (Pay for nursing)	2. Underlying structures such as muscle, tendon or bone are visible. (Stage 4 wound)	3. The wound extends down into the subcutaneous fat. (Stage 3 wound)
4. Heavy exudate is coming from the wound. (Wound exudate)	5. Andrew has developed a second wound. (Second wound)	6. Urinary incontinence is hampering progress. (Urinary incontinence)
7. You suspect Andrew is becoming depressed. (Patient depression)	8. The wound has been static for a long time. (Static wound)	9. Andrew says resting in bed is causing him pain. (Patient pain)
10. Andrew has diabetes, is obese and has lower limb oedema. (Patient comorbidity)	11. Andrew has become acutely unwell. (Patient illness)	12. Andrew wants a second opinion. (Second opinion)
13. The wound has been present for more than three months. (Long duration)	14. The dressings being used are not staying in place. (Insecure dressings)	15. You've tried lots of things but nothing seems to be working. (Trial and error)
16. You think the condition of Andrew's wound is deteriorating. (Wound deterioration)	17. There is no active medical involvement in Andrew's wound management. (No medical involvement)	18. Andrew does not have enough care support to meet the wound care requirements. (Insufficient care)
19. You feel you have poor rapport with Andrew. (Rapport with patient)	20. Andrew is sitting up on the wound against your advice. (Sitting against advice)	21. The wound is oozing through the dressing. (Wound oozing)
22. Andrew prefers a different dressing to the one you recommend. (Dressing preference)	23. You think that Andrew's equipment may be causing the skin problem. (Equipment)	24. Andrew can't afford the recommended dressings. (Pay for dressings)
25. Andrew is passive about managing the secondary complications of his spinal cord injury. (Patient passivity)	26. You think some activity Andrew is doing in his day to day life may have caused the skin problem. (Patient activity)	27. Your caseload is very heavy. (Caseload)
28. The wound is malodorous. (Wound malodorous)	29. Andrew is refusing your visits. (Refusing visits)	

The second part of the survey examined a range of consultant and consultee characteristics. Experience and confidence with wound management and experience and confidence with SCI were measured on a 5-point scale ranging from low to high. Years of clinical experience and current age were measured in years. Respondent location was determined by postcode of place of work, with this data subsequently grouped into metropolitan, regional or rural. In relation to consultants, participants were also asked to rate if their previous experience with consultants had been helpful, unhelpful or limited. Similarly they were asked to identify if their organisation supported the use of clinical consultants, did not support clinical consultants or whether they were uncertain about their organisation's approach to consultants. Participants rated the statement 'If I knew and trusted the clinical consultant, this would make me more likely to seek their help' on a 5 point scale ranging from strongly disagree to strongly agree. Consultant factors such as proximity, personality, knowledge, timeliness and common sense were presented and participants were asked to rank these five factors in terms of their influence in seeking consultant help.

ANALYSIS

Descriptive statistics were used to illustrate the responses for each of the scenarios in relation to the hypothetical case. An exploratory factor analysis using Principal Components Analysis (PCA) with varimax rotation was conducted on scenario responses to determine a factor structure of the domains of influence on seeking help.

The factors that emerged from the factor analysis were saved as variables. Due to the non-parametric and ordinal nature of the data, Spearman's correlations were used to explore relationships between age, experience, confidence and consultant factors as they related to the scenario factors. Independent sample Kruskal Wallis Tests were used to explore differences in the scenario factors across location.

Ethics approval for this project was obtained from Metro South Human Research Ethics Committee and Uniting Care Queensland Human Research Ethics Committee.

FINDINGS

One hundred and twenty-two invitations to participate (and to distribute further) were issued by email. Fifty respondents completed the survey. The demography of this sample is shown in table 1.

Table 1: Demography of respondents

		Frequency n (%)
Age	Under 26	2 (4%)
	26-35	9 (18%)
	36-45	8 (16%)
	46-55	16 (32%)
	Over 55	15 (30%)
Years of clinical experience	Under 5	3 (6%)
	6-10	8 (16%)
	11-15	6 (12%)
	16-20	6 (12%)
	More than 20	27 (54%)
Location	Metropolitan	16 (32%)
	Regional	28 (56%)
	Rural	6 (12%)
Sector	Government	37 (74%)
	Non-government	13(26%)

Of the 50 participants, 42 (84%) identified they had previously had helpful encounters with consultants, 7 (14%) stated they had limited dealings with clinical consultants in the past, while only 1 participant identified negative unhelpful encounters with clinical consultants. Forty participants (80%) stated their organisation was supportive of clinical consultants, 6 (12%) suggested their organisation was not supportive of clinical consultants and 4 (8%) did not know whether their organisation was supportive of clinical consultants. Forty-two participants (84%) either agreed or strongly agreed with the statement that they would be more likely to seek help from a consultant that they knew and trusted. In rank ordering the aspects of consultants in terms of proximity, personality, knowledge, timeliness and common sense, participants identified proximity and personality as the two more important factors influencing their decision to seek help from a consultant, while knowledge was identified as the least influential factor.

For the basic hypothetical case of a client with SCI resting in bed due to a pressure injury, with no additional scenarios, around half the respondents indicated a high likelihood (8-10 on a ten point scale) of seeking help from a peer and slightly more than half from a SCI consultant. Participant responses for each of the 29 scenarios ranged from 1 to 10. This means that each scenario was considered of little importance or utmost importance, as a factor influencing help seeking, by at least one respondent. Table 2 provides means with standard errors and standard deviations for each scenario response. The scenarios most frequently identified as most influential in the decision to seek help from a consultant were unsuccessful trial and error; the patient wants a second opinion; the patient is refusing visits; having a Stage 4 wound; insufficient care; wound deterioration; patient passivity; equipment as the cause of the problem; and, no medical involvement. Those rated least influential included the inability of the patient to pay for nursing services; patient depression; respondent's caseload is heavy; the patient prefers different dressings; and, the wound is oozing.

Table 2: Means, standard error and standard deviation for the 29 help seeking scenarios

Help Seeking Scenario	*Mean (SE)*	*Standard Deviation*
Trial and error	8.76 (0.28)	1.99
Second opinion	8.56 (0.35)	2.49
Refusing visits	8.56 (0.36)	2.53
Stage 4 wound	8.42 (0.34)	2.41
Insufficient care	8.40 (0.33)	2.34
Wound deterioration	8.24 (0.35)	2.44
Patient passivity	8.18 (0.29)	2.07
Equipment	8.10 (0.39)	2.73
No medical involvement	8.06 (0.38)	2.68
Sitting against advice	7.92 (0.32)	2.29
Second wound	7.82 (0.37)	2.63
Long duration	7.76 (0.37)	2.62
Static wound	7.68 (0.34)	2.43
Urinary incontinence	7.66 (0.37)	2.58
Wound malodorous	7.66 (0.37)	2.63
Patient comorbidity	7.50 (0.41)	2.91
Stage 3 wound	7.48 (0.37)	2.59
Pay for dressings	7.46 (0.40)	2.83
Wound exudate	7.44 (0.40)	2.80
Patient activity	7.44 (0.38)	2.67
Insecure dressings	7.36 (0.40)	2.86
Patient pain	7.20 (0.37)	2.63
Patient illness	7.12 (0.46)	3.26
Rapport with patient	7.04 (0.38)	2.67
Wound oozing	6.96 (0.40)	2.81
Dressing preference	6.84 (0.39)	2.74
Caseload	6.32 (0.45)	3.15
Patient depression	6.20 (0.42)	2.98
Pay for nursing	5.62 (0.48)	3.41

An exploratory Principal Components Analysis (PCA) was conducted to explore whether there were a clear set of themes across the scenarios that work together to determine help seeking. The Kaiser-Myer Olkin Measure of Sampling Adequacy (KMO) 0.878 and Bartlett's Test of Sphericity ($\chi2 = 1742.36$, $p<0.001$) both indicated the factorability of the correlation matrix for the 29 scenario items. Varimax rotation was used to clarify the emerging factors. Four factors initially emerged with eigenvalues greater than 1 and these four factors accounted for 77.75% of the variance in the rotated factor solution. The fourth factor to emerge, however, consisted of only one scenario, namely that of respondent caseload. This scenario was removed and the resulting three factor solution accounted for 74.9% of the variance. Table 3 illustrates the scenarios associated with each factor, their eigenvalues, percent of variance explained and descriptive statistics. The first factor to emerge consisted of scenarios that were consistent with wound management, accounting for 42.7% of the variance. There were 19 scenarios that loaded on this factor. The second factor consisted of four scenarios that characterised general health, accounting for 16.9% of the variance. The third factor was characterised by scenarios that reflected relationships and these five scenarios accounted for 15.3% of the variance. These three factors were saved as separate variables for further analysis.

Table 3: Factor structure of help seeking scenarios

Help seeking scenario	*Factor 1: Wound*	*Factor 2: Health*	*Factor 3: Relationship*
Sitting against advice	0.889		
Wound oozing	0.866		
Wound malodorous	0.856		
Stage 3 wound	0.850		
Wound deterioration	0.826		
Insecure dressings	0.822		
Wound exudate	0.820		
Second wound	0.809		
Long duration	0.796		
Stage 4 wound	0.780		
Trial and error	0.752		
Patient activity	0.750		
Dressing preference	0.732		
No medical involvement	0.674		
Static wound	0.671		
Insufficient care	0.655		
Patient pain	0.646		
Equipment	0.623		
Patient passivity	0.612		
Patient illness		0.799	
Patient depression		0.783	
Urinary incontinence		0.724	
Patient comorbidity		0.621	
Refusing visits			0.850
Second opinion			0.829
Pay for dressings			0.771
Pay for nursing			0.608
Rapport with patient			0.424
Eigenvalue	11.96	4.73	4.29
% variance explained	42.71	16.88	15.33
α	0.98	0.86	0.80

Personal attributes including age (using ordinal groupings); experience (using ordinal grouping); experience and confidence in wound management; experience and confidence in SCI management; and location (metropolitan, regional, rural) were explored in relation to identification of each of the three scenario factors. Using $p<0.01$ significance levels to account for multiple comparisons, the only significant finding to emerge was a positive relationship between age of respondent and Factor 1, Wound (rho = 0.407, p=0.003). Older participants were more likely to identify wound management factors that influenced their decision to seek consultant help. Similarly, those with greater years of experience in nursing identified this factor more commonly (Rho = 0.408, p=0.002). Obviously, however, these two attributes are closely related (rho = 0.697, p<0.001).

DISCUSSION

This exploratory study aimed to identify scenarios that might prompt nurses to seek advice from an SCI wound care consultant for pressure injury management and explore whether consultant or consultee characteristics were related to the reasons that would prompt nurses to seek consultant help.

Results indicate that the majority of participants were positive about engaging consultants and perceived their organisations to be supportive of the use of consultants. There was, however, data to suggest that positivity towards consultants might be enhanced by 'knowing and trusting' that individual through previous engagement. A demonstrated preference in the data for a consultant known and trusted to the help seeker highlights the value of relationship building to facilitate future approaches. This supports the findings of Amsters et al (2013) regarding the contribution of relationships to creating links between consultants and consultees. Similarly, Seright (2011) describes the importance of collaborative relationships to clinical decision making in a group of novice nurses. This study highlighted social rather than evidence based aspects of decision making, with strong reliance on support of co-workers and seniors to validate clinical judgements.

Jannings et al (2010) identified access to expert clinical knowledge via consultants as important to generalist nurses. In the current study, it is interesting that knowledge was identified as the least influential consultant characteristic on the decision to seek help, behind proximity, personality, timeliness and common sense. Proximity and personality were given the highest ratings. Perhaps there is an assumption that all SCI consultants will possess adequate specialty knowledge, and being able to access and engage with the consultant will facilitate problem solving. Perceptions of accessibility and trustworthiness have previously been identified as important influences on help seeking (Hofmann et al 2009). The expansion of telehealth services may be an important development in bridging perceived proximity issues (Moffatt and Eley 2010).

Analysis of the responses to the 29 scenarios indicates that what held utmost importance to one participant may be of no importance to another participant. Every scenario had at least one participant rating of 10 (most likely to be a catalyst for help seeking) and 1 (least likely to be a catalyst for help seeking). To place this in context, for the scenario stating that "you think the condition of the wound is deteriorating", 24 participants rated this as a 10 but two participants rated this as a 1. One of the limitations of a closed question survey is that it is not possible to delve into the thought processes of those participants who did not view deterioration as a red flag for help. The message for the promotion of help seeking behaviour is that what seems important and influential for one nurse may hold little influence for another. It is a complex interplay of factors, including situational factors that may impact on seeking help (Adamson et al 2009). This has implications for education of nurses in the community, particularly where the goal is to facilitate early intervention. Problem recognition is the driving force in the process of seeking help, as engaging a consultant cannot occur without this step. Education must therefore be far reaching to educate nurses about the complex and individual needs of the SCI population and the desirability of early specialist consultation for optimum outcomes.

Factor analysis revealed a three factor solution which accounted for 74.9% of the variance. These factors can broadly be described as wound factors, health factors and relationship factors. Significant associations between these factors and respondent characteristics was limited to wound factors and age of respondent, with older participants more likely to identify wound factors as promoting help seeking behaviour. Further work is needed to understand the association between these variables but it may perhaps be related to positive experiences of using wound care consultants over time.

Limitations of this highly exploratory research are acknowledged. The sample size was smaller than anticipated due to a low response rate. Relying on participants to suggest other potential participants was not particularly successful and few responses were generated by people passing on the survey to others. Being mindful of busy clinical loads, and not wanting to unduly influence nurses to participate, the researchers did not continue to approach participants after the initial invitation and one follow up reminder. Although participants were asked to answer questions as they thought they would act, rather than should act, a social desirability bias may have influenced responses (Wasylkiw 2007). The nature of the potential bias is uncertain and may be influenced by professional or workplace culture as well as personal factors.

An alternative approach to gauging triggers for help seeking may have been to ask respondents to undertake a ranking or sorting of the factors, thereby forcing comparisons between factors. In addition, complementary qualitative data collection could elucidate the cognitive processes involved in making these choices. Participant sampling processes were not ideal. The sample consisted of nurses from a variety of backgrounds, who were asked to imagine themselves in the role of a community nurse. Surveying only nurses currently working in such a role may have provided different responses, however recruiting with such narrow employment criteria would doubtless prove challenging. Qualitative research exploring actual seeking help instances may be more informative and should be explored.

CONCLUSIONS/RECOMMENDATIONS

It was not possible from this study to identify particular circumstances that would prompt a community nurse to seek assistance from an SCI consultant nurse for pressure injury management. Results revealed that the nurses surveyed had varying reasons for seeking help. Factors related to the wound, client health and the relationship between nurse and client were regarded as being variably influential as catalysts for help seeking across the participant group.

This exploratory research suggests that to facilitate early referral and maximise the use of consultancy services (such as the Spinal Outreach Team), it is important to focus on all aspects of the help seeking process. Education, networking, relationship building, availability, approachability and positive personal attributes must all be viewed as influential factors. While this study has not provided definitive results, further research may identify other environmental or personal determinants as yet unidentified. Such information has potential application across a broad range of consultancy services.

REFERENCES

Adamson, J., Ben-Shlomo Y., Chaturvedi N. and Donovan J. 2009. Exploring the impact of patient views on ‘appropriate’ use of services and help seeking: A mixed method study. *British Journal of General Practice,* 59(564):226–33.

Amsters, D., Kendall, M., Schuurs, S., Lindeman, M. and Kuipers, P. 2013. Allied health professionals as consultants: An exploratory study in an Australian context. *The Internet Journal of Allied Health Sciences and Practice,* 11(3):1–10.

Austin, L., Luker, K. and Martin, R. 2006. Clinical nurse specialists and the practice of community nurses. *Journal of Advanced Nursing,* 54(5):542-552.

Bamberger, P. 2009. Employee Help-Seeking: Antecedents, Consequences and New Insights for Future Research. *Research in Personnel and Human Resources Management*, 28:49–98.

Cornally, N. and McCarthy, G. 2011. Help-Seeking behaviour: A concept analysis *International Journal of Nursing Practice,* 17(3):280–288.

Geller, D. and Bamberger, P. 2012. The Impact of Help Seeking on Individual Task Performance: The Moderating Effect of Help Seekers’ Logics of Action. *Journal of Applied Psychology,* 97(2): 487–497.

Hammer, J. and Vogel, D. 2013. Assessing the Utility of the Willingness/Prototype Model in Predicting Help-Seeking Decisions. *Journal of Counseling Psychology,* 60(1):83–97.

Hofmann, D.A., Lei, Z. and Grant, A.M. 2009. Seeking Help in the Shadow of Doubt: The Sensemaking Processes Underlying How Nurses Decide Whom to Ask for Advice. *Journal of Applied Psychology* 94(5):1261–1274.

Howard-York, L. 2006. Nursing Students: What Factors Influence Help Seeking? University of Southern California.

Jannings, W. and Armitage S. 2001. Informal Education: A Hidden Element of Clinical Nurse Consultant Practice. *The Journal of Continuing Education in Nursing,* 32(2):54–59.

Jannings, W., Underwood, E., Almer, A. and Luxford, B. 2010. How useful is the expert practitioner role of the clinical nurse consultant to the generalist community nurse? *Australian Journal of Advanced Nursing*, 28(2):33-40.

McSherry, R., Mudd D. and Campbell, S. 2007. Evaluating the perceived role of the nurse consultant through the lived experience of healthcare professionals. *Journal of Clinical Nursing,* 16(11):2066–2080.

Moffatt, J. and Eley, D. 2010. The reported benefits of telehealth for rural Australians. *Australian Health Review,* 34(3):276–281.

Mueller, J. and Kamdar, D. 2011. Why Seeking Help from Teammates Is a Blessing and a Curse: A Theory of Help Seeking and Individual Creativity in Team Contexts. *Journal of Applied Psychology,* 96(2):263–276.

Nadler, A., Ellis, S. and Bar, I. 2003. To Seek or Not to Seek: The Relationship Between Help Seeking and Job Performance Evaluations as Moderated by Task-Relevant Expertise. *Journal of Applied Social Psychology* 33(1):91–109.

Seright, T.J. 2011. Clinical decision-making of rural novice nurses. *Rural and Remote Health,* 11(3):1726.

Smith, C. 2012. Mental health and help-seeking in adolescence. *Australasian Epidemiologist,* 19(1):5-8.

van der Rijt, J., Van den Bossche, P., van de Wiel, M.W.J., De Maeyer, S., Gijselaers, W.H. and Segers, M.S.R. 2013. Asking for Help: A Relational Perspective on Help Seeking in the Workplace. *Vocations and Learning,* 6(2):259–279.

Wakefield, J., Hopkins, N. and Greenwood, R. 2014. Help-Seeking Helps: Help-Seeking and Group Image. *Small Group Research,* 45(1):89–113.

Wasylkiw, L. 2007. Social Desirability Bias. In *Encyclopedia of Social Psychology*, edited by Baumeister, R and Vohs, K. SAGE: Thousand Oaks, CA. [Online], available from http://dx.doi.org/10.4135/9781412956253.n527 (accessed 16.03.15).

The Cancer Nurse Coordinator Service in Western Australia: perspectives of specialist cancer nurse coordinators

AUTHORS

Professor Leanne Monterosso
Chair of Clinical Nursing (Joint appointment with St John of God Hospital Murdoch)
School of Nursing and Midwifery
The University of Notre Dame Australia
19 Mouat St, Fremantle, Western Australia
leanne.monterosso@nd.edu.au

Violet Platt
RN, BSc (Hons), MNursing
Co-Director and Director of Nursing -WA Cancer and Palliative Care Network, Ground Floor, C Block, 189 Royal St, East Perth, Western Australia
Violet.Platt@health.wa.gov.au

Professor Meinir Krishnasamy
BA, RGN, Dip N, MSc, PhD
Executive Director of Cancer Nursing and Allied Health, Peter MacCallum Cancer Centre, St Andrews Place, East Melbourne, Victoria, Australia
Meinir.krishnasamy@petermac.org,

Professor Patsy Yates,
Head of School of Nursing and Director, Centre for Palliative Care Research and Education, Queensland Health
Queensland University of Technology
Victoria Park Rd, Kelvin Grove, Queensland, Australia
p.yates@qut.edu.au

Associate Professor Caroline Bulsara
BA, Grad Dip Ed Studies, PhD
Research Coordinator, School of Nursing and Midwifery, 19 Mouat St, Fremantle, Western Australia
caroline.bulsara@nd.edu

KEYWORDS

cancer care coordination, cancer nursing, psychosocial care, specialist cancer nurse, service delivery

ABSTRACT

Objective

In Western Australia the cancer nurse coordinator (CNC) role is unique, state wide and situated in nursing. It requires the domains of clinical expert, resource consultant, educator, change agent, researcher and advocate to facilitate seamless coordination of care for patients across metropolitan, rural and remote geographical areas of Western Australia. This study examined the role, function and impact of CNCs from the perspective of coordinators themselves.

Design

Prospective two-phase mixed method study. This paper reports data from the Self Report Activity Questionnaire in Phase one.

Setting

The state-wide Western Australian Cancer Nurse Coordinator Service.

Subjects

Metropolitan and rural CNCs (n=18) who had worked in the role for at least six months.

Results

Overall, CNCs spent 70% of time in clinical consultation and 41% of CNCs reported having an educational role. Most CNCs (71%) noted that at least half of their patients had complex psychosocial needs at referral. Key role-related activities related to direct nursing care and patient education were performed most frequently on a daily basis. Tasks related to care management planning, patient advocacy and multidisciplinary clinical care were performed weekly. Strategic, team communication and professional development activities were performed less frequently.

Conclusion

Diversity of the CNC role was demonstrated with findings showing that CNCs fulfilled the core components of the specialist cancer nurse. Given the clear need to provide consistent support to cancer patients in an increasingly individualised and integrated manner, we consider the CNC role a fundamental element of quality cancer care.

INTRODUCTION

As a result of significant advances in cancer diagnosis and treatment, the overall 5-year relative survival from cancer has improved from 46% in 1982-1986 to 67% in 2007-2011 (AIHW 2014). The advanced capacity to achieve cure or long term remission has resulted in the delivery of more complex and multimodal treatments to patients over prolonged periods, resulting in multiple care teams and locations of care. Due to therapeutic advances, people previously ineligible for cancer treatment because of advanced disease, side effect burden or confounding comorbidities are now eligible for a new generation of treatments, bringing with them urgency for care coordination and navigation across several treatment teams and centres. This is particularly true for people with more complex needs and those disadvantaged by poor health literacy, rurality, or socioeconomic deprivation (Shen et al 2015; Moorin et al 2011).

Care coordination is recognised as an essential feature of high quality person-centred cancer care and critical to ensure optimal patient outcomes (COSA 2015; Shejila et al 2015). Whilst there is variation in the scope and practice of cancer care coordination, the key attributes include assessment and screening of clinical and supportive care needs; delivery of care consistent with established evidence based guidelines; timely and appropriate referral to multidisciplinary care and services; timely and consistent evidence-based education and information to patients and families (COSA 2015). These characteristics enable continuity of care, another critical element of the cancer care coordinator role (Walsh et al 2011; Aiello Bowles et al 2008).

Some studies have shown the benefit to patients and health service efficiency when nurse care coordinators or 'navigators' are involved in peoples' care (Wagner et al 2014). The study by Wagner et al (2014) highlighted the importance of the four elements of care coordination model as regular communication updates, facilitation of access to medical care, development of individualised care plans and conduct and consistently review care plans. These four elements facilitate the provision of optimal care and outcomes for patients outside of the hospital system.

Nonetheless, results from empirical studies have been equivocal, with limited robust evaluation of where or how nurse care coordinators contribute to improved patient outcomes (Young et al 2014). This has been due in part to a lack of robust measures to evaluate the impact of nurse care coordinators on patient outcomes. Walsh et al (2011), using coorelational analyses, attempted to capture the essential features of care coordination and develop a reliable and valid measure to assess the impact of care coordination roles on patient outcomes, but more work is needed to further refine our ability to tailor and target Cancer Nurse Coordinator (CNC) interventions and evaluate the impact of such interventions.

A qualitative study by Baker et al (2013) of breast, lung and prostate cancer patients during 18 months post diagnosis demonstrated the impact of poorly coordinated care and lack of a single point of contact on patient experience and emotional wellbeing as well as routine assessment. Potentially, even within the best case scenario following diagnosis, coordination of cancer care and effective ongoing communication between all parties can be compromised. Furthermore, the trajectory of the disease spans a considerably greater timeframe than the active treatment phase alone. During this time, patients can find themselves in a state of confusion over a number of issues around the management of their condition leading to maladjustment. If positive adjustment is not identified and dealt with early following diagnosis then anxiety and depression can worsen as the person enters the 'survivorship' phase (Schumacher et al 2013).

The status of Cancer Care Coordination in Australia

The Optimising Cancer Care in Australia report (COSA 2003) highlighted the complexity of the management of individuals with cancer given the need for multiple care providers across different care settings and over a considerable time frame. With limited process and systems to deliver coordinated care, the capacity to construct health care around the needs and preferences of patients, although increasingly recognised as the gold standard for cancer care (Kvåle and Bondevik 2008), in reality is often extremely difficult to achieve. Some studies have shown this requires a fine balance in terms of managing individual preferences in relation to the coordination of their care given the involvement of many health professionals across the illness trajectory through to survivorship phases of cancer (Thorne et al 2013; Brown et al 2012; Campbell 2006; Arora 2003).

To address these concerns, the Optimising Cancer Care in Australia (COSA 2003) report advocated for the need to provide integrated multidisciplinary care and proposed that optimal cancer treatment for all individuals would lead to improved survival, quality of life and smooth transition through the cancer journey. In response, the CNC role was introduced in many states of Australia but with considerable variation in scope, level of practice and function.

The context for this study

In Western Australia achieving care coordination for cancer patients is particularly challenging. The state spans 2,500,000 square kilometres and accounts for 30% of Australia's land mass with 38% of the population located in rural and remote areas (Australian Government 2007). Although 38% of the population are located in rural and remote areas, multimodal cancer treatments are only delivered in metropolitan Perth, and Bunbury in the south western corner of Western Australia. The disparity in availability of multimodal cancer treatments impacts access to and cost of care and treatment, potentially resulting in suboptimal outcomes for sectors of the population, for example, those residing in rural Australia, the older sectors of the population along with those from Aboriginal and Torres Strait Islander backgrounds.

A state-wide service utilising CNCs was implemented in 2006 as a key element of the Western Australian Cancer and Palliative Care Network. The CNC service was established to ensure, every person with complex care coordination requirements benefitted from a one-on-one relationship with a CNC; to facilitate navigation of the cancer care system for patients and their families; ensure timely access to multidisciplinary care teams and treatment decision making; and to provide a central point for consistent information and support across the cancer treatment pathway. The point of difference between a CNC and a nurse aligned with a ward, unit or clinic is that the CNC 'travels' with the patient, assessing symptoms/needs and managing care by modifying and adapting the patient's road map in line with current needs and preferences. No other role currently exists within the cancer environment with similar functions and accountabilities. By embedding CNCs across the state, the role functions could be tailored to the needs of differing patient groups depending on their level of health literacy, diagnosis and location (metropolitan or rural). The metropolitan CNC (mCNC) roles were developed to provide tumour stream specific support and advocacy for patients and families, while the rural CNC (rCNC) roles were introduced to provide broad cancer support and advocacy to patients in their regions. For rural patients requiring treatment in metropolitan Perth the CNCs functioned to provide coordination of care through partnership with Perth based tumour specific mCNCs. All of the mCNCs were and continue to be employed by the WA Cancer and Palliative Care Network. The rCNCs are employed in partnership with WA Country Health Services and are region-specific; they provide care to patients with all cancer types, interact with the rural and the metropolitan health care system and are exclusively used by rural patients. The rCNC positions are funded by the WA Cancer and Palliative Care Network with CNCs employed by and operationally responsible to the WA Country Health Service. Uniquely, CNCs were not located within a clinical environment allowing them the opportunity to interface with both patients and multidisciplinary professionals in a diversity of clinical and health environments.

Study aims

A study was undertaken to explore the contribution of both the mCNC and the rCNC roles to meeting the goal of the WA Health (Cancer) Services Framework (2005) in delivering a coordinated and streamlined approach to cancer care coordination for patients across the state. The objectives of the study and subsequent paper were as follows:

- to describe the CNC perception of the impact of their role;
- to examine roles and functions for the CNC role; and
- to explore factors that influenced the implementation of their role either positively or adversely.

Data were gathered from CNCs and the patients they cared for, patient informal carers and multidisciplinary colleagues between 2008 and 2010. This paper only reports findings from the first phase of this study which evaluated the role using survey methodology from the perspective of rural and metropolitan CNCs. Data from patients, carers, health professionals and the qualitative CNC component will be reported in subsequent manuscripts.

Ethical approval for the study was obtained from participating hospitals across Western Australia.

METHODOLOGY

The study adopted a prospective two-phase, exploratory design applying sequential mixed methods that used quantitative (survey) and qualitative (semi-structured interview) approaches to data collection. As previously noted, this manuscript will focus on the extensive survey findings from the CNC perspective. Data were transcribed into SPSS and analysed by an independent statistician to ensure independence of researchers to the analysis process.

Data collection

Prior to embarking on the first phase of the study, the clarity, internal consistency and content validity of an adapted version of the 99-item Evercare Nurse Practitioner Role and Activity Scale (ENPRAS) (Abdallah et al 2005) was undertaken. The ENPRAS was chosen for relevance and suitability in the Australian context. Six CNCs were invited to review the ENPRAS questionnaire and provide feedback regarding any missing items or requirement for clarification of wording. This process resulted in the addition of 66 items, resulting in a 165 item questionnaire, renamed the Self Report Activity Questionnaire (SRAQ). Details of the process undertaken to establish internal consistency, based on the works of (Imle and Atwood 1988; Lynn 1986; Aamodt 1983) are available from the authors.

The 165 items made up 11 subscales covering: direct nursing care; clinical care management; patient education in the clinical context; care management plan; patient advocacy in the clinical context; multidisciplinary clinical care; multidisciplinary team meetings; education services; strategic tasks; professional development; and team communications

Following a rigorous process to establish internal consistency of the adapted questionnaire, the SRAQ was found to have a high degree of internal consistency with an overall Cronbach's alpha coefficient of 0.976, and individual subscale Cronbach alpha coefficients ranging from 0.421 to 0.957. The original ENPRAS had a content validity index of ≥0.78 for all items and internal consistency reliability Cronbach's alpha scores ranging from 0.76 – 0.96 for subscales (Abdallah et al 2005).

Phase 1: Administration of the Self Activity Report Questionnaire (SARQ)

Sample population

All CNCs with at least six months experience working in the role were eligible and invited to participate in the study. At the time of the study, 20 CNCs were employed in the service, 18 of whom were eligible to participate and were invited to complete the SARQ.

Recruitment and data collection

Following education sessions regarding the purpose and scope of the study, CNCs were sent an information sheet providing details about the rationale and requirements of participation in the study and a copy of the study questionnaire. Where nurses completed and returned a questionnaire, consent was implied as is the standard process with survey distribution. Implied consent for survey data was approved by the HREC committees and was considered usual practice when sufficient information about the survey purpose and content has been given (Alessi and Martin, 2010)

Data analysis

Due to the small number of participants, descriptive statistics were applied to the majority of the data. Non-parametric tests (Mann-Whitney) were used to determine if there were any significant differences between metropolitan and rural CNC grouped data and continuous responses. Analyses were performed by an external statistician to ensure independence of analytical procedures and findings. A random sample of 10 percent of returned questionnaires were checked for data entry errors and no systematic errors were noted.

FINDINGS

Eighteen surveys were returned by the CNC participants (100% response rate). Given that there were two groups of CNCs by location (metropolitan and rural) this study explored the functional aspects of the CNC role, but also whether there were any trends between the two groups. Hence, while there were some differences in responses provided by metropolitan and rural CNCs it was not possible to reliably assess for significant differences across the groups.

Demographic characteristics

The average length of time the participants had been nursing was 18.6 years ±7.0 fulltime and 8.0 years ± 6.6 part-time. CNC repondents had been working with cancer patients for an average of 9.5 years ± 5.9 and the average length of time in the CNC role was almost two years (M=1.9; range:0.4 – 2.4) Qualifications included Graduate Certificates (n=12), one Master of Nursing and one Nurse Practitioner (Masters qualification).

Functions of the CNC role and patient caseload.

The mean patient caseload per CNC over the six month period preceding the data collection was 88.5 ±39.7 patient referrals, approximately 15 new referrals per month. The mean number of interventions performed per CNC was 437.8 ±240.7 approximately 78 per month Interventions delivered by the CNCs were categorised from level 1-5 according to the duration of time taken to deliver each intervention whereby time was used as a proxy for complexity (table 1).

Time spent on clinical consultation and non-clinical tasks

The average number of rostered hours per week spent on clinical consultation was 26 hours with 11 hours spent on clinical administrative tasks. Clinical administrative tasks which are core to optimal patient care and included input of written information for patient records and communication with other health professionals to arrange patient transportation/appointments/tests. There was an observed difference in overtime hours between metro and rural CNCs with metro CNCs reporting an average of five hours of overtime and rural CNCs reporting double that with 11 hours average overtime.

Sources of referral

CNCs were asked to provide a percentage of patient referrals from a number of sources. CNCs estimated that the majority of referrals originated from medical clinicians (19%), other CNCs (17%) along with MDT meetings (14%), and other hospital medical staff (12%). Interestingly, rural CNCs received more referrals from GPs (7%) compared with none (0%) amongst metro CNCs.

Table 1: Number and complexity of new patient referrals to CNCs during the first six months of role commencement

CNCs n=18	Metro (n=11)	Rural (n=6)	Total (n=17)	Mann-Whitney z	Mann-Whitney p
No. new patient referrals	89.6 (37.2)	86.5 (47.8)	88.5 (39.7)	-0.201	0.841
No. patient interventions:					
Level 1	111.0 (114.7)	139.2 (32.6)	120.9 (93.6)	-1.508	0.131
Level 2	153.0 (112.9)	215.3 (142.1)	175.0 (123.4)	-1.006	0.315
Level 3	87.6 (41.3)	111.3 (53.7)	96.0 (45.9)	-1.359	0.174
Level 4	30.5 (30.0)	47.7 (19.7)	36.6 (27.5)	-1.711	0.087
Level 5	8.5 (11.9)	14.2 (6.6)	10.5 (10.5)	-1.715	0.086
Total number of interventions	388.7 (263.8)	527.7 (176.6)	437.8 (240.7)	-1.608	0.108

[Level 1 = 5-10 mins provision of information; Level 2= 10-30 minutes signposting to other services; Level 3 = 30 mins – 1 hour new patient assessment of psychosocial and physical needs; Level 4 = 1-2 hours patient and family support; Level 5 = 2 hours or more complex ongoing intervention as per individual needs]

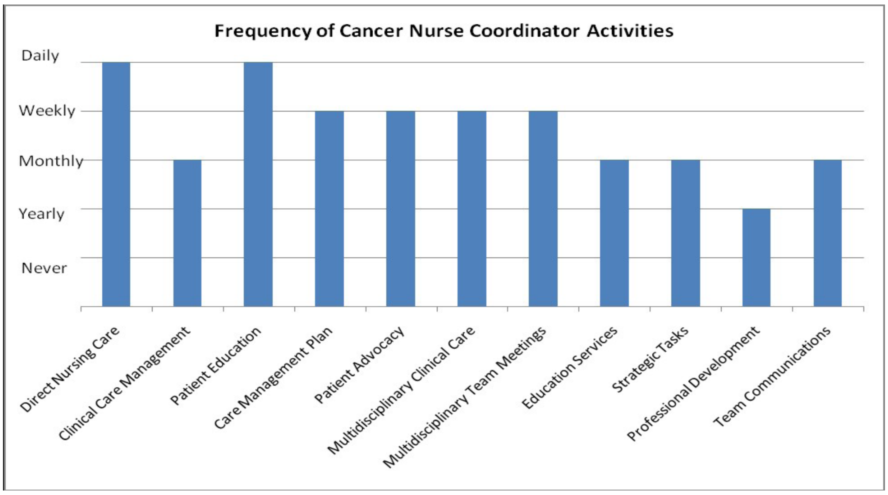
Table 2: Tasks performed frequently by CNCs

Task frequently performed by CNCs	No. respondents (n=17)	% respondents
5 top tasks performed daily by CNC		
Phone / email correspondence with families	14	82.4
Manage clinical caseload activity	13	76.5
Provide patient / families with my contact details	12	70.6
Conduct psychosocial assessment of patients	10	58.8
5 top tasks completed weekly by CNC		
Responsible for continuity of patient care	12	70.6
Care management plan which is patient focussed	11	64.7
Provide strategies for families to ask questions of health professionals	11	64.7
Review of assess a patient at health care team request	11	64.7
Advise or suggest other treatments to patients	11	64.7
5 top tasks performed monthly by CNCs		
Communicate with palliative care services for transfer of patients	11	64.7
Communicate with pharmacists on behalf of patients	11	64.7
Encourage nursing staff to enhance ability to recognise changes in patients	11	64.7
Meet with key stakeholders to build / promote the CNC role	11	64.7
Write reports (activity, annual reports etc)	11	64.7
5 top tasks performed yearly by CNCs		
Attend professional development	17	100.0
Attend regional meetings	15	88.2
Present at regional meetings	15	88.2
Communicate / arrange relevant staff regarding handover cover	15	88.2
Deliver community education talk	14	82.4

Role related CNC activity

CNCs reported eleven key role-related activities. Namely, direct nursing care; clinical care management; patient education; care management plan; patient advocacy; multidisciplinary care; multidisciplinary team meetings; education services; strategic tasks; professional development; team communications. Tasks were analysed as either (i) daily (ii) weekly (iii) monthly or (iv) yearly and comparisons made between metro and rural CNC respondents. Table 2 shows top five tasks per daily / weekly / monthly or yearly frequency. The graph below shows an overall representation of the frequency of CNC activities.

Figure 1: Frequency of Cancer Nurse Coordinator Activities



Direct nursing care

In terms of direct nursing care a majority of CNCs conducted daily symptom management (59%), psychosocial (53%), needs assessments (53%) and physical assessments (47%) of patients. In addition, twenty-four percent of CNCs use an evidence based screening tool to conduct a physical assessment of patients while 18% used an evidence based screening tool when conducting psychosocial or symptom management assessments of patients. In terms of differences between rural and metro CNCs, rural CNCs conducted some direct nursing care related tasks more frequently such as assessment of patients for mild behaviour changes at a daily frequency (50%) compared to weekly for metro CNCs (36%), and meeting with patients in their home at a yearly frequency (67%) compare to never for metro CNCs (82%)

Clinical care management

Daily clinical care management tasks included: discuss queries or health status changes with patient (53%) and family members (47%) and support them as they deal with changes. Tasks performed weekly most often included the identification/assessment and monitoring and follow-up patients with ongoing complex needs (53%).

Fifty nine percent of CNCs conducted bereavement follow-up with families. In terms of differences between metro and rural CNCs, rural CNCs conducted a number of *clinical care management* tasks more frequently than metro CNCs.

Patient education in a clinical context

All patient education in the clinical context tasks are performed by CNCs such as education of the patient (53%) and family (47%) about patient disease state and/or progression on at least a weekly basis. When compared to rural CNCs, metro CNCs more frequently conducted all patient education in the clinical context tasks, including education of the patient about patient disease state and/or progression, at a daily frequency (metro CNCs 73% and rural CNCs 83%).

Care management plan

In terms of care management planning most CNCs communicated the patient's care management plan daily with relevant health care professionals and educated patients about care management plans and its importance (35%). Metro CNCs more frequently conducted the care management plan tasks when compared with rural CNCs. Rural CNCs revised care management plans for patients more often at a weekly frequency (50%) than metro CNCs who performed this task at a monthly frequency (36%).

Patient advocacy in a clinical context

A large proportion (41%) of CNCs interpreted communication to a patient, or family member, by medical staff from culturally and linguistically diverse backgrounds on a daily basis. In addition, the majority of CNCs provided patients and families with strategies to ask questions, or raised issues, during a consultation with a health care professional (59%) and acted as the person responsible for continuity of care for patients (65%) on a weekly basis. In terms of rural and metro differences, although fifty five percent of metro CNC's interpreted or elaborated upon communication to a patient, or family member, by medical staff from culturally and linguistically diverse backgrounds on a daily basis, 50% of rural CNC's performed this task only yearly.

Multidisciplinary clinical care and team meetings

CNCs provide input to the patient care management team (47%) on a weekly basis. When compared to rural CNCs, metro CNCs more frequently consulted with appropriate discipline specialists about patient's condition changes with metro CNCs conducting this task at a weekly frequency (64%) compared with rural CNCs who conducted this task at a monthly frequency (50%).

Education services

Forty one percent of CNCs acted as a resource to support nursing or other staff on a weekly basis. Most education services were provided by CNCs on a monthly basis. Education services included educating individuals/groups of nursing, or other staff through informal (41%) and formal education (47%), and encouraging nursing or other staff to seek specific teaching opportunities with the CNCs (65%).

Metro CNCs more frequently conducted a number of professional education services when compared with rural CNCs. However, rural CNCs more frequently acted as a resource and/or support nursing, or other staff at a weekly frequency (67%) compared with monthly by metro CNCs (46%) and supported nursing staff who care for patients with unique needs (e.g. religious or cultural, non-compliance, stress/grief and loss reactions) at a weekly frequency (33%) compared with monthly by metro CNCs (36%).

Strategic tasks

Strategic tasks were directed towards service improvement or delivery for the cancer patient population and were less frequently conducted by CNCs compared with other tasks, with many tasks performed on a monthly or yearly basis. Strategic tasks performed by CNCs most frequently on a monthly basis included: meeting with key health providers/organisations to build and promote the CNC role (65%) and communicating or meet with various organisations in order to establish CNC service provision/referral process (47%) and communicating with Clinical Service Directors/Department Heads to discuss issues that impact on patient care (47%).

Professional development

Most professional development tasks were completed on a yearly basis although a majority of CNCs (59%) maintained continuing education and engaging with the latest research related to patient care issues within their clinical stream. The majority of CNCs never prepared papers for publication in peer reviewed journals (58%) or sat on a panel discussion at a regional meeting, state, national or international conference/symposia (65%). When compared to rural CNCs, metro CNCs more frequently: prepared abstracts, papers, or posters for conference presentation at a yearly frequency (64%) compared with never by rural CNCs (83%).

Team communications

Seventy-seven percent of CNCs documented and managed clinical caseload activity data relevant to their role (such as number and level of interventions performed on patients) on a daily basis. When compared with rural CNCs, metro CNCs more frequently: communicated/visited with another CNC in order to learn about their role at a monthly frequency (46%) compared with yearly by rural CNCs (67%) and attended CNC team meetings at a weekly frequency (54%) compared with monthly by rural CNCs (100%). Whereas rural CNCs provided mentoring or orientation to other CNCs or other nurses at a weekly frequency (33%), compared with metro CNCs who conducted this task monthly (54%).

Patient caseload

A majority of CNCs (71%) perceived that at least half of their patients had complex psychosocial care needs at the time of referral. Complexity was defined as those requiring further intervention such as 'significant psychological distress', 'significant physical impairment' and 'severe physical symptoms' (Clinical Oncological Society of Australia, The Cancer Council Australia, and National Cancer Control Initiative, 2003) all of which (combined or alone) can benefit from specialised interventions (e.g. counselling, psychotherapy, physiotherapy, speech pathology, occupational therapy, fertility services).

At time of referral, the majority of CNCs (71%) reported that approximately 50% of patients had complex psychosocial needs along with a moderate level of functional status which limited their ability to perform normal activity as measured by the Australia-modified Karnofsky Performance Scale (Abernethy et al 2005).

DISCUSSION

Navigation of the cancer care system can be confusing and stressful for patients and their families (Greer et al 2008; Wells et al 2008; Burgess et al 2005; Jefford and Tattersall 2002) given the plethora of treatments and services that a cancer patient interfaces with during their treatment phase. Data from this study show that CNCs role is key to improving patient experience through helping patients and family members manage the multiple and complex systems and processes involved in cancer service delivery, often over prolonged periods of time. The CNC study allowed the CNCs to identify through a systematic and focused process, factors that enable or hamper them in the implementation and delivery of what has been described by patients as a critically important coordinating function (Crane-Okada 2013). Although the CNCs in this study did not overtly refer to the level of cancer expertise required to be effective in the role, nonetheless, the 'silence' of nursing's articulation of its skill has been powerfully articulated by Buresh and Gordon (2006). Addressing the silence around the articulation of the CNC role and giving a nurses a voice to illustrate where the CNC role value adds to patient experience, may make a valuable impact on the way in which the role is understood, accepted and protected from health cost savings in the future.

Survey findings demonstrated that CNCs who participated in this study expressed diversity within their roles such as: being an advocate, psychosocial support person and services liaison coordinator amongst other clinical functions of the role. However, most importantly the findings demonstrate the diverse elements of their role were drawn together as a package of care relevant to the needs and circumstances of each patient. Furthermore, the purpose and function of the CNC role is to be the single point of contact, the constant in a complex, frightening and unfamiliar context for patients, irrespective of their context or culture. For colleagues, their role and function is to be the point of contact for orientation and communication of the treatment trajectory for individuals within their case load.

The challenge now for CNCs is to undertake robust research that captures and makes visible the impact of this role on patient experience but critically on patient outcomes.

LIMITATIONS

At the time of evaluation, the CNC service had been in progress for several months. While this limited the level of enquiry to a descriptive study, this study was able to evaluate the CNC role from the perspective of patients, carers, healthcare professionals and CNCs themselves. Publication of data from patients, carers and multidisciplinary health professionals is currently in train.

CONCLUSION

Cancer nurse coordinators are critically important roles in an ever increasingly complex cancer context given the need to provide consistent support to patients. As cancer therapies become ever more personalised, prolonging survival through increasing demand for prescription of life-long therapies, support will become a fundamental element of quality cancer care. Health care providers who traverse care boundaries and communicate across multiple health care teams will be invaluable resources to patients and professionals in this era. The challenge for nursing is to deliver empirical data to demonstrate the patient and system outcome benefits of having experienced cancer nurses in these roles and, equally importantly, when care pathway coordination can be achieved for patients through other members of the health care team. In reality, this will differ from context to context and the challenge for health services considering implementing care coordination roles is to understand the needs of their community in order to ensure that the skills and expertise of CNC resources are appropriately placed to deliver optimal experience and outcomes for people affected by cancer.

RECOMMENDATIONS

Further research is required to truly articulate the contribution of cancer nurse coordination. The art of cancer nursing developed over years of clinical experience combined with the science of contemporary nursing care and health system knowledge needs to be explored to demonstrate the benefits to patients with complex needs, their families and the health system as a whole; from an optimal health care and financial outcome.

REFERENCES

Australian Institute of Health and Welfare 2014. Cancer in Australia: an overview. 2014. Cancer series no. 78. Cat. No. CAN 75. Canberra: AIHW.

Aamodt, A. 1983. Problems in doing nursing research: Developing a criteria for evaluating qualitative research. *Western Journal of Nursing Research,* 5(4):398-402.

Abdallah, I., Fawcett, J., Kane, R.L., Dick, K. and Chen, J. 2005. Development and psychometric testing of the EverCare Nurse Practitioner Role and Activity Scale (ENPRAS). *Journal of the American Academy of Nurse Practitioners,* 17(1):21-26.

Abernethy, A.P., Shelby-James, T., Fazekas, B.S., Woods, D. and Currow, D.C. 2005. The Australia-modified Karnofsky Performance Status (AKPS) scale: a revised scale for contemporary palliative care clinical practice [ISRCTN81117481]. *BMC Palliative Care, 4*(7).

Aiello Bowles, E.J., Tuzzio, L., Wiese, C.J., Birlin, B., Greene, S.M., Clauser, S.B. and Wagner, E.H. 2008. Understanding high-quality cancer care: a summary of expert perspectives. *Cancer, 112*(4):934-942.

Alessi, E. and Martin, J. 2010. Conducting an Internet-based survey: benefits, pitfalls and lessons learned. *Spcial work research,* 34*(2):*122-128.

Arora, N.K. 2003. Interacting with cancer patients: the significance of physicians' communication behavior. *Social Science and Medicine,* 57:791-806.

Australian Government. 2007. Economic Roundup Spring. 2007 (T. Treasury, Trans.) (Vol. 2008). Canberra: Australian Government.

Baker, P., Beesley, H., Dinwoodie, R., Fletcher, I., Ablett, J., Holcombe, C. and Salmon, P. 2013. You're putting thoughts into my head': A qualitative study of the readiness of patients with breast, lung or prostate cancer to address emotional needs through the first 18 months after diagnosis. *Psycho-Oncology,* 22(6):1402-1410.

Brown, R., Butow, P., Wilson-Genderson, M., Bernhard, J., Ribi, K. and Juraskova, I. 2012. Meeting the decision-making preferences of patients with breast cancer in oncology consultations: impact on decision-related outcomes. *Journal of Clinical Oncology*, 30(8):857-862.

Buresh, B. and Gordon, S. 2006. *From Silence to Voice: What Nurses Know and Must Communicate to the Public*. Sage House, USA: Cornell University Press.

Burgess, C., Cornelius, V., Love, S., Graham, J., Richards, M. and Ramirez, A. 2005. Depression and anxiety in women with early breast cancer: five year observational cohort study. *British Medical Journal,* 330(7493).

Campbell, K. 2006. Methods of meeting patients' cancer information needs. *Nursing Times,* 102(14):28-30.

Clinical Oncology Society of Australia, 2015. Cancer Care Coordinator Position Statement. November 2015.

Clinical Oncological Society of Australia, The Cancer Council Australia, and National Cancer Control Initiative. 2003. Optimising Cancer care in Australia (pp1-122). Melbourne, Victoria.

Crane-Okada, R. 2013. Evaluation and outcome measures in patient navigation. *Seminars in Oncology Nursing,* 29(2):128-140.

Greer, J.A., Pirl, W.F., Park, E.R., Lynch, T.J. and Temel, J.S. 2008. Behavioral and psychological predictors of chemotherapy adherence in patients with advanced non-small cell lung cancer. *Journal of Psychosomatic Research,* 65(6):549-552.

Imle, M. and Atwood, J. 1988. Retaining qualitative validity while gaining quantitative reliability and validity: Development of the transition to parenthood concerns scale. *Advances in Nursing Practice,* 11(1):61-75.

Jefford, M. and Tattersall, M.H. 2002. Informing and involving cancer patients in their own care. *The Lancet Oncology,* 3(10):629-637.

Kvåle, K. and Bondevik, M. 2008. What is important for patient centred care? A qualitative study about the perceptions of patients with cancer. *Scandinavian Journal of Caring Sciences,* 22(4):582-589.

Lynn, M.R. 1986. Determination and quantification of content validity. *Nursing Research,* 35(6):382-385.

Moorin, R., Gibson, D., Bulsara, C. and Holman, C.D.J. 2011. Challenging the perceptions of cancer service provision for the disadvantaged: evaluating utilisation of cancer support services in Western Australia. *Supportive Cancer Care,* 20(8):1687-1697.

Schumacher, J.R., Palta, M., Loconte, N.K., Trentham-Dietz, A., Witt, W.P., Heidrich, S.M. and Smith, M.A. 2013. Characterizing the psychological distress response before and after a cancer diagnosis. *Journal of Behavioral Medicine,* 36(6):591-600.

Shejila, C.H., Pai, M.S. and Fernandes, D.J. 2015. Oncology Nurse Navigator Programme a Narrative Review. *Nitte University Journal of Health Science,* 5(1):103-107.

Shen, M.J., Binz-Scharf, M., D'Agostino, T., Blakeney, N., Weiss, E., Michaels, M. and Bylund, C.L. 2015. A mixed-methods examination of communication between oncologists and primary care providers among primary care physicians in underserved communities. *Cancer,* 121(6):908-915.

Thorne, S., Oliffe, J.L. and Stajduhar, K.I. 2013. Communicating shared decision-making: Cancer patient perspectives. *Patient Education and Counseling,* 90(3):291-296.

Wagner, E.H., Sandhu, N., Coleman, K., Phillips, K.E. and Sugarman, J.R. 2014. Improving Care Coordination in Primary Care. *Medical Care,* 52(11 Suppl 4):S33-S38.

Walsh, J., Young, J.M., Harrison, J.D., Butow, P.N., Solomon, M.J., Masya, L. and White, K. 2011. What is important in cancer care coordination? A Qualitative Investigation. *European Journal of Cancer Care,* 20(2):220-227.

Wells, K.J., Battaglia, T.A., Dudley, D.J., Garcia, R., Greene, A., Calhoun, E. and Raich, P.C. 2008. Patient navigation: state of the art or is it science? *Cancer,* 113(8):1999-2010.

WA Health (Cancer) Services Framework, WA Health Cancer ServicesTaskforce. 2005. WA Department of Health.

Young, J.M., Masya, L.M., Solomon, M.J. and Shepherd, H.L. 2014. Identifying indicators of colorectal cancer care coordination: a Delphi study. *Colorectal Disease,* 16(1):17-25.

The transition of overseas qualified nurses and midwives into the Australian healthcare workforce

AUTHORS

Se Ok Ohr
RN, BNSc, MHlthMgt, MACN
Nurse Manager, Nursing and Midwifery Services,
Hunter New England Local Health District
PO Box 1743 Newcastle, New South Wales, Australia
seok.ohr@hnehealth.nsw.gov.au

Doreen Holm
RN. RM, GradCertIR, MHRM
Nurse Manager, Nursing and Midwifery Services,
Hunter New England Local Health District
PO Box 1743 Newcastle, New South Wales, Australia
Doreen.Holm@hnehealth.nsw.gov.au

Sue Brazil
RN, RM, MN(Research), BN, MACN
Nurse Manager, Nursing and Midwifery Services
PO Box 1743, Newcastle, New South Wales, Australia
susan.brazil@hnehealth.nsw.gov.au

KEY WORDS

Overseas qualified nurses, transition, Australian healthcare, support, nursing practice

ABSTRACT

Objective

The purpose of this paper is to discuss the key elements to consider when developing and implementing strategies to enhance the transition of overseas qualified nurses and midwives (OQNMs) into the Australian healthcare clinical practice environment.

Setting

A local health district with a major metropolitan centre and a mix of large regional centres which provide a range of public health services, to a population of approximately 850,000 people located in New South Wales, Australia.

Subjects

Newly recruited overseas qualified nurses and midwives. Many of these nurses and midwives are from culturally and linguistically diverse backgrounds and different countries.

Primary argument

Within the Australian nursing and midwifery practice environment the recruitment of overseas qualified nurses has gradually increased. While transitioning into the practice environment requires a range of support strategies, there is limited information on how to support them.

Conclusion

The culturally constructed support program and its strategies assisted in minimising the impact of the challenges and difficulties faced by OQNMs in their transition into the Australian nursing workforce. The program was instrumental in improving their well-being and it provided a strategic framework to facilitate a smoother transition. Risks to patient safety were mitigated by providing opportunities for education so the provision of safe quality care was enhanced. This was also seen as a factor that enhanced the recruitment and retention of nurses in the workforce.

INTRODUCTION

The international recruitment of nurses into Australia has for some time been used as a strategy to fill gaps between supply and demand in the nursing workforce (Negin et al 2013; Health Workforce Australia 2012). According to an analysis of census data for overseas born health care workers, 66.8% of the 239,924 Australian midwives and nurses were born in Australia, with the next largest groups being born in the United Kingdom and Ireland and in Southeast Asia (Negin et al 2013). The census data also revealed a trend change in workforce diversity as indicated by an increase of 250%, or 5,956 of nurses and midwives born in South Asia. In particular, there has been an increase in the number of nurses and midwives from India, Nepal, Indonesia and the Philippines from 2006 to 2011. Migration of OQNMs into Australia is expected to continue as the shortage of nurses in Australian nursing and midwifery practice increases (Health Workforce Australia 2012).

Nurse and midwife migration provides an adequate supply of qualified practitioners into the health workforce in response to the demand for staff. The needs of the culturally and linguistically diverse Australian population are better able to be met by the introduction of OQNMs who provide culturally competent care by using their own cultural knowledge and language skills, which can influence direct patient care and up skill other nurses (Jeon and Chenoweth 2007; Omeri and Atkins 2002). However, nurse migration also brings a number of concerns.

Firstly, there has been growing international ethical concern about the recruitment of nurses from their country of origin, especially from developing countries already experiencing a shortage of skilled nurses (International Centre on Nurses Migration 2007; Sparacio 2005). This is often referred to as 'brain and skills drain' (Kingma 2009; Sparacio 2005). These concerns have led to investigations about migration flows, factors for migration and development of strategies for appropriate recruitment, as well as development of a variety of policies and guidelines (Dywili et al 2013; Kingma 2006; Zurn et al 2005).

The second concern relates to issues of safety and the quality of care provided by OQNMs in Australia. The Australian Health Professional Regulation Agency (AHPRA) reviews and assesses applications to gain registration in Australia on behalf of the Nursing and Midwifery Board of Australia (AHPRA 2016). The Australian Nursing and Midwifery Accreditation Council assesses the skills of nurses and midwives who want to migrate to Australia under the Australian Government's General Skilled Migration program (ANMAC 2016). This process is comparable to other countries such as United States of America (USA), Canada, New Zealand (NZ), and the United Kingdom (UK) (Xiao et al 2014). Generally, OQNMs need to meet five registration standards; Identity assessment, fit to practice, English requirement, competency–based nursing assessment and recency of practice.

Further, a number of studies call for researchers, policy makers, industry and academic leaders to investigate the impacts of globalisation on the nursing and health workforce (Jones and Sherwood 2014; Ohr et al 2011). They include transition of OQNMs into nursing practice and the safety and experiences of OQNMs in that nursing environment. The literature discussed both the contributions, its diversity and the concerns surrounding the migration of nurses and midwives, as well as the complexities involved (Newton et al 2012; O'Brien and Ackroyd 2012; Zhou et al 2011; Humphries et al 2008; Alexis et al 2007; Xu 2007).

Transition into both a new society and nursing practice arena is challenging for OQNMs and their families, as well as the organisations recruiting them. These challenges are closely linked to differences such as culture, language and clinical practice methods. For example, the differences between their country of origin and the host society's cultural norms and ways of carrying out nursing practice can impact on their transition (Ohr et al 2014; Deegan and Simkin 2010; Takeno 2010; Konno 2006). Further, even though cultural norms and practice can be similar there is still an impact on their transition, as it is in a different cultural context (Brunero et al 2008). Lessoning the impact of change is required for a smooth transition, and the need for cultural and professional support at a workplace level, is critical to increasing the individuals' capability to adjust to, and provide quality nursing care in the Australian clinical practice environment.

The existing literature emphasises the need for support strategies for the OQNMs entering a new nursing practice environment (Ohr et al 2014;NSWNMA 2012; Deegan and Simkin 2010; Zizzo and Xu 2009; Garling 2008; Sherman and Eggenberger 2008). The key support strategies identified by the authors are education programs which include an orientation program, a mentoring program, a logistics support and acculturation program, including language and communication training (Ohr et al 2014; Timilsina Bhandari et al 2014; Allan 2010; Boylston and Burnett 2010; Robinson 2009; Zizzo and Xu 2009; Sherman and Eggenberger 2008; Davis 2003; Ryan 2003). Some of the authors also indicate that the managers and local nurses require support strategies, such as how to deal with cultural challenges and supportive leadership within the diverse workforce (Ohr et al 2014; Pacquiao 2008; Sherman and Eggenberger 2008). However, a systematic review on the post hire transitional program for OQNMs indicated there was lack of evidence of the efficacy of the support strategies (Zizzo and Xu 2009). Contrary to the previous finding about the uncertainty of support strategies an international study tour report indicated that those support strategies were effective for the OQNMs' successful transition into the workplaces (Ohr et al 2014; Pacquiao 2008). Given the difference in opinions regarding what is required for OQNMs, there is scope to gain further insight into the effectiveness and use of support strategies.

This paper presents a discussion of the development and implementation of support strategies using an exemplar of a support program at an Australian Health organisation.

SUPPORT PROGRAM – AT A GLANCE

The exemplar is from a Local Health District located in New South Wales, Australia, (hereafter District) with a major metropolitan centre and a mix of several large regional centres which provide a range of public health services to a population of approximately 850,000 people. The District employs 15,500 staff including 8,300 fulltime equivalent nurses and midwives. With increased recruitment of OQNMs into the District, the Nursing and Midwifery Services (N&MS) identified that a support program was crucial in supporting a large cohort of OQNMs who were recruited during 2011-2012. Most of the recruits came from culturally and linguistically diverse backgrounds and were from more than 25 different countries. Although there was an increased number of OQNMs at the District during past decades, previous support was undertaken in an ad hoc manner, and was usually reactive, problem focused as opposed to being proactive and finding "solutions" to the challenges. Support provided lacked cultural sensitivity and coordination. In 2010 with active recruitment of OQNMs to the District, an Overseas Staff Support Program (OSSP) with different support strategies was developed and piloted. It was made available across the entire District in 2011 (see table 1).

In 2013, with an approval from the District's Research Ethics Committee for this quality assurance project, a cross-sectional study using a survey was conducted to evaluate the effectiveness of the support strategies. A total of 65 OQNs completed the survey. Ninety one per cent of the respondents were employed as a registered nurse or a registered midwife at 16 different facilities. At the time of survey, 82% of them were aged between 20 and 39 years, and 82% of were female. The countries where their first nursing qualifications were achieved were India (62%), UK (8%), and 10 other countries. The majority of respondents (69%) have had at least two years of experience prior to their arrival in Australia, and 65% of them had been in Australia for less than 24 months.

Table 1: Description of Overseas Staff Support Program

The Overseas Staff Support Program aims to improve the experience of the overseas qualified staff, and to provide advice and guidance to the managers and staff to support the overseas staff during their transition into the workplaces. The following support are available to new overseas recruits:

Prior to arrival:

- Assist visa applications
- Provide an Arrival Manual and information on the place they are going to work
- Connect with support people (the coordinator of the OSSP and a support person recruited through an Adopt- A-Nurse program)
- Provide Overseas Staff Orientation Manual to acclimatise with the Australian nursing practice

On arrival and on commencement of their work:

- Meet with the Nursing and Midwifery Services and/or volunteers to support transition into the society
- Provide a two days corporate orientation program for new staff
- Provide a day facility specific induction program to the workplace
- Support by a Clinical Nursing/ Midwife Educator (CNME) and a preceptor or a mentor
- Provide additional three days of specific education on working in the Australian Health Care system, including education about working within a different culture, medications and documentation.
- Provide a period of one to five days supernumerary days

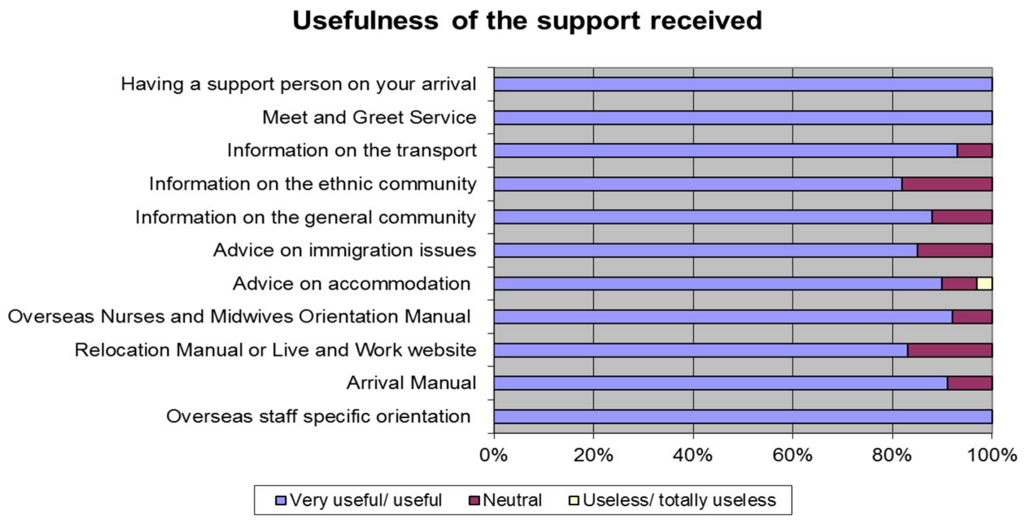
During their work at the District

- Conduct performance review by the manager or CNME to discuss their transitional needs at work
- Support from the coordinator of OSSP
- Provide cultural competency training called "Working within a diverse workforce" is being made accessible to OQNs and District staff
- Provide a fact sheet on immigration procedure and workshops
- Provide managers with a Guidance for Overseas Qualified Nurse and Midwife Recruitment: Manager's manual
- Annual overseas staff professional development day

OSSP coordinator was available as a support person through their transition period

The findings of the study indicated that more than 90% of the respondents found the support strategies useful for their transition. Table 2 indicates the most useful strategies were personal support and a welcoming atmosphere on arrival, and an orientation specifically designed for OQNMs to acclimatise into the Australian culture and nursing workforce.

Table 2: Program usefulness



Excerpts of qualitative data indicate satisfaction for the support they received on commencement of work. Comments revealed a sense of appreciation for the support received prior to and upon arrival in Australia.

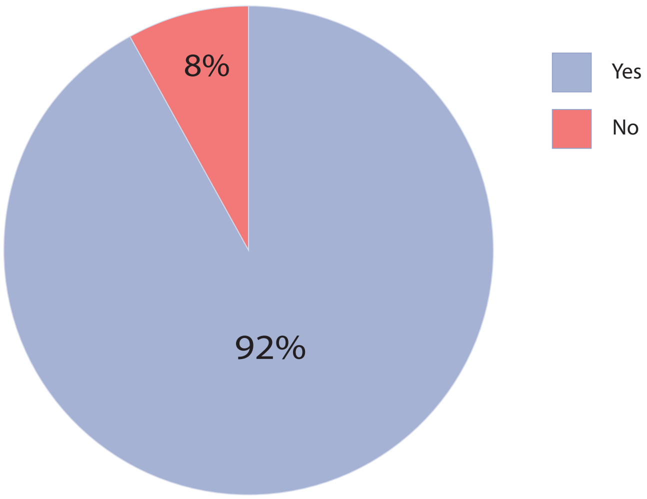
> *"…Gave me very good support in all aspects of settling in from the day of arrival and continued it for few weeks. Excellent job" OQNM 1*
>
> *"It is a great pleasure to know that somebody is there to look after you if you have no family and friends around you" OQNM 2*
>
> *"I felt I was really supported well when I started my job in the medical unit by co-workers and my nursing unit manager. I am really grateful." OQNN 3*
>
> *"All the support which I received was excellent. I had an excellent support from nurse manager, overseas staff support program to settle as a family and to settle in to the job. It will be very helpful if you continue that." OQNM 4*

Other respondents expressed the need to be informed of all available support strategies and a need to have further support. In fact, 66% of them were aware of the Overseas Staff Support Program.

> *"I would have liked someone special to turn to regarding questions or assistance." OQNM 5*
>
> *"Some simple things like library cards and where to move and where not to live (safe and unsafe areas) would have been helpful." OQNM 6*
>
> *"Could have done with more supernumerary days?" OQNM 7*

Further, anecdotal evidence collected suggested that Nurse Managers and Clinical Nurse Educators believed the support strategies were useful. Currently, all of OQNMs who were supported by the program remain employed in the District, and there have been a decreased number of referrals to the OSSP program manager to address issues of concern once work had commenced. In addition, ninety two per cent (92%) of respondents stated they would recommend, or have recommended the District as a potential employer (figure 1).

Figure 1: Respondents' recommendation of the District as a potential employer



DISCUSSION

In an attempt to change the cultural landscape across the organisation the principles of change management were used to provide a systematic, holistic framework that guided the development and implementation of the program (Neilson et al 2004). The change process was also embodied in open but targeted communication with frontline staff and managers. From an organisational perspective there was greater engagement and a progressive commitment to the program, which allowed the recruits and existing staff to be empowered to manage personal and professional changes. Seven key themes were identified as crucial to the success of the support strategies used across the District.

1. Leadership

Strategic leadership was identified as important in providing a vision for change and was the impetus for linking the program objectives to the District's strategic priorities. For example, the program aimed to be a mechanism to create better alignment to the priority area of "our staff and workplace culture (supporting and encouraging our staff)" (Hunter New England Local Health District 2013) and redress the imbalance.

Presentation of the program to, and endorsement by all nursing and midwifery managers at the District Nursing and Midwifery Senior Managers Forum enabled commitment to the change process to grow. With this commitment a Nurse Manager position was recruited to lead and oversee the development and implementation of a support program. Involving managers in the planning, implementation and evaluation phases developed a united sense of ownership and commitment to the program and its support strategies, at both the strategic and operational levels. Further on in its development the program became known as the Overseas Staff Support Program, and it was evident that the strong and united leadership of nursing and midwifery managers was a major factor in the success of the program.

2. Consultation

An extensive consultative process occurred in the planning and implementation phases (see table 3). Key stakeholders included Nursing and Midwifery Services, Human Resources, clinical staff, OQNMs, volunteers, and community cultural groups. The consultative team approach increased cohesion and synergy between key groups and assisted in the development of the program and its support strategies. This process involved several steps in identifying staff needs and in developing a model of support which was based on best practice principles, so that all members of the consultation group were included in various stages. This was instrumental in ensuring participants clearly understood what was expected as they communicated openly with each other.

Table 3: Measures taken to inform program development

An extensive review of literature
A review of support programs in other health services across Australia
Consultation with OQNMs already employed in the District and other District stakeholders
Survey of OQNMs to identify needs and a survey of nurse managers and clinical nurse educators
A study tour of the UK and USA by the nurse manager of the overseas staff support program
Review of evaluation feedback from the overseas staff professional day where 50 OQNMs and international allied health professionals participated
Ongoing case reviews within the Local Health District

3. Embedding the support strategies as normal practice

Embedding the practice of providing support into routine practice became essential. For example, including information about support strategies in the District's generic online education program called "Recruit, Select and Orientate new Employees," enhanced the dissemination of information to all staff which increased their awareness on how to support new OQNMs. Another example was to better inform managers through the development and circulation of a factsheet stating the steps involved in processing visa nominations and visa applications. This normalisation of providing support empowered the direct line managers, human resource personnel, as well as the OQNMs themselves to change the cultural landscape and embed the support strategies. In addition, the development of a standardised process and the associated policy compliance procedure about the recognition of prior experience for OQNMs was a positive outcome that emulated out of embedding the strategies.

4. Tailored support strategies

Different support strategies were used to meet the specific needs of the OQNMs, such as providing resources to assist clinical transition and community settlement. It was initially evident that basic needs such as accommodation, schools for children, community adjustment, and religious needs were as important as being able to meet the required Australian nursing competencies. Resources were developed and strategies aimed at providing support and delivery information about: 1) clinical transition into the Australian workforce; 2) settlement into the community; and 3) personal support was provided. Additional strategies included the provision of the Overseas Qualified Nurses and Midwives Orientation Program in both a face to face and online modality, and a hard copy of the Orientation Manual was specifically designed for OQNMs. Orientation included education about working in the Australian health care system, working within a different culture, and clinical information relating to specific policies and procedures about medications, their safe administration and clinical practice. The online orientation/education program was effective in supporting the dissemination of important information to OQNMs across a large diverse geographical area. An identified need for current clinical information was met by providing subject content on a USB stick or through emails. This information included the District's policies and procedures related to medications such as Nurse Initiated Medications, management of S8 and S4 drugs, information about insulin, warfarin, and high risk medications. It also included information about the minimum standards of patient care, rights and responsibilities, and professional nursing portfolio management. Beside these support strategies for clinical transition, the OQNMs were encouraged to access many resources from the NSW Ministry of Health online service and the DVDs such as "Nursing and Midwifery: No two days are the same" and "Ways of Working in Nursing" proved useful in increasing their understanding of Australian nursing practice.

To support them with community settlement, a number of resources were provided. For example, an Arrival Manual was given to them prior to their arrival in Australia. This gave access to basic information and an overview of the District to assist with work readiness, salary packaging for relocation expenses and settlement issues such as information about school choices, transport, and accommodation. Another example was the provision of a community information booklet that included information about the places they would live or work in. For immigration issues, Nursing and Midwifery services in conjunction with the Department of Immigration and Border Protection provided an information sheet and seminars on immigration matters.

Personal support on an individual basis was pivotal to their transition. A buddy program called, the Adopt-A-Nurse Program was introduced to provide each new recruit with a contact person who gave them individualised support. Those that gave the support were volunteers, and they were recruited by placing an advertisement within the District for all staff to see. The roles and boundaries of both the OQNMs and the support persons were clearly defined and managed by the overseas staff support program coordinator. The volunteer met and welcomed the family group into the community, and assisted them to find appropriate places for shopping and accommodation if required. Social networking occurred through invitations being extended to BBQs or afternoon tea. Some of the volunteers and the OQNMs developed long term friendships.

5. Support for the existing staff

To support cohesive team work and to increase staff capacity to work with OQNMs at the operational level resources about working with people from different cultures and education was made available to existing staff (both clinical and management). As line managers needed to work with the OQNMs from recruitment to work placement, a Manager's Guideline document was developed that included information about immigration matters, communication strategies, nursing competencies and other useful ways to provide support. Through the involvement of managers, co-workers and volunteers a supportive working environment developed.

6. Timely access to support

Depending on the needs of the individuals timely access to support was essential. For example, before arrival in Australia the overseas recruits were given access to the resource materials and if requested a volunteer was provided to support them during their preparation for relocation. Upon arrival they were provided with an orientation program and other support strategies. They were also provided with various seminars and professional development programs such as the "Overseas Staff Professional Day". This provided an opportunity for them to meet and share their experiences so they could create an internal support network which was aimed at improving their capacity to transit into the workforce.

7. Program leader

A designated person was appointed to lead the program and this was pivotal in ensuring that the program was well coordinated and each aspect was evaluated. The program leader was situated at the N&MS so support and guidance was available to the program manager particularly during the development, implementation and evaluation of the support strategies. The role was also instrumental in providing support to the managers and it was located in the N&MS as one of the primary functions of that team was to support managers to recruit and retain skilled staff.

CONCLUSION

The findings of the evaluation affirmed that the culturally constructed support program and its strategies assisted in minimising the impact of the challenges and difficulties faced by OQNMs in their transition into the Australian nursing workforce. The program established a strategic framework to facilitate a smoother transition and at the same time proved to be instrumental in improving the well-being of individual OQNMs. It also assisted with mitigating risks to patient safety by providing educational opportunities for OSNMs to enhance their capacity to provide safe quality care. All of these outcomes have enhanced the recruitment and retention of nurses into the District's workforce.

RECOMMENDATIONS

The support for the transition of overseas qualified staff into the Australian health care system continues to change, but it remains important to maintain support mechanisms and strategies to build the capacity and capability of the health workforce (Health Workforce Australia, 2012; NSW Health 2012) so they can provide safe quality patient care. With the health landscape constantly changing and the prediction of continued recruitment of OQNMs, supporting their transition into the workforce and into the Australian community will better equip the Australian health workforce to prepare for future challenges. It is envisaged that the lessons learnt by the District through the implementation of this program may provide insights to other health organisations that are likely to recruit OQNMs irrespective of location and discipline. Finally, further investigation of the relationship between support programs and the retention of OQNMs through a longitudinal study may be considered as an area for further exploration.

REFERENCES

Australian Health Practitioner Regulation Agency (AHPRA). 2015. Registration standards, http://www.ahpra.gov.au/Registration/Registration-Standards (accessed 18.07.15).

Australian Nursing and Midwifery Accreditation Council (ANMAC) 2016. Skilled Migration Services, available at http://anmac.org.au/skilled-migration-services (accessed 21.10.16).

Alexis, O., Vydelingum, V. and Robbins, I. 2007. Engaging with a new reality: experiences of overseas minority ethnic nurses in the NHS. *Journal of Clinical Nursing,* 16(12):2221-2228.

Allan, H. 2010. Mentoring overseas nurses: barriers to effective and non-discriminatory mentoring practices. *Nursing Ethics,* 17(5):603-613.

Boylston, M. and Burnett, I. 2010. Education, adaptation, and orientation of Korean nurses in a U.S. healthcare system. *Journal for Nurses in Staff Development,* 26(1):23-27.

Brunero, S., Smith, J. and Bates, E. 2008. Expectations and experiences of recently recruited overseas qualified nurses in Australia [Paper in special issue: Advances in Contemporary Transcultural Nursing, 2nd ed. Omeri, Akram and McFarland, Marilyn (eds)]. *Contemporary Nurse,* 28(1-2):101-110.

Davis, C. 2003. Helping international nurses adjust. *Nursing & Health Sciences,* 33(6):86-88.

Deegan, J. and Simkin, K. 2010. Expert to novice: experiences of professional adaptation reported by Non-English speakingnurses in Australia. *Australian Journal of Advanced Nursing,* 27(3):31-37.

Dywili, S., Bonner, A. and O'Brien, L. 2013. Why do nurses migrate? - a review of recent literature. *Journal of Nursing Management,* 21(3):511-520.

Garling, P. 2008. *Final Report of the Special Commission of Inquiry: Acute Care Services in NSW Public Hospitals Sydney*. NSW Government.

Health Workforce Australia. 2012. Health Workforce 2025 - Doctors, Nurses and Midwives. https://www.hwa.gov.au/our-work/health-workforce-planning/health-workforce-2025-doctors-nurses-and-midwives (accessed 12.10.15).

Humphries, N., Brugha, R. and McGee, H. 2008. Overseas nurse recruitment: Ireland as an illustration of the dynamic nature of nurse migration. *Health policy,* 87(2):264-272.

International Centre on Nurses Migration. 2007. International Nurse Migration & Remittances:Fact Sheet. Geneva: International Council of Nurses.

Jeon, Y. and Chenoweth, L. 2007. Working with a culturally and linguistically diverse (CALD) group of nurses. *Collegian,* 14(1):16-22.

Jones, C.B. and Sherwood, G. 2014. The globalization of the nursing workforce: Pulling the pieces together. *Nursing Outlook,* 62(1):59-63.

Kingma, M. 2006. *Nurses on the Move: Migration and the Global Health Care Economy.* Cornnell University Press: New York.

Kingma, M. 2009. The international workplace: Challenges and solutions. *International Journal of Nursing Studies,* 46(7):879-883.

Konno, R. 2006. Support for overseas qualified nurses in adjusting to Australian nursing practice: a systematic review. *International Journal of Evidence-Based Healthcare,* 4(2):83-100.

Negin, J., Rozea, A., Cloyd, B., and Martiniuk, A.L.C. 2013. Foreign-born health workers in Australia: an analysis of census data. *Human Resources for Health,* 11(1):1-16.

Neilson, G., Tipping, A., Aguirre, D., Lee, R., Jones, J., Hyde, P., Schirra, W., Krings, J., Staub, C. and Hamilton, B. 2004. An Overall Approach to Change Management, available at http://www.strategyand.pwc.com/media/uploads/AnOverallApproachtoChangeManagement.pdf (accessed 21.10.16).

NSW Health (2012) Health Professionals Workforce Plan 2012-2022 RIGHT PEOPLE, RIGHT SKILLS, RIGHT PLACE, available at http://www.health.nsw.gov.au/pubs/2012/pdf/hprofworkforceplan201222.pdf (accessed 01.04.13).

New South Wales Nurses and Midwives Association (NSWNMA). 2012. Smoothing the journey for migrant nurses. *The Lamp,* 69(10):28-29.

Newton, S., Pillay, J. and Higginbottom, G. 2012. The migration and transitioning experiences of internationally educated nurses: a global perspective. *Journal of Nursing Management,* 20(4):534-550.

O'Brien, T. and Ackroyd, S. 2012. Understanding the recruitment and retention of overseas nurses: realist case study research in National Health Service Hospitals in the UK. *Nursing Inquiry,* 19(1):39-50.

Ohr, S.O., Jeong, S., Parker, V. and McMillan, M. 2014. Organizational support in the recruitment and transition of overseas-qualified nurses: Lessons learnt from a study tour. *Nursing & Health Sciences,* 16(2):255-261.

Ohr, S.O., Parker, V., Jeong, S. and Joyce, T. 2011. Migration of nurses: why and where? *Australian Journal of Primary Health,* 16(1):17-24.

Omeri, A. and Atkins, K. 2002. Lived experiences of immigrant nurses in New South Wales, Australia: Searching for Meaning. *International Journal of Nursing Studies,* 39(5):495-505.

Pacquiao, D. (2008). Nursing care of vulnerable populations using a framework of cultural competence, social justice and human rights. *Contemporary Nurse, 28*(1-2), 189-197.

Robinson, J. 2009. 10 suggestions for orientation foreign- educated nurses: an integrative review *Journal for Nurses in Staff Development,* 25(2):77-83.

Ryan, M. (2003). A Buddy program for international nurses *Journal of Nursing Administration,* 33(6):350-352.

Sherman, R.O. and Eggenberger, T. 2008. Transitioning internationally recruited nurses into clinical settings. *Journal of Continuing Education in Nursing,* 39(12):535-544.

Sparacio, C. 2005. Winged Migration:Internatioal Nurse Recruitment- Friend or Foe to the Nursing Crisis. *Journal of Nursing Law,* 10(2):97-114.

Takeno, Y. 2010. Facilitating the transiton of Asian nurses to work in Australia *Journal of Nursing Management,* 18(2):215-224.

Timilsina Bhandari, K.K., Xiao, L.D. and Belan, I. 2014. Job satisfaction of overseas-qualified nurses working in Australian hospitals. *International Nursing Review,* 62(1):64-74.

Xiao, L.D., Willis, E. and Jeffers, L. 2014. Factors affecting the integration of immigrant nurses into the nursing workforce: A double hermeneutic study. *International Journal of Nursing Studies,* 51(4):640-653.

Xu, Y. 2007. Strangers in strange lands: a methsynthesis of lived experiences of immigrant Asian nurses working in Western countries. *Advances in Nursing Science,* 30(3):246-265.

Zhou, Y., Windsor, C., Theobald, K. and Coyer, F. 2011. The concept of differences of China-educated nurses working in Australia: A symbolic interactionist exploration. *International Journal of Nursing Studies,* 48(11):1420-1428.

Zizzo, K.A. and Xu, Y. 2009. Post-hire transitional programs for international nurses: a systematic review. *Journal of Continuing Education in Nursing,* 40(2):57-66.

Zurn, P., Dolea, C. and Stilwell, B. 2005. *Nurse retention and recruitment:developing a motivated workforce*. http://www.icn.ch/global/Issue4Retention.pdf (accessed 12.10.15).

Being a fellow patient to a critically ill patient leads to feelings of anxiety – an interview study

AUTHORS

Jannie Laursen
RN, Ma, PhD
Department of Surgery, Herlev Hospital, University of Copenhagen, Herlev Ringvej 75,
DK-2730 Herlev, Denmark
jala@ucc.dk

Trine Bonnevie Lundby
Nursing Head of Unit, RN,
Department of Surgery, Herlev Hospital, University of Copenhagen, Herlev Ringvej 75
DK-2730 Herlev, Denmark
Trine.bonnevie.Lundbye@regionh.dk

Anne Kjaergaard Danielsen
Research Nurse, PhD, RN, Ma(ed), MaCIN
Department of Surgery, University of Copenhagen
Herlev Ringvej 75,
DK-2730 Herlev, Denmark
Anne.kjaergaard.Danielsen@regionh.dk

Jacob Rosenberg
Professor, MD, DMSc.
Department of Surgery, University of Copenhagen
Herlev Ringvej 75
Dk-2730 Herlev, Denmark
Jacob.Rosenberg@regionh.dk

Conflicts of interest: The authors have no conflicts of interest regarding the present study.

Funding statement: This paper received no specific grant from any funding agency in the public, commercial or non-for-profit sectors.

KEYWORDS

Qualitative study, fellow patients, anxiety, patient interaction and professional support

ABSTRACT

Objectives
To explore in-patients' experiences being a fellow patient to patients who become critically ill.

Design
The study was designed as a qualitative phenomenological study.

Setting
The study was conducted in a surgical ward of a hospital in Denmark.

Subjects
Fifteen fellow patients to patients, who became critically ill.

Results
Three key themes emerged from the analysis of the data: patients' interaction, anxiety, and professional support. These findings demonstrated the importance of understanding how patients experienced being a fellow patient to patients, who become critically ill, their views on interacting with such a patient, how the patients who become critically ill influenced them, and what kind of support they needed from the health professionals.

Conclusion
The findings highlighted the different emotions and feelings experienced by fellow patients. It showed how the impact of the situation can lead to anxiety, a feeling of being forced into patient inter-action and the lack of professional support. Health professionals should have a central role in supporting the fellow patients and communicating with them about their experiences and this does not seem to be fulfilled sufficiently in daily clinical practice.

INTRODUCTION

During the last decade hospital interactions have been studied in various settings (Birklund and Larsen 2013). Often the interaction has been between different support groups, patient schools, special surgical techniques or a specific illness (Birklund and Larsen 2013). Most studies investigated the patient/nurse interaction or the doctor/patient relationship (Birklund and Larsen 2013; Larsen et al 2013). The perspective has changed during the last years from a focus on the health professionals to a focus on the patients' view (Larsen et al 2013). Still today, little research has focused on the patient-to-patient interaction. A recent study on the relationship between fellow patients stated, that 90% of patient interaction in the ward was with fellow patients and only 10% was with health professionals (Larsen et al 2013) .The study found, that interactions between patients were ambiguous, meaning the negative experiences were interconnected to the positive experiences, and the interaction was linked to the strength of the fellow patient (Larsen et al 2013). These numbers underline that more studies are needed to be able to understand the relationship between patients. A study on roommates' stress stated, that being with similar fellow patients reduced anxiety (Kulik et al 1993). Thus patients who were preoperatively assigned with a postoperative patient experienced less anxiety before an operation. The argument was the fellow patient could see that the other patients had a positive recovery (Kulik et al 1993).

The patients' perspectives of quality of care often differed from, how the hospitals structured their resources (Brooks 1999). Patients often had a more individual human perspective on quality of care and often the impression was that the quality of care was linked to personal and individual care (Armstrong et al 2003; Brooks 1999). Critically ill patients had an impact on the general ward staffing resources, and often the less dependent patients were affected. The critically ill patient demanded constant professional attention, which challenged the ward resources. The less dependent patient had to put their needs for care on hold, until the critically ill patient regained stability (Armstrong et al 2003; Steiner et al 2001).

Historically, hospitals were designed to focus on resources which lead to patients having to share rooms regardless of how sick they may be; a situation that could result in stress and insecurity for the fellow patients (Kulik et al 1993). Therefore, this study wanted to explore not only the patients' preferences, but focus on the feelings and the perspectives of fellow patients to patients, who become acutely ill (Rukstele and Gagnon 2013). The aim of this study was to investigate in-patients' experiences of being a fellow patient to patients, who become critically ill.

METHODOLOGY

Design

The approach in this study was to understand how in-patients' meanings and emotions were created through their experiences as fellow patients. The design was a qualitative study using individual interviews with a phenomenological approach to reach a deeper understanding of the fellow patients' experiences. When doing phenomenological research it obliges the researcher to hold back pre-understandings and assumptions to let new approaches and meanings emerge. To do so, two of the authors strove to set aside their pre-understandings of the phenomenon by letting the second author interview the first author about prior knowledge of the phenomenon. By doing so they were able to let new and deeper understandings become apparent (Finlay 2009 ; Fontanna 1994).

Participants

Patients were recruited from a Danish university hospital. Patients had to be gastroenterological surgical in-patients, be mentally and physically able to take part in an interview session and be willing to give informed consent. The nurse-patient ratio for this gastroenterological ward was one nurse to four patients. The participants had to meet the criteria of being a fellow patient to a surgical in-patient, whose physical status deteriorated severely within the previous 24 hours with either a transfer to ICU or who was not expected to survive and therefore was transferred to a single-bed patient room. Patients that met these criteria were invited to participate in a semi-structured individual interview.

Data collection

Individual semi-structured interviews were used to explore their experiences, feelings and meanings by being a fellow patient to an acutely ill patient. The semi-structured interview guide was prepared and tested in a pilot test involving three participants. This was to confirm its suitability to the subsequent interviews (Shenton 2004). The semi-structured interview guide was developed through these three interviews. All interviews were performed while the fellow patients were still hospitalised. All interviews were recorded and transcribed into full text. Data saturation was reached when no new approaches or new meanings came up during the interviews.

Ethical considerations

The study was reported to the Danish Data Protection Agency and was, according to Danish law, exempt from ethical approval from The Ethical Committee of The Capital Region of Denmark (H-2-2013-FSP56). The fellow patients were informed they could withdraw from the study at any time and it would not influence their treatment or care. Before each interview the participants were reassured of the confidentiality of the interview data, both orally and in writing, and all gave both written and oral consent to participation.

Data analysis

The interviews were transcribed into full text and a qualitative content analysis was used for analysing the data (Graneheim and Lundman 2004) (table 1), which involves the following steps: dividing the data into condensed meaning units, codes and then into themes. The two researchers performed the analysis in parallel processes; disagreement was discussed and resolved within the research group. The analysis of the interviews was an ongoing process within the first and second author. The analysis began with repeated and thorough readings of all text, to understand each part of the data as a whole and in its parts. When a theme emerged, the analysis focused on rereading the text to focus on the meaning units. These meaning units were clustered into patterns of understanding the phenomenon (Armstrong et al 2003; Steiner et al 2001).

Table 1: Illustration/sample of the analytical process

Interview data	Meaning unit/ condensed meaning unit	Code	Sub-Theme	Theme
Interviewer: How could the health professionals have helped you in this situation ***Fellow patient:*** Yes-they didn´t move the critical ill patient and I don't know why. But maybe because they were low on staff members or because they were very busy. Because it all happened so fast…	They were low on staff members or because they were very busy. It happened so fast	Low staff, busy, happened so fast	Understanding/ acceptance	Lack of support

RESULTS

Twenty six patients were screened and of these three were excluded due to mental illness, four due to linguistic difficulties, and four did not wish to participate. Thus, fifteen patients were interviewed. The median age of the fellow patients was 70.5 years ranging from 57 to 88 years, ten were male and five were female (table 2). All the participants were Danes. The interviews lasted up to 20 minutes. Three key themes emerged from the interviews: patients' interaction, anxiety and professional support. Table 3 shows statements taken from the interview data that were representative for the emerging themes.

Table 2: Baseline characteristic of the interviewed fellow patients

Informers	Sex	Age, years	Diagnose	Type of operation	ASA score
1	Female	78	Ileus	Explorative laparotomy	2
2	Female	78	Colon cancer	Hemicolectomy	2
3	Female	71	Lung cancer	Gastroscopy	2
4	Female	88	Diverticulosis	Colonoscopy	2
5	Female	78	Constipation	–	3
6	Male	81	Colon cancer	Colostomy	3
7	Male	66	Cholecystitis	–	2
8	Male	60	Pancreatic cancer	–	3
9	Male	57	Parastomal hernia	Laparoscopic herniotomy	2
10	Male	65	Cholecystitis	Laparoscopic cholecystectomy	3
11	Male	77	Peptic ulcer	Gastroscopy	3
12	Male	72	Hepatocellular carcinoma	–	3
13	Male	63	Pancreatic cancer	Gastroscopy	3
14	Male	67	Rectal cancer	–	3
15	Male	57	Strangulated inguinal hernia	Explorative laparotomy	1

Patients' interaction

Fellow patients described the emotional involvement they had in the critically ill patient. It was particularly difficult to handle the feelings of inability to help, and was often combined with a strong feeling of sympathy and wanting to care for the patient. The fellow patients felt a need and a responsibility to act as a substitute caregiver. However, they knew they could not offer much help, in spite of a strong desire to do so. A paradoxical feeling arose, as fellow patients felt they were forced into the interaction and at the same time were unable to leave the room and the situation.

Anxiety

Often fellow patients felt pacified in the interaction with the critically ill patient, they felt torn between a need to stay and a wish to leave the situation. The situation seemed forced on the fellow-patients and left them with an existential awareness of their own illness. These experiences were stressful and unpleasant for the fellow patients and left them with a feeling of anxiety. The anxiety was connected to their illness being reflected in the critically ill patients' severe and acute deterioration. The fellow patients often felt responsible for the critically ill patient. Many of the interviewed fellow patients felt a loss of control over the situation and they could not predict what was going to happen. Their loss of control in the situation often led to feeling paralyzed and unable to think rationally. A way to cope with the situation could be to ignore the severity of the critically ill patient or try to be in control of the situation by constantly trying to hold on to facts or seeking information.

Many experienced trouble sleeping and were more sensitive to noise, voices and technical equipment.

Professional support

A key issue for the fellow patients was the lack of information from the health professionals. They felt unsupported and left on their own. The situation with the critically ill patient left them with a need to talk about what had happened, they had many thoughts and their emotions were a balance between hope and despair. The experience left them with a feeling of anxiety over their own illness, and they described a wish to talk to the health professionals as an opportunity to manage their own feelings. Often the fellow patients were not asked to leave the room or there was not enough shielding from the critically ill patient and the fellow patient felt they were as much present in the situation as the critically ill patient and the health professionals were not helping the fellow patient out of the room or put shielding up.

Table 3: Study findings: Patient interaction, anxiety and professional support

Themes	Fellow patients' narratives across the interviews
Patient interaction	• I wanted to ask, if there was anything I could do for him, but I was very tired myself, and I didn´t feel it was my help he needed, what could I do, get him a glass of water! So I didn´t do anything. • Suddenly his breathing changed, it was different, I thought about calling for help, but fortunately there were two health professionals outside the room, and they came and helped. • I haven't slept all night- Wanted to help, asked if there was anything I could do, if I could help out, I would have, we must help each other, but I couldn't. • I was sorry that they put the shielding up, actually, because then I couldn´t keep an eye on her.
Anxiety	• No one dreamt that it would last for 4 hours and I was not offered any assistants. I just lay there. • I was glad that I could watch TV- the thoughts could then wander, the TV made it possible for me to get different pictures and sounds in my head, it was like I could push negative thoughts away. • I felt very bad that she was screaming. I didn´t know if I should call for help. I didn´t do anything, didn´t know what I should do. It felt chaotic, and I was in it all, but couldn't offer any help • I was not aware that I could leave the room, not on my own. Perhaps the health professionals could have assisted me. • I was reminded that we all have to say goodbye and die - it made me nervous, it is not very pleasant to see a man fight for his life. • The situation has put a pressure on me. It made me think about my situation, I want to function better. • I was anxious, in the end I could hardly continue with anything. • I tossed and turned, I have not been able to sleep.
Professional support	• The health professionals were very busy so they asked me to leave the room, after a while they came back and talked to me, but they were only talking about breakfast and nothing about what had happened. • Sooner or later the health professionals will come, but it can take up to 45 min. It was very hard to get in contact with them. • It would have been nice if one of the nurses would have come up to me and said something about the incident, I have never experienced anything like this before. • It would have been nice if they had moved me to the hall, I did not feel there was any opening for this. • If I should have left the room, I didn´t know?- There was no one who said anything, or put any shielding up. I would have appreciated some help. • Who is worse than the other- Yes perhaps he was sick ill, but suddenly he was acutely ill - but possibly he was not more ill than me.

DISCUSSION

These findings demonstrated the importance of understanding how patients experience being a fellow patient to a patient who becomes critically ill, their perspectives on interacting with other patients, how the critically ill patient affected them, and their need for professional support.

Patient interaction

A Danish study argued that positive interaction between fellow patients was more common than negative (Larsen et al 2013), but the interaction was often ambiguous. The negative experiences of insecurity and devaluation in the Danish study were similar to the findings found in this study. Here the interactions between patients were ambiguous and the negative experiences were interconnected to the positive experiences and the interaction was linked to the strength of the fellow patient. The study argued that the strength was connected to patients' ability to withdraw themselves from the interaction (Larsen et al 2013). Fellow patients felt responsible for the critically ill patient and often did not feel they could leave the room, which often meant they began to reflect on their own illness and situation. This could be connected to a feeling of being forced into the acute situation and not have the possibility to withdraw themselves (Larsen et al 2013). This study pinpointed that patients felt a natural obligation to try to help the critically ill patient. The urge to care for others is fundamental to most humans, regardless of own illness, and is a basic condition (Birklund and Larsen 2013). Here the study presents an understanding of the emotional effect on the fellow patient; the stress and the anxiousness followed by attending an acute and critical situation with a very ill patient.

Anxiety

Fellow patients tried to cope with the situation by ignoring the severity of the critically ill patient. They felt stressed or left with a feeling of not being able to separate themselves from the incident. A previous study on fellow patients' anxiety stated that sharing a room with a surgical patient, well over his own operation, seemed calming and reassuring (Kulik and Mahler 1987). This study showed that almost all the fellow patients had a negative reaction towards the critically ill patient, regardless of the patients' prior status. These differences could be a result of patients sharing rooms not being equally ill or due to the fact that the situation changed so rapidly. At the same time it was important to remember that even if the fellow patients were less dependent in the situation, they were still ill and some in a critical state. Many were already balancing between emotions, and trying not to be overwhelmed by possible worst-case-scenarios. They needed hope and a feeling of control. A study on patients' coping strategies going through a gastric diagnosis found four coping patterns: 1) rational awaiting patterns where the focus was kept on facts; 2) denial, overlooking signs of danger; 3) painful control where they tried to avoid imagining; and 4) acceptance, where the patient openly seeks information (Giske and Gjengedal 2007). In this study there were similarities to these patients in their coping strategies. Often fellow patients tried to accept the situation or denied it if the outcome of the critically ill patient was severe. They were already balancing different emotions and being a fellow patient to a critically ill patient only made them more anxious. Regardless of which coping strategy they used many of them felt stressed or overwhelmed by the situation.

Professional support

A study on patients' experiences of self-care argued that patients need support to make sense and adapt to a new situation and they use health professionals, families and fellow patients to obtain this support (Kidd et al 2008). To prepare themselves for what was in store or needed to be faced, patients often used fellow patients to preserve their identity (Kidd et al 2008).The participants were fellow patients to critically ill patients who may have caused the participants to feel they could not use them for support, but instead the presence of the acutely ill patient had a negative effect on them. The room situation or atmosphere changed when the other patient in the room became critically ill, and the fellow patient and the acutely ill patient were no longer equal in their path, which may be the reason why the fellow patient was left feeling more anxious (Kidd et al 2008).

This anxiety often left the fellow patients with a need to talk about the incident with the health professionals but often their request for help was not met. This support by talking about the incident had such an importance for the fellow patients, that health professionals should not ignore it.

Strengths and limitations

The method used was aiming to uncovering themes, patterns, concepts, insights, and understandings (Malterud 2001). Interviews were the only method and it could be argued, that if we also had included systematic observations of fellow patients, it would have provided a deeper understanding of their experiences. Furthermore, the study took place in only one setting, so it is likely that all possible angles of fellow patients' experiences were not covered. However, the study aimed for descriptions of patients' experiences of being a fellow patient to patients who become critically ill and by including 15 patients and making the analysis process as open and specific, the data found in this study were sufficient to hypothesize three different themes (Delmar 2010).

CONCLUSION

Understanding the experiences and feelings of a fellow patient to an acute and critically ill patient is clinically important for health professionals. The findings highlight the values of the different emotions and feelings a fellow patient goes through and the impact it has on their situation, often leading to anxiety, a feeling of being forced into a patient interaction, and the lack of professional support they felt was needed. Health professionals should play a central role in supporting the fellow patients. Health professionals can use these results, in forming their understanding of the fellow patients and tailoring their practice for more individual support in the care of the patients.

RECOMMENDATIONS

Fellow patients, who had experienced a patient become critically ill, needed support from health professionals. The fellow patients felt anxious and forced into the situation. Health professionals therefore most use these experiences in considering care models that address the needed support, so they can tailor their practice to a more individualised care resulting in an increase in patient satisfaction. Consideration needs to be given to models, that address these patient's needs, including exploring the potential to offer single rooms to all patients or the ability to separate the critically ill patients from the less dependent patients in the hospitals. The nurse-patient ratio was not discussed in this paper, but this angle is an important issue that should be explored in future studies.

REFFERENCES

Armstrong, K., Young, J., Hayburn, A., Irish, B. and Nikoletti, S. 2003. Evaluating the impact of a new high dependency unit. *International Journal of Nursing Practice,* 9(5):285–293.

Birkelund, R. and Larsen, L.S. 2013. Patient-patient interaction-caring and sharing. *Scandinavian Journal of Caring Sciences,* 27(3):608-615.

Brooks, N. 1999. Patients' perspective of quality of care in a high-dependency unit. *Intensive and Critical Care Nursing,* 15(6):324–337.

Delmar, C. 2010. Generalizability as Recognition: Reflections on a Foundational Problem in Qualitative Research. *Qualitative Studies*, 1(2):115–128.

Finlay, L. 2009. Debating phenomenological research methods. *Phenomenology and Practice,* 3(1):6–25.

Fontana, A. and Frey, J.H. 1994. Interviewing the art of science. *Handbook of qualitative research. Sage Publications.* pp. 361-76.

Giske, T. and Gjengeda, I.E. 2007. Preparative waiting and coping theory with patients going through gastric diagnosis. *Journal of Advanced Nursing,* 57(1):87–94.

Graneheim, U.H. and Lundman, B. 2004. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today,* 24(2):105–112.

Kidd, L., Kearney, N., O'Carroll, R. and Hubbard, G. 2008. Experiences of self-care in patients with colorectal cancer: a longitudinal study. *Journal of Advanced Nursing,* 64(5):469–477.

Kulik, J.A., Moore, P.J. and Mahler, H.I.M. 1993. Stress and affiliation hospital roommate effects on preoperative anxiety and social interaction. *Health Psychology,* 12(2):118-124.

Kulik, J.A. and Mahler, H.I.M. 1987. Effect of preoperative roommate. *Health Psychology,* 6(6):525–543.

Larsen, L.S., Larsen, B.H. and Birkelund, R. 2013. An ambiguous relationship -a qualitative meta-synthesis of hospitalized somatic patients' experience of interaction with fellow patients. *Scandinavian Journal of Caring Sciences,* 27(3):495–505.

Larsen, L.S., Larsen, B.H. and Birkelund, R. 2013. A companionship between strangers - the hospital environment as a challenge in patient-patient interaction in oncology wards. *Journal of Advanced Nursing*, 70(2):395–404.

Malterud, K. 2001. Qualitative research: standards, challenges, and guidelines. *Lancet,* 358(9280):483-488.

Rukstele, C.D and Gagnon, M.M. 2013. Making strides in preventing ICU-acquired weakness: involving family in early progressive mobility. *Critical Care Nursing Quarterly,* 36(1):141–147.

Shenton, A.K. 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information,* 22:63–75.

Steiner, A., Walsh, B., Pickering, R.M., Wiles, R., Ward, J. and Brooking, J.I. 2001. Therapeutic nursing or unblocking beds. A randomised controlled trial of a post-acute intermediate care unit. *British Medical Journal,* 322(7284):453–460.

Male or Nurse what comes first? Challenges men face on their journey to nurse registration

AUTHORS

Dianne Juliff
Doctor of Philosophy Candidate, RN, RM, MSc(Nursing)
Student and Sessional Lecturer/Tutor, School of Nursing and Midwifery
The University of Notre Dame, Australia,
19 Mouat St, Fremantle, Western Australia.
Juliff_di@hotmail.com

Doctor Kylie Russell
Doctor of Philosophy, RN, MHlthSc(Education)
Acting Associate Dean, Post Graduate Coordinator, School of Nursing and Midwifery
The University of Notre Dame, Australia,
19 Mouat St, Fremantle, Western Australia.
kylie.russell@nd.edu.au

Associate Professor Caroline Bulsara
Doctor of Philosophy (Primary Health Care), BA (Hons) English and American, Grad Dip Education
Research Coordinator, School of Nursing and Midwifery
The University of Notre Dame, Australia,
19 Mouat St, Fremantle, Western Australia.
caroline.bulsara@nd.edu.au

KEYWORDS

male nurse, intimate touch, nurse image, marginalisation, role misconceptions

ABSTRACT

Objective –
This paper aims to provide an account of the first phase of a qualitative longitudinal study that explored the initial challenges men in nursing face to become registered. What is known is that men, a minority group within nursing, face the usual challenges of all new nurses in their quest to register as nurses. In addition, they have added pressures that hinder their quest due to being male.

Primary Argument
An Australian nursing shortage is looming due to nurses retiring from this female-dominate profession. Hence, the retention of men in nursing is an area requiring attention in order to support a sustainable workforce.

Subjects and Setting
Nine newly graduated male registered nurses participated. These nurses had recently commenced employment in the Western Australian metropolitan health region.

Findings
Individual face-to-face interviews produced the theme of role misconception with a major focus on male or nurse what comes first. This theme was derived from the categories of gender stereotyping and marginalisation.

Conclusion
This study suggests the need for a gender-neutral image when promoting nursing within and outside the professional environment. Furthermore, consideration for a professional title mutually accepted by both women and men in nursing, with the gender-neutral ‘nurse’ title preferred by the men in this study. Moreover to acknowledge that men in nursing will augment a technical savvy workforce that will complement emergent complex nursing practices, and enhance a more comprehensive Australian nursing workforce that will assist with meeting the health care needs of a diverse population.

INTRODUCTION

Within Australian health workforce management, an emphasis is placed on the retention of newly graduated registered nurses and the recruitment of males to generate a sustainable nursing workforce to replace those retiring and leaving the nursing profession (HWA 2013; AIHW 2012). However, there remains a consistent and a slow increase in men entering nursing due to nursing still being regarded as a female-predominant profession (Moore and Dienemann 2014). Of concern is that men employed in female-dominated workplaces leave at a greater rate than women (Bygren 2010). Furthermore, some areas are still resistant, from both staff and patients, to men in nursing where high intimate nursing care is required, (Inoue et al 2006). Gender-based role strain and issues around intimate touch nursing care have been suggested as a reason why men in nursing migrate more towards the technical, rapid assessment areas of emergency and intensive care (MacWilliams et al 2013; Harding et al 2008). Although, the reasons for the higher percentage of nurses who are male in these areas are not really known, “these areas may be perceived as more acceptable or masculine” and have “a preference for male employee in these areas” (HWA 2013, p15). Men who enter nursing have usually ‘thought long and hard’ about their decision to undertake this career path and are aware of the nuances such as the female image and stereotyping in nursing (Moore and Dienemann 2014).

METHOD

The aim of this component of a qualitative longitudinal study was to explore initial challenges men in nursing face in the attainment of their registered nurse qualification. The study utilised a phenomenological approach in order to explore the lived experiences of the men. Personal perspectives on their journey, via each participant’s own words, was gained through the use of face-to-face in-depth semi-structured interviews with open-ended questions. This interviewing style was employed to “facilitate rapport and empathy, and permit great flexibility…to produce rich and interesting data” (Smith et al 2009, p66).

Research question and sample

The research question that informed this first phase was “how has your journey as a male nurse been so far?” Nine newly qualified registered nurses who were male were recruited via purposeful sampling using snowballing technique.

Ethics

This study was conducted in accordance with the National Health and Medical Research Council’s (2007) Australian code for the responsible conduct of research. Prior to commencement of the study, ethical approval was gained from the University of Notre Dame Australia, Human Research Ethics Committee.

Procedure

Once recruited, participants were invited to select a location for their interview to take place, along with the nominated time and day that suited individual participants. To protect the confidentially of those recruited they were referred to as participants or men in this study, and their data was de-identified. Verbal consent was gained prior to the commencement of each audio-recorded interview to confirm the prior written consent. The research question was asked to elicit their experience in a non-threatening manner. Probing questions were then used to explore more in-depth experiences they volunteered. The participants’ responses were audio-recorded by the first author. The interviews varied in length, lasting for approximately 45 minutes. After each interview, the first author transcribed verbatim the participants’ responses. The data analysis was concurrent with data collection and involved the coding of the transcripts through the comparison between codes and categories to produce the theme. The analysis process via the iterative stages fashioned the categories that revealed the theme of role misconception as a major challenge they faced.

Trustworthiness

Trustworthiness was derived from Lincoln and Guba's (1985) credibility, dependability, confirmability and transferability criteria. This was met by the use of member checks for accuracy of transcription; peer assessments of interview transcripts, data process and analysis; direct participant quotes to support findings; and an audit trail evidence of the analytic decisions through the use of the researcher's diary (Houghton et al 2013).

FINDINGS

When the men in this study were asked, "how has your journey as a male nurse been so far?" the majority of them responded by indicating that they had enjoyed the study and learning aspect of their journey. Comments included "*loved the whole experience of nursing so far*", "*loved the study and clinical practice*" and "*the whole identity of being a nurse*". Although two felt their nursing education was female orientated, and at times this gender orientation was off putting, thereby leading to the identification of a key theme of role misconception.

Role misconception was extracted from the issues of gender stereotyping and marginalisation that the participants experienced on their journey to registration. Gender stereotyping within the health setting for most of the men in this study was being mistaken for a medical student and even a doctor. Furthermore, some of them verbalised that often patients were surprised that they were doing nursing, comments included "*what's a guy doing nursing*", "*didn't you want to be a doctor?*" Another participant stated, "*I think society has a skewed view of what nurses do and how males fit into the nurse role*".

A common theme emerged that participants did not want to be seen as unique or different. All the participants respected and supported the title of nurse. Of note, they felt that the image of nurses was female fixated, with two of them vocalising their disdain for the title of 'sister'. One of the men narrated "*I wasn't expecting to be so identifiable as a male nurse*". The major issue for most of the men was centred more on being called a male nurse. Three of the men revealed that on occasions they have stated, "*I am not a male nurse, I am a nurse*", finding the male and female differential "distasteful and unnecessary". One declared he does not like the reference to 'how good it is seeing more males in nursing' and verbalised "*I am just a nurse*". Another retorted with "*being a nurse as opposed to being a male nurse at the end of the day we're all nurses and we all have to do the same job*". Other exemplars included a nursing academic referred to "*having a boy look*" when a student could not find a reference he needed; another with "*academics alluding to males not being able to express themselves when reflecting on how they feel with their experiences isn't right*".

A consequence of the stereotyping impact for some of the men in this study meant that when going out socially and asked what they do, many would give responses such as "*I work in health", "I'm a public servant*", leaving the enquirer to interpret what they actually do. Reason for their avoidance in providing their actual job title was due to previously experiencing the looks of surprise or being teased about their career choice or being asked about their sexual orientation. Similar comments like *"my friends outside nursing joked and teased me about nursing and that I might turn gay"* were also reported.

Marginalisation consisted of two main areas, the feeling of being the outsider within and when providing nursing care. The provision of nursing care covered both issues of intimate touch and patient allocation. The majority of the men in this study initially feel overwhelmed with feelings of being the 'outsider within'. Comments included *"initially coming into the large student group was daunting", "sometimes you feel a bit on the periphery".* Hence there was a gravitation towards self-formed male groups in an attempt to nullify the outsider within feeling. One of the men commented "*the boys tended to hang out a bit…I think because most were mature age… you just tend to relate a bit better and I guess it's the male thing also".* Another with *"it was the same in the practice environment where I would engage more easily with the males working on the ward who were of similar age and background".* However, two participants revealed that although of the same gender they had nothing really in common with the male groups and aligned more with those who had previously worked in the health field as they had.

The 'outsider within' from a practice environmental aspect was an expression some participants mentioned to highlight the feeling of being isolated, and a minority within nursing, with comments from female colleagues such as *"it's good you're standing up and being different from the norm"*. One participant expanded this with "*through my pracs* (clinical placements) *I felt like an outsider most of the time"*. Another participant shared an instance in a mother and baby unit where both the mothers and the female nursing staff questioned his presence. He stated *"felt a kind of hostility towards me for being a guy; this was actually hanging over me while I was there".*

Providing nursing care marginalisation related to intimate touch in varying degrees for the men in this study, with most of them just taking it as a given barrier in the career they had chosen. Most stated that as student nurses they were always supervised when performing intimate touch nursing care. So they felt it was not a real issue for them as yet. It was seen as more of an issue for the nurses who allocated patient loads with participant comments of "*coordinator will avoid assigning a guy to a specific patient*". However, they were aware of the potential for accusations of inappropriate behaviour and innuendoes of sexual deviance or homosexuality. Furthermore, acknowledged that intimate care by a nurse who is male can be an issue generally in instances when the patient is female, due to cultural beliefs and in gender sensitive ages such as the adolescent patient. Similar comments of "*she allowed me to do obs and medications but she didn't want me to doing the catheters and toileting and the more intimate stuff… I can see where she was coming from*" were elicited during the interviews. Two of the men stated that on occasions it happened in the reverse where a patient has a preference for a nurse who is male. One commented,

> "*when faced with age and gender issues I give the patient a choice. I don't get upset nor discouraged when the patient prefers care from a nurse who is female as at times the reverse has occurred where a patient has had the preference for a nurse who is male".*

This is not to say that male patient intimate touch was not as an issue for them, with some of men in this study concerned not to been seen as 'gay'. One of the men stated "*there's a little bit of stereotype, every now and then, a comment or someone asked me if I was gay…I think my wife would be disappointed with this suggestion".*

Intimate touch issues did not seem to be what enticed the men in this study to a more low touch technical area of nursing. They provided comments of,

> *"the intimate stuff is not an issue for wanting to go to emergency", "just love the excitement and the never knowing what is coming through the ED door*", *I loved my mental health prac…I really did think that's what scored it for me".*

Most of men in this study, as they entered the practice environment, gave their preferences toward mental health and the technical specialty areas such as critical care, operating theatres and emergency departments with comments such as *I'm always interested in the technical elements of nursing, the drips, all that stuff", "get to use my critical thinking in a pressured environment".* They believed these environments would constantly change and would challenge them, and resonated with *"can't wait to be challenged", "it's great having that theory and actually seeing it in practice", "in emergency it's triaging, critical thinking skills and prioritising… at the forefront…making a difference".*

Patient allocation marginalisation occurred when the participants were predominantly allocated male patients instead of female patients. Thus excluding them from gaining experience in nursing duties relevant to their learning needs at the time. One reported, “I kept being allocated menial tasks in a female ward’, and felt the opportunity for learning was not provided nor encouraged by a clinical nurse. He felt he was treated differently because he was a male student nurse. Another added that being both older and a male “have different expectation of you…you are the exact same level as fellow nursing students (they) assume you bring something different to the table that’s not necessarily the case”.

DISCUSSIONS

The gender orientation findings of this study add support to previous research where the male nurse’s role in care provision is often negated due to gender bias (Ierardi et al 2010; Duffin 2006), and the feminised nursing curriculum (Christensen and Knight 2014). The men in this study, similar to a recent study (Koch et al 2014), felt men in nursing were more acceptable these days. Although, they also agreed with others that barriers still exist (Stott 2007; O’Lynn 2004). These men lend weight to previous findings that gender discrimination and gender stereotypes still occurs within the nursing profession (Kouta and Kaite 2011). Most of them articulated with other studies in that nursing is still seen as a ‘woman’s job’ (Snyder 2011; Wingfield 2009). They also supported the notion that to improve society’s acceptance of men in nursing required the nursing profession to de-feminise by enhancement of the image of nurses who are male through portraying them in their caring roles (Colby 2012).

This study reinforced previous research where there was expressed surprise that men were doing nursing (Wingfield 2009). Furthermore it concurred with other studies that gender stereotypes are constructed by society and influenced by the media (Weaver et al. 2014; O’Brien et al 2008). Reported elsewhere (Rajacich et al 2013; Herakova 2012) and claimed by the men in this study, the male nurse title reinforced their minority status and add to the gender-bias and stereotyping, both within and outside nursing. Moreover, they reiterated the need for a gender-neutral title for men in nursing and concurred with previous studies that recommended ‘nurse’ as opposed to ‘male nurse’ be used (Rajacich et al 2013; LaRocco 2007).

Being teased about their career choice or being asked ‘if they are gay’ resonated with this stereotype as a unique conflict for men in nursing previously reported (Stott 2007). Furthermore, reluctance at revealing they were nurses when asked about what they do to avoid being viewed as feminine has been reported recently (Zamanzadeh et al 2013).

The finding related to feeling overwhelmed initially and of being the outsider within on entry into the female-dominant nursing profession has been reported elsewhere (Christensen and Knight 2014). The reported marginalisation of the outsider within and gravitation towards male groups due to being in a female-dominated profession is consistent with other studies (Christensen and Knight 2014, Stott 2007). Most of the men in this study supported strategies that promoted networking with other men in nursing (Moore and Dienemann 2014) and the presence of male role models in nursing education (Stott 2007).

They all agreed with previous studies that female intimate care provision nursing can lead to them being uncomfortable about fulfilling role obligations (MacWilliams et al 2013) and feeling vulnerable (Harding et al 2008). However, it was not seen as a major issue for them. Similar to a finding by Harding et al (2008) the men in this study respected the fact that patients have rights and were not perturbed when they were met with refusal of their care from patients. The ’not too been seen as gay’ theme was congruent with a previous study that revealed intimate touch in clinical practice in relation to both male and female patients is a concern for men in nursing (Harding et al 2008).

Although initially interested in the clinical setting, men often find themselves being drawn to more low-touch technical specialty areas (MacWilliams et al 2013). This was the case for the majority of men in this study as they entered the practice environment insomuch as their desire for technical specialty areas. Their desire to work in the emergency department was predominantly due to an inter-professional team environment this area provided. Moreover, they dispelled the assumption that intimate touch was also a reason for their decisions of careers in mental health or the more technical areas.

Patient allocation marginalisation by being treated differently during clinical placement has been reported previously (Wingfield 2009; Keogh and O'Lynn 2007). Some of the participants supported previous research in relation to the limiting of their full participation in some nursing specialty areas (Evans 2004), and of feeling isolated in clinical practice at times in the female-dominant workplace (Wilson 2005). Another participant added that being both older and a male he was given more responsibility and inclusiveness in complex care than others on clinical practice at the same student level. This finding concurs with a recent study (Koch et al 2014) where staff delegated more responsibility to older students and treated them as qualified nurses.

LIMITATIONS

Inherent limitations were the qualitative nature of this study. It does not meet the underlying principle of replication nor generalisability due to the small sample size of the voluntary participants. However, it does provide an insight into the dialogue between the first author and the study participants in relation to their lived experience in their journey to qualification as registered nurses.

CONCLUSION

What this study adds reinforces the concerns of men entering the nursing profession. As they journey towards nurse registration, concerns are commonplace in relation to their professional identity, gender stereotyping and marginalisation that has been reported over the last two decades and still remains today. The men in this study emphasised that the image of a nurse, from within and outside the nursing profession, requires attention to enhance a more cultural and societal normalisation of nursing as a gender-neutral profession. Moreover, supporting the belief that a gender-neutral nurse image will encourage more men into nursing.

RECOMMENDATONS

Retention of men in nursing will assist in meeting the increasing health service demands as the population ages. The study's findings may foster discussions on ways to improve their journey in the quest to obtain registered nurse qualification. Improvement recommendations include:

- Nurse educators and nursing curriculum developers' enhancement and promotion of a gender-neutral stance in nursing practice that reduces men in nursing being seen as unique.
- Nursing curriculum to include effectively protective strategies for nurse-patient relationships in relation to touch. Furthermore to include this education for both male and female nursing students due to increased population diversity requiring patient centered cultural sensitive nursing care provisions.
- Consideration for a professional title that is mutually accepted by both women and men in nursing that may lead to reducing men as a gender minority.
- A model of inclusivity with the establishment of male support groups to aid in a more seamless transition of men into the nursing profession.
- Consideration in the nursing faculty gender mix to expose both male and female nursing students to male faculty members, supporting the "importance of regular male role model contact" (Stott 2007, p330). Thus to demonstrate how men apply their nursing knowledge and skills to the art of nursing, especially in complementing the complex technical nursing practices that are emergent.

All of the above is recommended, ultimately to increase the recruitment and retention rates of men in nursing. Thus to enhance a gender neutral Australian nursing workforce that will assist with meeting the health care needs of the rapidly growing diverse population.

REFERENCES

Australian Institute of Health and Welfare (AIHW). 2012. Nursing and midwifery workforce 2011. National health workforce series no. 2. Cat. No. HWL 48.Canberra: AIHW. http://www.aihw.gov.au/WorkArea/Download Asset.aspx%3Fid%3D60129545314 (accessed 20.12.15).

Bygren, M. 2010. The gender composition of workplaces and men's and women's Turnover. *European Sociological Review,* 26(2):193-202.

Christensen, M. and Knight, J. 2014. 'Nursing is no place for men - A thematic analysis of male nursing students experiences of undergraduate nursing education. *Journal of Nursing Education and Practice,* 4(12):95-104.

Colby, N. 2012. Caring from the male perspective: A gender neutral concept. *International Journal for Human Caring,* 16(4):36-41.

Duffin, C. 2006. Lack of training in intimate care adds to male nurses' isolation. *Nursing Standard*, 20(52):10.

Evans, J. 2004. Bodies Matter: Men, Masculinity, and the Gendered Division of Labour in Nursing. *Journal of Occupational Science,* 11(1):14-22.

Harding, T., North, N., and Perkins, R. 2008. Sexualizing men's touch: male nurses and the use of intimate touch in clinical practice. *Research & Theory for Nursing Practice,* 22(2):88-102.

Health Workforce Australia (HWA). 2013. *Australia's Health Workforce series – Nurses in Focus.* Health Workforce Australia: Adelaide. http://www.hwa.gov.au/sites/uploads/Nurses-in-Focus-FINAL.pdf (accessed 10.02.16).

Herakova, L. 2012. Nursing masculinity: Male nurses' experiences through a co-cultural lens. *Howard Journal of Communications,* 23(4):332-350.

Houghton, C., Casey, D., Shaw, D. and Murphy, K. 2013. Rigour in qualitative case-study research. *Nurse Researcher,* 20(4):12-17.

Ierardi, J.A., Fitzgerald, D.A. and Holland, D.T. 2010. Exploring male students' educational

experiences in an associate degree nursing program. *The Journal of Nursing Education,* 49(4):215-218.

Inoue, M., Chapman, R. and Wynaden, D. 2006. Male nurses' experiences of providing intimate care for women clients. *Journal of Advanced Nursing,* 55(5):559-567.

Keogh, B. and O'Lynn, C. 2007. Male Nurses' Experiences of Gender Barriers: Irish and American Perspectives. *Nurse Educator,* 32(6):256-259.

Koch, J., Everett, B., Phillips, J. and Davidson, P.M. 2014. Diversity characteristics and the experiences of nursing students during clinical placements: A qualitative study of student, faculty and supervisors' views. *Contemporary Nurse,* 49(1):15-26.

Kouta, C. and Kaite, C.P. 2011. Gender Discrimination and Nursing: Literature Review. *Journal of Professional Nursing,* 27(1):59-63.

LaRocco, S. 2007. A Grounded Theory Study of Socializing Men into Nursing. *The Journal of Men's Studies,* 15(2):120-129.

Lincoln, Y.S. and Guba, E.G. 1985. *Naturalistic inquiry*. Sage Publications: Beverly Hills, California.

MacWilliams, B.R., Schmidt, B. and Bleich, M.R. 2013. Men in nursing. *The American Journal of Nursing,* 113(1):38-44.

Moore, G.A. and Dienemann, J.A. 2014. Job satisfaction and career development of men in nursing. *Journal of Nursing Education and Practice,* 4(3):86-93.

National Health and Medical Research Council (NHMRC). 2007. *Australian code for the responsible conduct of research*. Canberra, ACT: Australian Government. http://www.nhmrc.gov.au/index.htm (accessed 20.12.15).

O'Brien, F., Mooney, M. and Glacken, M. 2008. Impressions of nursing before exposure to the field. Journal of Clinical Nursing, 17(14):1843-1850.

O'Lynn, C.E. 2004. Gender-based barriers for male students in nursing education programs:

Prevalence and perceived importance. Journal of Nursing Education, 43(5):229-236.

Rajacich, D., Kane, D., Williston, C. and Cameron, S. 2013. If They Do Call You a Nurse, It Is Always a Male Nurse: Experiences of Men in the Nursing Profession. Nursing Forum, 48(1):71-80.

Stott, A. 2007. Exploring factors affecting attrition of male students from an undergraduate nursing course: A qualitative study. Nurse Education Today, 27(4):325-332.

Smith, J.A., Larkin, M., & Flowers, P. (2009). *Interpretative phenomenological analysis: Theory, method and research.* London: SAGE.

Snyder, K.A. 2011. Insider knowledge and male nurses: How men become registered nurses. *Research in Society and Health Care,* 29:21-41

Weaver, R., Ferguson, C., Wilbourn, M. and Salamonson, Y. 2014. Men in nursing on television: exposing and reinforcing stereotypes. *Journal of Advanced Nursing,* 70(4):833-842.

Wilson, G. 2005. The experience of males entering nursing: a phenomenological analysis of professionally enhancing factors and barriers. *Contemporary Nurse,* 20(2):221-233.

Wingfield, A.H. 2009. Racilizing the glass escalator: Reconsidering Men's Experiences with Women's Work. *Gender and Society,* 23(1):5-26.

Zamanzadeh, V., Azadi, A., Valizadeh, L., Keogh, B., Monadi, M. and. Negarandeh, R. 2013. Choosing and remaining in nursing: Iranian male nurses' perspectives. *Contemporary Nurse,* 45(2):220-227.

Exploring infant deformational or positional plagiocephaly prevention and management by Maternal Child Health Nurses and Paediatric Physiotherapists

AUTHORS

Elizabeth N. Williams
MPhysio, PhD Candidate
Department of Medicine (Royal Melbourne Hospital)
The University of Melbourne
Parkville, Victoria, Australia
e.williams@unimelb.edu.au

Professor Mary P. Galea PhD
Professorial Fellow
Department of Medicine (Royal Melbourne Hospital)
The University of Melbourne
Parkville, Victoria, Australia
m.galea@unimelb.edu.au

Acknowledgements: We gratefully acknowledge the support from the Victorian Government Department of Education and Early Childhood Development, Maternal and Child Health Nurses in Victoria and Physiotherapists at the Royal Children's Hospital Melbourne and in private practice.

Funding: Elizabeth Williams is supported by an NHMRC Australian Postgraduate Award.

KEY WORDS

Plagiocephaly, infant, maternal child health nurse, paediatric physiotherapist

ABSTRACT

Objectives

To explore Maternal Child Health (MCH) nurses' and Paediatric Physiotherapists' (Physiotherapists) experience with infant deformational or positional plagiocephaly (plagiocephaly).

Design

Cross-sectional online survey.

Setting

Community health setting in Victoria, Australia.

Subjects

MCH nurses and Paediatric Physiotherapists in Victoria were invited to participate.

Main outcome measures

Survey results were collated and analysed descriptively.

Results

Surveys were completed by 183/961(19%) MCH nurses and a sample of 16 Physiotherapists, from a cross section of metropolitan (62%), regional (18%) and rural/remote (24%) Victoria. All MCH nurses and Physiotherapists reported seeing infants with plagiocephaly in the previous 12 months. Responses indicated MCH nurses saw between 11-50 infants with plagiocephaly (n=110). These were first diagnosed by MCH nurses at one to three months. Infants first presented to Physiotherapists on average at four to six months. All MCH nurses and Physiotherapists implemented prevention strategies and both groups thought it was effective subject to parents' implementing the advice. Strategies for prevention and management of plagiocephaly included early prone play (tummy-time) and counter positioning. Physiotherapists also included gross motor exercises, stretches if torticollis was present and, if appropriate, referral for helmet therapy. Referrals of infants with plagiocephaly by MCH nurses were made to Physiotherapists, General Practitioners, Chiropractors and Osteopaths.

Conclusions

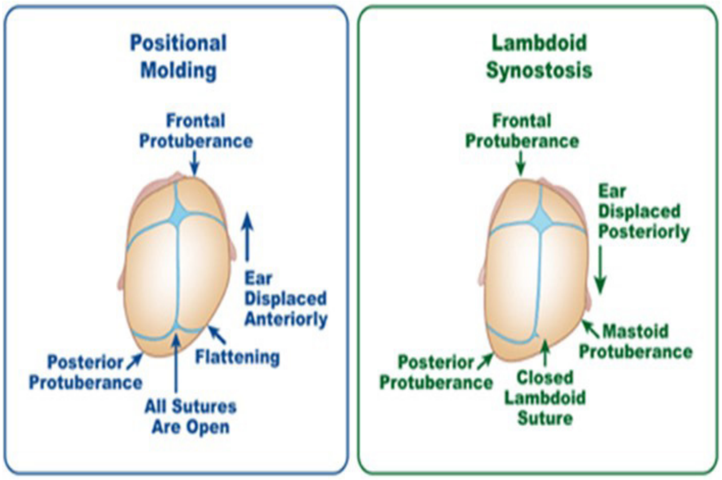
All MCH nurses and Physiotherapist respondents see infants with plagiocephaly, MCH nurses earlier than Physiotherapists. The effectiveness of plagiocephaly prevention advice can be called into question because of the high numbers of infants presenting and subsequent referrals to different health professionals. Recommendations from respondents included a review of past initiatives including extensive education for Maternal Child Health Nurses, Pamphlets in their Home visiting pack and video for demonstration at first time mothers group and the provision of clearer early prevention advice in the Government Key Ages and Stages (KAS) Framework for MCH nurses.

INTRODUCTION

The term plagiocephaly is nonspecific and used 'to denote an asymmetrical head shape' (Inverso et al 2015, p348). In this report plagiocephaly is referring to non-synostotic, positional, or deformational plagiocephaly, colloquially, a flat head. Differential diagnosis between plagiocephaly and posterior craniosynostosis (premature closure of cranial suture) is critical (Kluba2013 et al 2014; Saeed et al 2008; Kabbani and Raghuveer 2004). In true lambdoid craniosynostosis, the ear on the affected side is displaced posteriorly. In positional or deformational plagiocephaly the ear is displaced anteriorly and the frontal protuberance is ipsilateral (Kabbani and Raghuveer 2004) (figure 1).

Figure 1: Positional or deformational plagiocephaly (left) and lambdoid craniosynostosis (right)

(https://www.cincinnatichildrens.org/health/c/craniosynostosis/).



Plagiocephaly is an unexpected outcome of the successful strategy to prevent Sudden Infant Death Syndrome (SIDS) which was endorsed by the American Academy of Pediatrics (AAP) introduced in 1992. It recommends that babies sleep in supine, the 'Back to Sleep' campaign (AAP 2005; 1992). Concurrently, the incidence of plagiocephaly has risen from 5% in the early 1990s to an estimated 46.6% in 7 to 12 week old infants in 2013 (Mawji et al 2013; Kane et al 1996). Research attention is now being directed to the financial cost of management (Inverso et al 2015) as well as to plagiocephaly prevention (Aarnivala et al 2015; Cavalier et al 2011).

The 'Back to Sleep' campaign has saved lives, and there is no reason to question it. However, there is controversy about how plagiocephaly should be managed, the effectiveness of current guidelines such as helmet therapy (van Wijk et al 2014; Graham et al 2005), whether it causes developmental delay (Collett et al 2013; Darrah and Bartlett 2013) or is an indication of prior risk of delayed development (Branch et al 2015; Knight et al 2013; Shweikeh et al 2013; Bialocerkowski et al 2008; Biggs 2004; Persing et al 2003).

Recommendations for prevention and management of plagiocephaly include early introduction of counter-positioning of the infant's head and cot location, with supervised play in prone or 'tummy-time' when the infant is awake, adding physiotherapy referral if there torticollis (Mawji et al 2013; Saeed et al 2008; Persing et al 2003; Davis et al 1998).

While both the nursing (Flannery et al 2012; Looman and Flannery 2012;) and physiotherapy (Kenndey et al 2009; Darrah and Bartlett 2013) professions have expressed concern about the high incidence of plagiocephaly and its effect on motor development, there is no published information about the experience of MCH nurses and physiotherapists with infant plagiocephaly in their clinical practice.

The aim of this study was to survey Victorian MCH nurses and Physiotherapists to explore:

- their experience with plagiocephaly;
- plagiocephaly prevention strategies used; and
- how they managed plagiocephaly.

METHOD

Setting

The Maternal and Child Health Service in Victoria is a free service which supports a child's health and development from birth until school age. The service is funded by local and state governments and all parents are eligible to attend with their infant. MCH nurses are registered nurses with midwifery qualifications and postgraduate training in maternal and child health nursing (Kruske and Grant 2012). Physiotherapists for this study were registered health professionals who specialise in paediatrics (working with infants and children less than 18 years of age) and form a small percentage of the physiotherapy profession. Physiotherapists in this speciality area work in the tertiary health sector such as the Royal Children's Hospital, in community health and in private practice.

Participants

Participants were MCH nurses practising in MCH centres or other primary care settings, and physiotherapists from the Plagiocephaly Clinic at the Royal Children's Hospital (RCH) Melbourne, community health or in private practice.

Data source

A survey instrument with both fixed choice and open ended questions was developed in collaboration with key stakeholders in MCH and RCH. The 24 item survey was divided into three sections: 1) background of health professionals and experience with plagiocephaly, 2) prevention of plagiocephaly and 3) management of plagiocephaly. Some questions allowed open-ended responses.

Procedure

The survey was hosted online from 1 December 2014 to 1 February 2015. An emailed invitation to participate and providing an online survey link was sent to local government representatives, who then emailed MCH co-ordinators. Co-ordinators forwarded this email to MCH nurses. The email to physiotherapists was sent to the Director of Physiotherapy at RCH and to publicly available private physiotherapy websites from where it was forwarded to clinicians.

Ethics approvals

This project was approved by the University of Melbourne Human Research Ethics Committee (No: 1442919.1) and by the Victorian Government Department of Early Childhood Development (No: 2014_002570).

Data analysis

Data from fixed choice questions were analysed using descriptive statistics. Responses to open-ended questions and comments were sorted into themes, which were summarised. Concept maps were generated using Mindjet Mind Manager Software (Mindjet 2016) to illustrate the relative frequencies of responses within themes (figures 2-4). The sizes of the 'bubble' and font reflect the number of responses representing each theme relative to the number of responses in other themes.

RESULTS

Professions surveyed

One hundred and eighty-seven of 961 MCH nurses responded to the survey (19% of 174 fulltime and 787 part-time MCH nurses, with 26 reporting midwifery qualifications). Four surveys were incomplete, so the final total was 183 responses from MCH nurses. Sixteen physiotherapist respondents completed surveys, 15 were paediatric physiotherapists and one was a general physiotherapist. At the time of the survey the total number of physiotherapists in paediatric practice was not known, but a sample of 16 were invited to participate and 100% responded.

Geographical distribution

The overall geographical spread was metropolitan 62%, regional 18% and rural/remote 24%. There were proportionately fewer MCH nurses than physiotherapists from metropolitan areas, a similar proportion of MCH nurses and physiotherapists working in regional areas, but more MCH nurses employed in rural or remote areas.

Workplace and experience of respondents

Results are summarised in table 1. MCH nurses worked predominantly in Maternal Child Health Centres, but they also worked in other settings such as emergency or midwifery departments. Half reported that they had higher degrees, including Masters in Nursing or Child and Family Health or Postgraduate Diplomas, and also worked as lactation consultants.

MCH nurses mostly saw infants aged 0-1 year and were experienced, with many working with infants for over 10 years. Only three respondents had worked less than one year and eight had been working 25 - >40 years. The majority of MCH nurses had each seen over 50 infants in the previous year, others responded that they had seen ‘hundreds’ and ‘250-350 approximately’ and ‘50 babies per week for 11 months of the year’.

Physiotherapists worked in the hospital outpatient setting, private practice or early childhood or community services (table 1). They saw infants and children aged 1-10 years, but also youth 11-18 years. Twelve had been in practice with infants for over 10 years and had seen 10-25 infants in the previous year, five had seen over 50 and one had seen over 350 in a specialist clinic.

Table 1: Workplace, experience and number of infants seen in previous year

	Workplace				**Experience (years)**		**Age of infants seen (years)**			**No. of infants seen in previous year**			
	MCHC	***CC***	***OP***	***PP***	***1-5***	***>10***	***0-1***	***1-10***	***11-18***	***<5***	***10-25***	***26-50***	***>50***
MCHN	182	12	0	0	24	126	140	96	1	0	4	17	149
PT	1	6	12	7	4	12	11	13	8	2	12	1	6

MCHN=Maternal Child Health nurse, PT=Physiotherapist, MCHC = MCH Centre CC=Community Centre, OP=Outpatients, PP=Private Practice

Age and number of infants with plagiocephaly seen in previous year

All MCH nurses and physiotherapists reported that infants with plagiocephaly attended their clinic and results are summarised in table 2.

MCH nurses reported seeing an average of 11-25 infants with plagiocephaly in a year, many responding 26-50 infants (n=47) and over 50 in 28 responses. The average age at which infants were first seen by MCH nurses was 5 – 8 weeks (one to two months).

Physiotherapists saw fewer infants with plagiocephaly than MCH nurses, although one reported reviewing over 350 infants in the previous year in a specialist clinic. The age at which infants first presented to physiotherapists with plagiocephaly averaged 3 - 6 months.

Table 2: Plagiocephaly: numbers seen in previous year and age of first attendance at clinic

	No of infants seen with plagiocephaly					Age of infants when first seen with plagiocephaly					
	<4	*5-10*	*11-25*	*26-50*	*>50*	*0-4w*	*5-8w*	*9-12w*	*4-6m*	*7-10m*	*>11m*
MCHN	0	34	63	47	28	99	127	109	77	41	29
PT	5	3	5	0	2	2	8	13	13	6	1

MCHN=Maternal Child Health nurse, PT=Physiotherapist, w=weeks, m=months

Prevention strategies and effectiveness

The majority of MCH nurses implemented prevention strategies with only three stating they did not. The results are summarised in table 3. Strategies used in practice were parent education, positioning including 'tummy-time', information brochure or video, with some recommending equipment such as a modified pillow. MCH nurses reported using early tummy time and counter positioning. The majority of MCH nurses believed that the prevention strategies were effective.

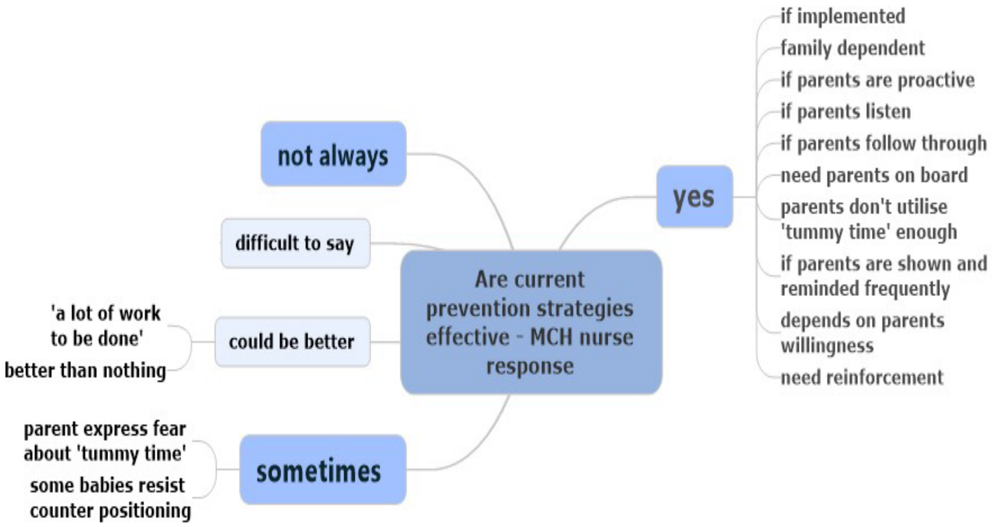
Table 3: Prevention strategies and responses to open-ended

	Prevention strategies implemented			Type of strategy	Effectiveness of strategies	
	Yes	*No*	*PE*	*Positioning with TT'*	*Yes*	*No*
MCHN	169	0	155	180	121	13
PT	15	0	13	14	9	2

MCHN=Maternal Child Health nurse, PT=Physiotherapist, PE=Parent Education, TT=Tummy-time

Themes from responses to the open-ended question "Do you believe current prevention strategies are effective?" are summarised in figure 2. It is noted that many of the 'Yes' responses were conditional on parents willingness to implement advice.

Figure 2: Themes emerging from MCH nurse comments (n=46) to 'Do you believe current prevention strategies are effective?' Font size indicates frequency of response.



All Physiotherapists implemented prevention strategies with one responding that prevention of plagiocephaly was discussed even if the infant was being seen for other issues. Responses by Physiotherapists also believed that the parents' role was key, e.g. *'if implemented - many parents I see are hesitant to position babies in prone regularly'* and *'parents still express a lot of fear about tummy time'*.

Interventions recommended for plagiocephaly

The common interventions recommended by both MCH nurses and physiotherapists for the infant with plagiocephaly were counter positioning, 'tummy time', and referral to other health professionals. Recommendations for intervention are summarised in table 4.

Table 4: Interventions recommended for plagiocephaly, and evidence for them

	Interventions recommended			Number of infants referred			Evidence for intervention		
	Positioning	*TT*	*Referral on*	*<5*	*5-10*	*>10*	*Yes*	*No*	*Not sure*
MCHN	174	182	160	77	47	53	117	8	51
PT	16	16	5	10	2	1	5	4	5

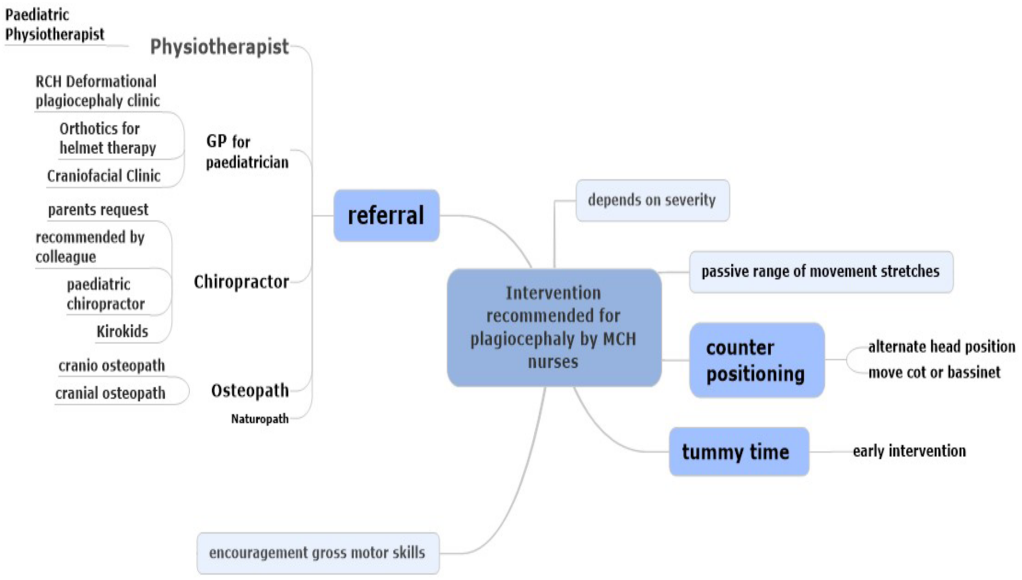
MCHN=Maternal Child Health nurse, PT=Physiotherapist, TT=Tummy-time

MCH nurses indicated referrals for plagiocephaly management were to physiotherapists, general practitioner (for referral to Royal Children's Hospital or a paediatrician), chiropractor or osteopath (figure 3).

Most MCH nurses believed the interventions were evidence-based, but 51 were not sure and seven doubted that the interventions were evidence-based.

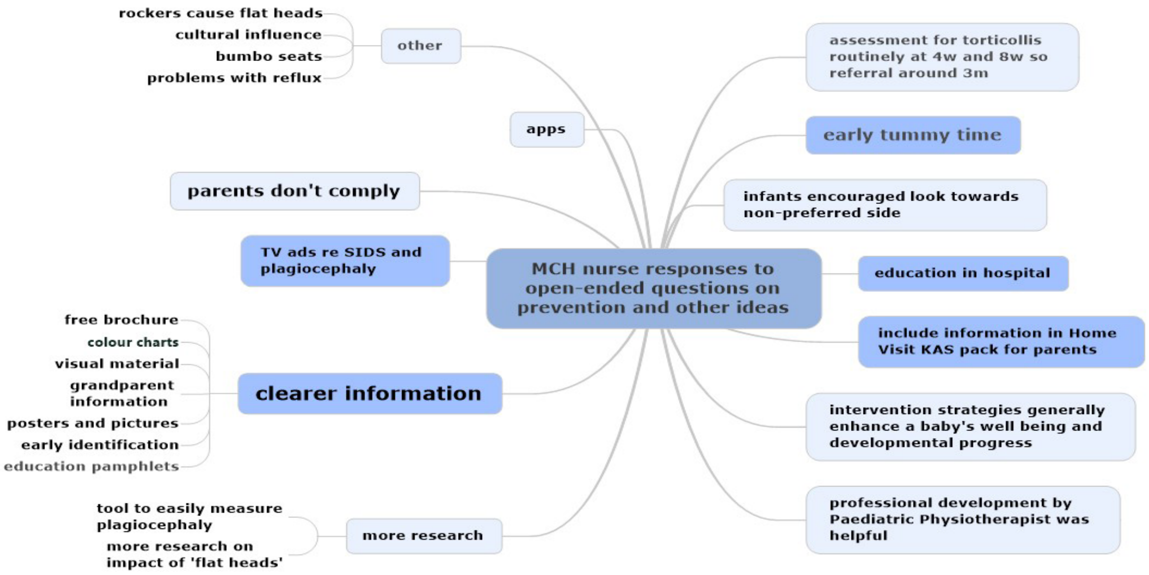
Physiotherapists reported using counter positioning and tummy time, included gross motor exercises, stretches if torticollis was present with ten referring to orthotists for helmet therapy or to community physiotherapists. In response to the question as to whether there was an evidence base for interventions, seven physiotherapists responded 'yes', with one providing a reference, four responded 'no', and five 'not sure'. The reference cited was Flannery et al (2012).

Figure 3: Themes emerging from MCH nurse responses (n=122) to 'What intervention do you recommend for plagiocephaly?' Font size indicates frequency of response



Responses requesting ideas about plagiocephaly that could be useful for parents and health professionals
Additional responses were elicited as to what information could be provided which would be useful to parents or health professionals. Forty-two MCH nurses responded to this question and the themes for these responses are illustrated in figure 4. The most common themes were: clearer information, early tummy time, education in hospital and TV advertisements on SIDS and plagiocephaly.

Figure 4: Themes emerging from MCH nurse responses to 'Do you have any additional comments you would like to share about ideas you think would be useful to parents or health professionals?' KAS = MCH nurse Key Ages and Stages Framework. Font size indicates frequency of response.



DISCUSSION

The results of this survey suggest that plagiocephaly is a common occurrence in Victorian infants and supports other studies reporting a similar increase in incidence in other countries (Branch et al 2015; Mawji et al 2013). Responses indicated that prone play or 'tummy time' and counter positioning are accepted as both prevention and management strategies. Plagiocephaly is frequently observed in infants by both MCH nurses and physiotherapists, although the physiotherapists see infants with plagiocephaly at a later age than MCH nurses. Many infants are referred for further management by MCH nurses although concern was expressed about lack of access to physiotherapists, delays in appointments.

The reported effectiveness of current prevention and management strategies can be called into question by the large number of young infants with plagiocephaly referred for further management by both MCH nurses and physiotherapists. Respondents suggested the reasons that current prevention strategies are not effective are parental non-compliance with advice or reluctance to do tummy time.

Although many infants were referred to other health professionals by MCH nurses for management, there was inconsistency in referral patterns, with MCH nurses responding they referred to physiotherapists (80%), to general practitioners (GPs, 32%) for further referral to a paediatrician or RCH, and often at parents' request, to chiropractors (20%) and osteopaths (20%) (figure 2).

Physiotherapists referred infants with severe plagiocephaly to orthotists for helmet therapy. The management of plagiocephaly with helmet therapy is controversial. A randomised controlled trial of helmet therapy compared to conservative management concluded that there was equal effectiveness of helmet therapy and skull deformation following its natural course. Moreover, because of the high prevalence of side effects, and high costs associated with helmet therapy, the authors discouraged the use of a helmet as a standard treatment for healthy infants with moderate to severe skull deformation (van Wijlk et al 2014).

Referral to chiropractors or osteopaths is also controversial in the literature. Uncertainty was expressed by respondents about the appropriateness of referral of infants for chiropractic management and some referrals were made at the parent's request or if they had a regular chiropractor. A Cochrane Systematic Review (Brand et al 2005) concluded that manual therapy, chiropractic, and osteopathy should not be used in infants. The authors used the term 'Kinetic Imbalance due to Sub occipital Strain (KISS)' Syndrome in infants with positional preference, plagiocephaly, and colic. This syndrome is not recognised in the medical literature. .

Early intervention was universally recommended by respondents. This strategy has been confirmed by a recent randomised controlled trial in Finland, which showed that an early educational intervention in the maternity ward reduced the prevalence and severity of DP at three months (Aarnivala et al 2015).

Forty-two MCH nurses provided ideas that could be useful to parents and health professionals. They highlighted the need for clearer information for prevention and management of plagiocephaly. Suggested ideas were free brochures or pamphlets, more visual representation of ideas for tummy time, colour charts, easy to read information, TV advertisements and Apps. The MCH nurses reported that tummy time, if implemented, is an effective prevention measure. Counter positioning is important and infants need to be encouraged to look towards the non-preferred side. MCH nurses expressed the need for better professional development on plagiocephaly. Other suggestions included more research, a tool to easily measure the degree of plagiocephaly, and investigation of 'bumbo' seats and pillows. There is a clinical measure for plagiocephaly 'the Severity Assessment' (Ohman 2012), but this tool appears not to be widely known.

A randomised controlled trial for management of plagiocephaly comparing physiotherapy stretching exercises and use of bedding/pillow concluded that both resulted in improvement (Wilbrand et al 2013). It is important to note that the Sudden Infant Death Syndrome (SIDS) Foundation recommends that pillows, doonas, soft toys, cot bumpers or lambswools should not be used when preparing a baby's cot (SIDS and Kids 2016).

The responses to this survey confirm that the experience of plagiocephaly by MCH nurses and Physiotherapists in Victoria is similar to that documented in other countries and is sufficiently significant to warrant further investigation of the implementation of the advice on plagiocephaly prevention.

CONCLUSIONS

The MCH nurses and physiotherapists who responded to this survey routinely saw infants with plagiocephaly in their clinical practice, and expressed concern about the high number of these infants. The common themes among respondents regarding prevention and management of plagiocephaly were counter positioning and tummy time. However, respondents also expressed the need for clearer, illustrated prevention material, preferably delivered in the Victorian Government (2006) Key Ages and Stages (KAS) Framework at the first visit.

RECOMMENDATIONS

1. Review past initiatives in regard to plagiocephaly; including extensive education for Maternal Child Health Nurses, pamphlets in their home visiting pack and video for demonstration at first time mothers groups.

2. Clearer advice for early prevention and management of infant plagiocephaly is indicated. Since MCH nurses see infants at the earliest age, they are best placed to deliver clear advice if the busy maternity ward is not appropriate.

3. The KAS Framework (Victorian Government 2006) given to parents when they come home with a new baby should be revised, in consultation with the Department and MCH nurses, to include clear advice on prevention of infant plagiocephaly.

REFERENCES

AAP (American Academy of Pediatrics). 1992. Positioning and SIDS. Task force on infant positioning and Sudden Infant Death Syndrome (SIDS). *Pediatrics*, 89(6):1120-1126.

AAP (American Academy of Pediatrics). 2005. Task Force on Sudden Infant Death Syndrome. The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk. *Pediatrics,* 116:1.

Aarnivala, H., Vuollo, V., Harila, V., Heikkinen, T., Pirttiniemi, P. and Valkama, A.M. 2015. Preventing deformational plagiocephaly through parent guidance: a randomized, controlled trial. *European Journal of Pediatrics,* 174(9):1197-1208.

Bialocerkowski, A.E., Vladusic, S.L. and Wei Ng, C. 2008. Prevalence, risk factors, and natural history of positional plagiocephaly: a systematic review. *Developmental Medicine & Child Neurology,* 50(8):577-586.

Biggs, W.S. 2004. The 'Epidemic ' of Deformational Plagiocephaly and the American Academy of Pediatrics Response. *Journal of Prosthetics and Orthotics,* 16(4):S5-S8.

Branch, L.G., Kesty, K., Krebs, E., Wright, L., Leger, S. and David, L.R. 2015. Deformational Plagiocephaly and Craniosynostosis: Trends in Diagnosis and Treatment after the "Back to Sleep" Campaign. *Journal of Craniofacial Surgery*, 26(1):147-150.

Brand P.L., Engelbert R.H., Helders P.J. and Offringa, M. 2005. Systematic review of the effects of therapy in infants with the KISS-syndrome (kinetic imbalance due to suboccipital strain). *Netherlands Journal of Medicine,* 149(13):703-707.

Cavalier, A., Picot, M.C., Artiaga, C., Mazurier, E., Amilhau, M.O., Froye, E. and Picaud, J.C. 2011. Prevention of deformational plagiocephaly in neonates. *Early Human Development,* 87(8):537-543.

Collett, B., Gray, K., Starr, J., Heike, C., Cunningham, M. and Speltz, M. 2013. Development at age 36 months in children with deformational plagiocephaly. *Pediatrics*, 131:e109.

Darrah, J. and Bartlett, D. 2013. Infant rolling abilities – the same or different 20 years after the back to sleep campaign. *Early Human Development*, 89:311-314.

Davis, B.E., Moon, R.Y., Sachs, H.C. and Ottolini, M.C. 1998. Effects of sleep position on infant motor development. *Pediatrics,* 102(5):1135-1140.

Flannery, A.B., Looman, W.S. and Kemper, K. 2012. Evidence-based care of the child with deformational plagiocephaly, part II: management. *Journal of Pediatric Health Care,* 26(5):320-331.

Graham, J.M., Gomez, M., Halberg, A., Earl, D., Kreutzman, J.T., Cui, J. and Guo, X. 2005. Management of deformational plagiocephaly: repositioning versus orthotic therapy. *Journal of Pediatrics,* 146(2):258-262.

Inverso, G., Lappi, M.D., Flath-Sporn, S.J., Heald, R., Kim, D.C. and Meara, J.G. 2015. Increasing value in plagiocephaly care: a time-driven activity-based costing pilot study. *Annals of Plastic Surgery,* 74(6):672-676.

Kabbani, H. and Raghuveer, T.S. 2004. Craniosynostosis. *American Family Physician,* 69(12):2863-2870.

Kane, A., Mitchell, L. and Craven, K. 1996. Observations on a recent increase in plagiocephaly without synostosis. *Pediatrics*, 97:877-885.

Kennedy, E., Majnemer, A., Farmer, J.P., Barr, R.G. and Platt, R.W. 2009. Motor development of infants with positional plagiocephaly. *Physical & Occupational Therapy in Pediatrics,* 29(3):222-235.

Kluba, S., Lypke, J., Kraut, W., Krimmel, M., Haas-Lude, K. and Reinert, S. 2014. Preclinical pathways to treatment in infants with positional cranial deformity. *International Journal of Oral Maxillofacial Surgery,* 43(10):1171-1175.

Knight, S.J., Anderson, V.A., Meara, J.G. and DaCosta, A.C. 2013. Early Neurodevelopment in infants with plagiocephaly. *Journal of Craniofacial Surgery,* 24:1225-1228.

Kruske, S. and Grant, J. 2012. Educational preparation for maternal, child and family health nurses in Australia. *International Nursing Review*, 59(2):200-207.

Looman, W.S. and Flannery, A.B. 2012. Evidence-Based Care of the Child with Deformational Plagiocephaly, Part I: Assessment and Diagnosis. *Journal of Pediatric Health Care,* 26: 242-250.

Mawji, A., Robinson Vollman, A., Hatfield, J. and McNeil D.A. 2013. The Incidence of Positional Plagiocephaly: A Cohort Study. *Pediatrics,* 132:298-304.

Öhman, A. 2012. The inter-rater and intra-rater reliability of a modified 'severity scale for assessment of plagiocephaly' among physical therapists. *Physiotherapy Theory and Practice,* 28(5):402-406.

Persing, J., James, H., Swanson, J. and Kattwinkel, J. 2003. Prevention and management of positional skull deformities in infants. *Pediatrics,* 112(1):199-202.

Saeed, N.R., Wall, S.A. and Dhariwal, D.K. 2008 Management of positional plagiocephaly. *Archives of Disability in Childhood,* 93(1):82-84.

Shweikeh, F., Nuno, M., Danielpour, M., Krieger, M.D. and Drazin, D. 2013. Positional plagiocephaly: an analysis of the literature on the effectiveness of current guidelines. *Neurosurgery Focus,* 35(4):E1.

SIDs and Kids. 2016. http://www.sidsandkids.org/wp-content/uploads/SIDS066-N_SafeSleeping_MakingUpCot_A3web.pdf (accessed 09.03.16).

van Wijk, R.M., van Vlimmeren, L.A., Groothuis-Oudshoorn, C.G., Van der Ploeg, C.P., Ijzerman, M.J. and Boere-Boonekamp, M.M. 2014. Helmet therapy in infants with positional skull deformation: randomised controlled trial. *British Medical Journal,* 348:g2741.

Victorian Government. 2006. Maternal and Child Health Service: Key Ages and Stages Framework. http://www.education.vic.gov.au/Documents/childhood/professionals/health/mchkasframework.pdf Melbourne (accessed 07.03.16).

Wilbrand, J.F., Seidl, M., Wilbrand, M., Streckbein, P., Bottger, S., Pons-Kuehnemann, J. and Howaldt, H. P. 2013. A prospective randomized trial on preventative methods for positional head deformity: physiotherapy versus a positioning pillow. *Journal of Pediatrics,* 162(6):1216-1221.

March 2017 - May 2017
Volume 34 Issue 3

AJAN

australian journal of advanced nursing

An international peer reviewed journal of nursing research and practice

IN THIS ISSUE

RESEARCH PAPERS

SCHOLARLY PAPERS

34:3

THE AUSTRALIAN JOURNAL OF ADVANCED NURSING

The Australian Journal of Advanced Nursing aims to provide a vehicle for nurses to publish original research and scholarly papers about all areas of nursing. Papers will develop, enhance, or critique nursing knowledge and provide practitioners, scholars and administrators with well-tested debate.

The AJAN will:

- publish original research on all nursing topics
- publish original scholarly articles on all nursing topics
- process manuscripts efficiently
- encourage evidence-based practice with the aim of increasing the quality of nursing care
- provide an environment to help authors to develop their research and writing skills
- provide an environment for nurses to participate in peer review

ISSN 1447-4328

Indexing
The AJAN is indexed in the CINAHL (Cumulative Index to Nursing and Allied Health Literature) Database, Current Contents, International Nursing Index, UnCover, University Microfilms, British Nursing Index, Medline, Australasian Medical Index and TOC Premier.

PRODUCTION

Editor
Lee Thomas

Journal Administrator
Anne Willsher

Publisher and Editorial Office
Australian Nursing and Midwifery Federation
PO Box 4239
Kingston ACT, Australia 2604
tel +61 2 6232 6533
fax +61 2 6232 6610
email: ajan@anmf.org.au
http://www.ajan.com.au

AJAN
australian journal of advanced nursing

March 2017 - May 2017
Volume 34 Issue 3

CONTENTS

RESEARCH PAPERS

SCHOLARLY PAPERS

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: AUSTRALIA

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: INTERNATIONAL

Assessing the effectiveness of clinical education to reduce the frequency and recurrence of workplace violence

AUTHORS

Jillian Adams
PhD, MSc, BAppSc, RN
Staff Development Educator (Research), Royal Perth Hospital, Western Australia
adamsj@iinet.net.au

Alex Knowles
Dip MH
Staff Development Educator (Management of Aggression), Royal Perth Hospital, Western Australia
alex.knowles@health.wa.gov.au

Garry Irons
BN, RN
Staff Development Educator (Management of Aggression), Royal Perth Hospital, Western Australia
gary.irons@health.wa.gov.au

Alison Roddy
BSc, Cert OSH, RN
Staff Development Educator (Management of Aggression), Royal Perth Hospital, Western Australia
alison.roddy@health.wa.gov.au

John Ashworth
RN
Staff Development Nurse (Management of Aggression), Royal Perth Hospital, Western Australia
john.ashworth@health.wa.gov.au

KEY WORDS

Workplace violence, high risk for violence, pro-active management, clinical education

ABSTRACT

Objectives

This study assessed the effectiveness of clinical education to identify patients with a high risk for violence and to reduce the frequency of violent incidents.

Design

A before and after design with an education intervention.

Setting

Data were gathered from the direct care staff and from records of violent/aggressive incidents which occurred on two adult medical wards at a teaching hospital in Western Australia.

Subjects

Nurses, Assistants in Nursing and Patient Care Assistants working on the study wards participated in the education intervention (n=65) and completed a questionnaire before and after the education. Details of 48 violent/aggressive incidents perpetrated by 21 patients were examined.

Intervention

An education program addressed four key areas (assessment, planning, implementation [crisis], post incident). Case studies and in-patient scenarios provided context, immediacy and relevance, and 77% of the staff completed the program.

Main outcome measure

Knowledge, confidence and capability of direct care staff to prevent/manage violent/aggressive incidents were measured. Incident data measured the frequency and recurrence of violence/aggression, and if perpetrators met the high risk criteria.

Results

Post education, knowledge increased significantly (p=0.001, CI 0.256-0.542), the use of verbal de-escalation increased significantly (p=0.011, 1df) and the frequency and recurrence of incidents decreased. All perpetrators met criteria indicating a high risk for violence.

Conclusions

Education and coaching provided by clinical experts resulted in increased knowledge, greater use of verbal de-escalation and less incidents. However, more time/coaching is required to improve the perceived capability of clinical staff to manage these incidents.

INTRODUCTION

Workplace violence (WPV) is a worldwide problem (Gates et al 2011; Brennan 2010; Chapman et al 2009a; Peek-Asa et al 2009; Shields and Wilkins 2009, Luck et al 2007; Hegney et al 2006). It includes incidents that cause physical and psychological harm to employees from abuse, threats and assaults in circumstances related to their work. Worldwide, violence in healthcare is estimated to comprise a quarter of all WPV and is a major occupational hazard within health (Commission for Occupational Safety and Health 2010; World Health Organization 2002).

Violence and aggression cannot be completely removed from hospitals as there is potential for violence whenever people congregate (Mental Health Adult Program April 2010). As numerous strategies to reduce WPV had been implemented at an 850 bed adult teaching hospital in Western Australia, there was concern when a 12% increase in incidents occurred in 2011 and when 27 patients were involved in recurring WPV incidents in the first quarter of 2012. At this time generic training comprised an initial training day, followed by a 2.5 hour annual practical refresher with an e-learning module. Training aimed to maintain safety using primary, secondary and tertiary interventions; however, it was not ward/unit specific, was conducted away from clinical areas and consequently omitted feedback during real incidents.

It was thought that ward specific training may address these limitations by facilitating the transfer of knowledge to practice, developing skills identifying problems and implementing prevention strategies. Therefore, a study was designed to assess the effectiveness of a clinically based education program, with three objectives, to:

- assess the effectiveness of clinical education to enable staff to identify patients with high risk for violence;
- assess the influence of clinical education on the frequency of WPV; and
- determine if incidents by repeat perpetrators of violence were influenced by the education strategy.

METHODS

A before and after study was designed with an educational intervention. To assess knowledge, confidence and capability of staff related to managing violence and aggression, assessments of these attributes were taken before and after the education. In addition, six months retrospective incident data and six months prospective data were collected before and after the education intervention.

Sample

A convenience sample of direct care staff on two medical wards participated. They included Registered Nurses (RN) – 41 pre, 45 post; Enrolled Nurses (EN) 15 pre, 17 post; Assistants in Nursing (AIN) – 3 pre, 5 post and Patient Care Assistants (PCA) – 6 pre and post; to give a population of 65 pre and 73 post. All WPV incidents that occurred six months either side of the education intervention were included.

The Intervention

Four key areas (assessment, planning, implementation [crisis], post incident) formed the basis of the education. Hypothetical case studies were augmented by in-patient scenarios to provide context, immediacy and relevance. Education was presented daily during the staff overlap time (2-3pm) and for permanent night duty staff, aiming for 66% to complete the four key education areas and was conducted from 6 February to 13 May 2013.

Data Collection

Data were collected from two sources: 1) staff completed a self-administered questionnaire and 2) data related to violent/aggressive incidents were obtained from hospital records.

The staff questionnaire assessed knowledge with open questions, and confidence and perceived capability to prevent/manage workplace violence/aggression on a 1-5 Likert Scale. It was administered before and after the education to measure the effect of the education on these attributes. Envelopes containing the questionnaires and a return envelope were sent to staff members, and returned by internal mail to the researcher.

Retrospective and prospective data related to incidents of violence/aggression were obtained from hospital records. These included records of Code Black incidents, Staff Accident and Incident (SAIR) forms, Hazard forms and Clinical Incident Forms (CIF), with additional information obtained from the patient's notes. This information was collated on a data collection tool, which included long established indicators for a high risk of violence/aggression (Kling et al 2011; Drummond et al 1989). The purpose was to measure the frequency and characteristics of incidents before and after education to assess the effectiveness of the program. All incidents perpetrated by patients towards staff in the time frame on the study wards were included.

Analysis

Data from the staff questionnaires and the violent/aggressive incidents were managed in SPSS Statistics 20. Categorical data were presented as frequencies, proportions and percentages, and continuous data as means and median. Comparison of means, correlations, and odds ratios were computed, with the alpha set at *p=0.05.* Scores from specific summed Likert Scale questions (knowledge, confidence, capability) were calculated and logarithmic transformation performed prior to linear regression of these three scores.

Validity and Reliability

The education intervention was considered to be 'best-practice' as it was based on current research, therefore demonstrating content validity. Although not a validated tool, the staff questionnaire had content and face validity as it was designed specifically to evaluate the effectiveness of the education. This was pilot tested with a convenience sample of 23 nurses and three PCA's from non-study areas. Fifty eight percent were returned on the first and 52% on the second occasion, with reminder emails sent. Test re-test reliability was assessed using the combined scores for knowledge to give a Pearson's r = 0.986 and a combined score for the Likert Scale questions to give a Pearson's r = 0.96. Internal consistency was assessed with Cronbach's Alpha, with homogeneity demonstrated for the three questions relating to confidence (0.93) and two questions relating to capability (0.78).

Ethical Consideration

Ethics approval was obtained from the Human Research Ethics Committee. Information sheets explained the studies purpose. Returned staff questionnaires implied consent was given and as no names were obtained, anonymity was ensured. Although identification of staff and patients were necessary to follow-up incidents, these details were excluded from reports. All data were stored securely with access limited to those involved.

RESULTS

Staff Questionnaire: Response, Demographics and Education

The percentage of returned staff questionnaires before and after the education intervention was similar: 65 pre-questionnaires were mailed and 28 returned (43%) and 73 post-questionnaires were mailed with 31 returned (42.5%).

No significant difference was observed in the gender, age group, professional experience, employment group, work status or rostered work between the pre and post staff (table 1). The majority were female, RN, with more than five years professional experience, aged more than 30 years and working full time but not on permanent night duty. Forty-seven staff completed all four key areas of the education intervention (77%).

Table 1: Demographic details: pre and post questionnaire respondents

	Pre (*n=28*)	Post (*n=30*)	Statistic
Gender			
Male	3	3	*p=1.0* (1df)*
Female	25	26	
Age Range (years)			
<30	8	6	
30-39	7	9	*p=0.67* (4df)*
40-49	4	5	
50-59	8	6	
>60	0	2	
Professional Experience (years)			
<5	12	14	
5-10	5	7	*p=0.54* (4df)*
11-20	5	3	
21-30	5	3	
>30	0	2	
Employment Group			
Nurse RN	23	19	
Nurse EN	5	7	
AIN		1	
PCA		1	
Work Status			
Full Time	21	26	*p=0.78** (1df)*
Part Time	7	6	
Permanent Night Duty			
Yes	3	1	*p=0.35* (1df)*
No	25	28	

*Fisher's Exact Test **χ^2

Staff Questionnaire: the Effect of Clinical Education on Confidence, Capability and Knowledge

Data from three Likert scale questions relating to confidence were summed to give a combined confidence score. Likewise, responses to two Likert scale questions relating to capability to deal with aggression were summed to give a combined capability score and an overall score from four questions assessing knowledge were summed to give a knowledge score, with a potential score of 10. No data were missing and data were not normally distributed (table 2).

Table 2: Descriptive summary of confidence, capability and knowledge scores

	Knowledge Score (/10)		Confidence Score (/15)		Capability Score (/10)	
	Pre	Post	Pre	Post	Pre	Post
N	28	31	28	31	28	31
Median (IQR)	6.0 (4-7)	8.0 (7-9)	10.0 (9-12)	11.0 (10-12)	6.5 (5-8)	7.0 (6-8)

Logarithmic transformation was performed prior to linear regression of the three scores (table 3), which showed a statistically significant difference between the pre/post education scores for knowledge (p=0.001).

Table 3: Summary of linear regression

Variable	Log*prepost questionnaire	F Statistic	P (CI)	r2
Knowledge Score	1.725 – 0.399	$_{1,49}$ 31.504	0.001 (0.256-0.542)	0.391
Confidence Score	2.37 – 0.023	$_{1,55}$ 0.239	0.627 (-0.073-0.119)	0.004
Capability Score	1.848 – 0.045	$_{1,55}$ 0.372	0.545 (-0.104-0.195)	0.007

Violent/Aggressive Incidents: Data Sources and Staff Involved

Most of the incident data was obtained from security reports and patient notes, with the least obtained from CIF and SAIR forms (table 4). The perpetrators' URMN enabled their notes to be sourced to obtain further information.

Table 4: Incident data sources

Data Sources	Pre / Post Frequency		Combined Frequency	Percentage %
Security Data & Patient Notes	18	13	31	64.6
Patient Notes	7	3	10	20.8
SAIR	2	0	2	4.2
Security Data	1	1	2	4.2
SAIR, CIF & Patient Notes	1	0	1	2.1
SAIR, Security Data & Patient Notes	1	0	1	2.1
CIF, Security Data	1	0	1	2.1
Totals	31	17	48	100.0

Although details are incomplete (table 5), the majority of staff involved in the WPV incidents were female (78.8%), RN (68%) worked full time (58.6%), with the majority of incidents involving a single nurse (58.7%). They had been employed for a median of 54 months (IQR 11-103 months) with almost half (48%) employed for less than four years.

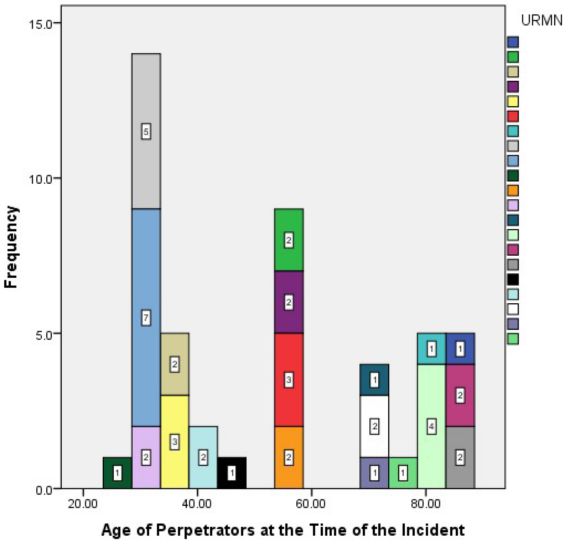
Table 5: Characteristics of staff involved in violent/aggressive incidents

Variables		Number	Valid %
Gender	Male	6	18.2
	Female	26	78.8
	Unknown	1	3.0
	Missing	15	
Employee Status	Full Time	17	58.6
	Part Time	9	31
	Casual / Agency	3	10.3
	Missing	48	
Employment Position	EN	3	8.6
	RN	24	68.6
	AIN	1	2.9
	PCA	1	2.9
	Cleaner	1	2.9
	Security Officer	2	5.7
	Medical Staff	3	8.6
	Missing	13	

Violent and Aggressive Incidents: Perpetrators and Incidents

There were 48 violent/aggressive incidents, with the majority (n=35, 73%) perpetrated by 14 males, who initiated between one and seven incidents each. Twelve incidents (25%) were perpetrated by seven females, with between one to three incidents each, plus an incident where the gender and age was unknown. The known ages of the perpetrators was 26 to 88 years, with a median of 55 (IQR 33-73 years). These data were not normally distributed, with figure 1 demonstrating the spread of the age and the frequency of the repeat perpetrators (URNM omitted to maintain anonymity).

Figure 1: Age of perpetrators at the time of the incident



All known perpetrators (47 of 48), met the criteria indicating a high risk for violence/aggression. The most frequent high risks categories were a history of violence, a history of substance abuse and confusion related to delirium/dementia (table 6). More than one high risk category could apply.

Table 6: High risk characteristics observed in the perpetrators of violence

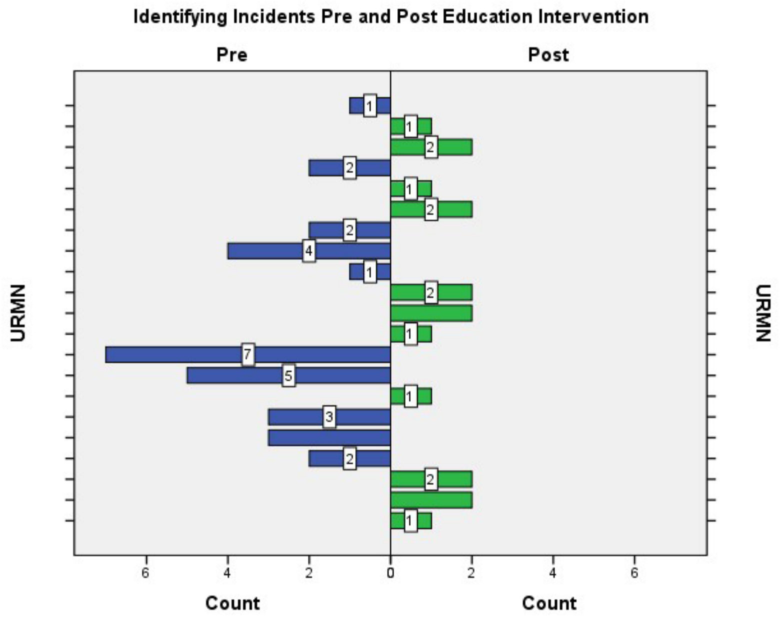
	High Risk		
	Yes	No	Total
History of Violence	32	15	47
History of Substance Abuse	22	25	47
Confusion related to Delirium/Dementia	21	26	47
Non Traumatic Cerebral Problem	16	31	47
Chronic Pain	15	32	47
Current Substance Abuse	14	33	47
History of Substance Intoxication	9	38	47
Head Injury	5	42	47
Current Substance Intoxication	3	44	47
Serious Mental Illness & Acute Psychosis	3	44	47
Serious Mental Illness & Antisocial Personality Trait	3	44	47
Postictal	2	45	47
Hypoglycaemia	1	46	47
Serious Mental Illness & Personality Disorder	1	46	47

In addition to a history of violence, 83% (n=40) of the perpetrators demonstrated adverse behaviours during their current admission. Most incidents occurred in the ward areas (n=44, 92%); one in a bathroom and three outside the ward. There was a six day median between admission and the incident (IQR 3-30 days), with a non-normal data spread. Physical and actual incidents were the most common (n=35 each) followed by verbal incidents (n=23), with potential and near misses (n=6 each) less common and significantly more potential incidents post education (p=0.02, 1df).

Violent and Aggressive Incidents: the Effect of Clinical Education

Violent/aggressive incidents decreased by 45% following education, with the proportion of recurring incident also decreasing. Pre-education seven of 30 incidents were the first incident (this admission); post-education eight of 17 incidents were the first incident. Although not significant (χ2 p=0.08, 1df), less incidents were generated by the same patient. Figure 2 displays the incidents pre/post education. Before the education 10 patients were responsible for 30 incidents, with the most frequent reoffender perpetrating seven incidents. Following education there were 17 incidents from 11 patients, with a maximum of two incidents each.

Figure 2: Frequency of incidents per patient pre and post education



Verbal de-escalation in the immediate crisis increased significantly post education (p=0.001, 1df), although there was no increase in other crisis management activities: medications administered (p=0.1, 1df), withdrawing (p=0.61, 1df), activating code black (p=0.32, 1df), physical (p=0.2, 1df) or mechanical restraint (p=0.79, 1df). Furthermore, no significant changes were observed in the ongoing management post education: patient review (0.37, 1df), management plan (p=0.14, 1df) or medication review (p=0.2, 1df).

DISCUSSION

All perpetrators in this study were admitted to general medical wards with medical disorders. However, they also had characteristics that posed a high risk of violence: a history of violence, substance abuse and cognitive dysfunction (Stewart and Bowers 2013; Pich et al 2010; Luck et al 2007). Therefore, as these perpetrators met the criteria for high risk of violence, their behaviour was predictable. Healthcare workers must remember that a past history of violence is the greatest predictor of future violence (Ferns 2005), that an estimated 40% of admitted patients have substance abuse issues (alcohol and drugs) (Phillips 2007) and of the violence potential within cognitive dysfunction (Luck et al 2007). Furthermore, they need to monitor behaviours used by Emergency Department (ED) nurses (Luck et al 2007) and non-ED nurses (Chapman et al 2009b), that serve as warnings of potential violence. These behaviours are summarise within the acronym STAMP: **S**taring and eye contact, **T**one and volume of voice, **A**nxiety, **M**umbling and **P**acing (Luck et al 2007).

Patient assessment is one of many preventative interventions required to address violence in healthcare, in combination with security systems, zero tolerance policies, organisational support, flagging/alert systems and education/training (Kling et al 2011; Kling et al 2006). Although training demonstrates short term success reducing violence (Kling et al 2011; Zarola and Leather 2006) there is evidence that recognising predictors of violence and implementing de-escalation influences the outcome of potentially violent situations (Jackson et al 2014; Chapman et al 2009a, 2009b). As a consequence of this study, and to align with the literature, training was amended to pro-actively promote early recognition of the predictors of violence and development of de-escalation strategies to avert exacerbation of violence (Jackson et al 2014; Chapman et al 2009b). Pro-active training promotes prevention rather than management of incidents and aligns with the WorkSafe Code of Practice (Commission for Occupational Safety and Health 2010).

Due to their social, medical and violence history, difficulties were experienced securing discharge accommodation for some perpetrators. Consequently, they exceeded the average length of stay (2.6 days) and perpetrated multiple incidents during their admission (eight, 12, 45 and 114 days). Frustration at this perceived lack of care may have contributed to recurring episodes of violence (Roche et al 2010). It is recommended that patients with known mental health illnesses are 'fast-tracked' to appropriate wards/units to reduce the risk of violence (Pich et al 2010), with a relationship identified between waiting for placement and violent/aggressive incidents (Roche et al 2010). Difficulties placing patients who meet the high risk criteria for violence can be anticipated at the time of admission and priority should be given to finding suitable places to ensure a safer workplace.

An advantage of the education intervention was that it placed experts within the study wards. This significantly increased knowledge and the use of verbal de-escalation, resulting in fewer incidents and recurring incidents. However, confidence and capability of the staff did not increase. These qualities may require more time to develop and may benefit from ongoing input from experts. Capability, (perceived ability, confidence and self-assurance to deal with conflict) was described as essential to prevent WPV (Zarola and Leather 2006), and raises concerns related to this study. Therefore, it is recommended that early contact is made with clinical experts when high risk patients are first identified, rather than following an incident, and that key ward staff are trained and mentored to develop confidence in managing patients with a risk for violence/aggression.

As the majority of staff were female nurses it is not surprising they were involved in the majority of incidents or that full-time staff were involved in more incidents. However two vulnerable groups stand out and align with literature: incidents involving a single nurse and staff with ≤48 month experience (Roche et al 2010). As a mechanism to protect staff from patients who pose a risk of violence, staff should not enter the patient room alone (Kling et al 2011). A prerequisite is that patients are assessed to identify those with a high risk for violence, that the risk is documented (notes and handover sheets) and verbally reported at shift changes and to everyone involved. When a history of violence/aggression is known, vigilance is required, as it is the greatest indicator of future behaviours (Pich et al. 2010; Chapman et al 2009b; Luck et al 2007). By contrast to the less experienced vulnerable group, nurses with more experience appear to be able to recognise signs that predict violence and then to take steps to de-escalate the situation (Roche et al 2010). Although all staff are at risk, this highlights the increased vulnerability of those with less experience and the need to reinforce these details within training sessions.

Limitations of this study include the sample size with incidents from just two wards. Furthermore, under-reporting is anticipated with these incidents inevitably omitted.

CONCLUSIONS

The purpose of this study was to assess the effectiveness of a clinically based education intervention. An outcome was that knowledge related to violence/aggression improved significantly as did the use of verbal de-escalation, and consequently both the frequency of incidents and the number of recurring incidents decreased. The education intervention provided information and coaching by clinical experts, with the results suggesting that access to clinical expertise enhanced the development of skill managing violence/aggression. The prevalence of violence within general hospitals is unlikely to spontaneously decrease. Therefore, it is essential to embrace pro-active strategies and have a planned response rather than reacting to incidents. This will ensure staff are better prepared to manage patients with a high risk for violence.

REFERENCES

Brennan, W. 2010. Safer lone working: assessing the risk to health professionals. *British Journal of Nursing*, 19(22):1428-1430.

Chapman, R., Perry, L., Styles, I. and Combs, S. 2009a. Consequences of workplace violence directed at nurses. *British Journal of Nursing*, 18(20):1256-1261.

Chapman, R., Perry, L., Styles, I. and Combs, S. 2009b. Predicting patient aggression against nurses in all hospital areas. *British Journal of Nursing*, 18(8):476.

Commission for Occupational Safety and Health. 2010. Code of practice. Violence, aggression and bullying at work. Perth WA: WorkSafe Division.

Drummond, D., Sparr, L. and Gordon, G. 1989. Hospital violence reduction among high-risk patients. *Journal of the American Medical Association*, 261(17):2531-2534.

Ferns, T. 2005. Violence in the accident and emergency department – an international perspective. *Accident and Emergency Nursing*, 13(3):180-185.

Gates, D., Gillespie, G., Smith, C., Rode, J., Kowalenko, T. and Smith, B. 2011. Using action research to plan a violence prevention program for emergency departments. *Journal of Emergency Nursing*, 37(1):32-39.

Hegney, D., Eley, R., Plank, A., Buikstra, E. and Parker, V. 2006. Workplace violence in Queensland, Australia: the results of a comparative study. *International Journal of Nursing Practice*, 12(4):220-231.

Jackson, D., Wilkes, L. and Luck. L. 2014. Cues that predict violence in the hospital setting: finding from an observational study. *Collegian*, 21(1):65-70.

Kling, R., Corbiere, M., Milord, R., Morrison, J.G., Craib, K., Yassi, A., Sidebottom, C., Kidd, C., Long, V. and Saunders, S. 2006. Use of a violence risk assessment tool in an acute care hospital. *American Association of Occupational Health Nurses*, 54(11):481-487.

Kling, R.N., Yassi, A., Smailes, E., Lovato, C.Y. and Koehoorn, M. 2011. Evaluation of a violence risk assessment system (the Alert System) for reducing violence in an acute hospital. *International Journal of Nursing Studies*, 48(5):534-539.

Luck, L., Jackson, D. and K Usher. 2007. STAMP: components of observable behaviour that indicate potential for patient violence in emergency departments. *Journal of Advanced Nursing*, 59(1):11-19.

Mental Health Adult Program. April 2010. Framework for clinical risk assessment and management of harm. Perth: Department of Health, North Metropolitan Area Health Service.

Peek-Asa, C., Casteel, C., Allareddy, V., Nocera, M., Goldmacher, S., Ohagan, E., Blando, J., Valiante, D., Gillen, M. and Harrison, R. 2009. Workplace violence prevention programs in psychiatric units and facilities. *Archives of Psychiatric Nursing*, 23(2):166-176.

Phillips, S. 2007. Countering workplace aggression: an urban tertiary care institutional exemplar. *Nursing Administration Quarterly*, 31(3):209-218.

Pich, J., Hazelton, M., Sundin, D. and Kable, A. 2010. Patient-related violence against emergency department nurses. *Nursing and Health Sciences*, 12(2):268-274.

Roche, M., Diers, D., Duffield, C. and Catling-Paull, C. 2010. Violence toward nurses, the work environment, and patient outcomes. *Journal of Nursing Scholarship*, 42(1):13-22.

Shields, M, and Wilkins, K. 2009. Factors related to on-the-job abuse of nurses by patients. Health Reports / Statistics Canada, Canadian Centre For Health Information = Rapports Sur La Santé / Statistique Canada, *Centre Canadien D'information Sur La Santé*, 20(2):7-19.

Stewart, D. and Bowers, L. 2013. Inpatient verbal aggression: content, targets and patient characteristics. *Journal of Psychiatric and Mental Health Nursing* 20(3):236-246.

World Health Organization. 2002. Framework guidelines for addressing workplace violence in the health sector. Geneva: International Labour Office, International Council of Nurses, World Health Organization, Public Services International. A joint programme on workplace violence in the health sector.

Zarola, A. and Leather, P. 2006. Violence and aggression management training for trainers and managers. A national evaluation of the training provision in healthcare settings. Nottingham: Prepared by the University of Nottingham for the Health and Safety Executive.

The impact of clinical placement model on learning in nursing: A descriptive exploratory study

AUTHORS

Professor Melanie Birks
RN, PhD, FACN
Head – Nursing, Midwifery and Nutrition
Centre for Nursing and Midwifery Research
Nursing, Midwifery & Nutrition College of Healthcare Sciences,
James Cook University, Townsville, Queensland, Australia
melanie.birks@jcu.edu.au

Tracy Bagley
RN, BNSc
Manager Student Placement, Division of Tropical Health & Medicine, College of Healthcare Sciences
James Cook University, Townsville, Queensland, Australia
tracy.bagley@jcu.edu.au

Dr Tanya Park
RN, PhD
Assistant Professor,
Faculty of Nursing, University of Alberta,
Edmonton, Alberta, Canada
tmpark@ualberta.ca

Camilla Burkot
MPH
Research Officer, Centre for Nursing and Midwifery Research, Nursing, Midwifery & Nutrition, College of Healthcare Sciences, James Cook University, Cairns, Queensland, Australia
Camilla.burkot@anu.edu.au

Professor Jane Mills
RN, PhD, FACN
Pro Vice Chancellor
College of Health
Massey University, New Zealand
j.mills1@massey.ac.nz

ACKNOWLEDGEMENT

The authors of this paper wish to acknowledge the assistance of the Queensland Regional Training Network Clinical Supervision and Support Program for the financial support provided for this project.

KEYWORDS

Curriculum; nursing; nursing education; nursing students; professional role; placement

ABSTRACT

Background

Learning in the clinical setting is an essential component of nursing education. Two common models of clinical learning place students in facilities using either block or distributed approaches.

Aim

The aim of this study was to examine nursing students' perceptions of the impact of block versus distributed model of clinical placement on their learning experience.

Design

The study employed a descriptive, exploratory approach. Focus groups and an individual interview were conducted with third-year undergraduate nursing students.

Setting

Students from four Australian universities took part in the study.

Subjects

The average age of the 22 student participants was 37.5 years and 91% were female. More than half (55%) studied full time.

Results

Thematic analysis of the data identified five overarching themes: We're there to learn; Taking all that knowledge out and practising it; You actually feel a part of the team; Just prepare them for us coming; and It's really individual.

Conclusions

It is clear that both block and distributed modes of placement have inherent advantages and disadvantages that might be magnified depending on the individual student's circumstances. Sequencing, consistency and preparation must be considered when planning either mode of clinical placement to ensure the best possible experience for students. Most significantly, students need to feel as though they are part of the team while on placement to get the most out of the experience. These findings have implications for education providers planning the integration of clinical placement into the nursing curriculum.

INTRODUCTION

Nursing education must give students a comprehensive knowledge base to support critical thinking and clinical decision-making in expert practice. During undergraduate education, nursing students are taught theoretical foundations and given opportunities to practice skills in simulated environments before undertaking clinical placements across all years of their studies. Most nursing programs use either block or distributed models, or a combination of both (Walker et al 2013). In Australia the Australian Nursing and Midwifery Accreditation Council (ANMAC) sets minimum standards for professional experience acquired through clinical placements (ANMAC 2012). The standards do not, however, provide recommendations about the type of clinical placement model.

Choice of placement model is often determined by practical and financial factors rather than pedagogical needs. Current types of clinical placement in nursing education include block and distributed modes. The choice of placement model adopted by nurse educators is dependent on factors such as curriculum design, cost effectiveness and partnerships with health facilities – including contractual agreements (Walker et al 2013; Löfmark et al 2012). Block placement is based on the apprenticeship style of nurse training utilised prior to the transfer of nursing education to the university sector (which was finalised in 1992 in Australia). This model incorporates full-time placement for a period of weeks either within the study period or during semester breaks (Kevin et al 2010). The distributed model arose from a National Review of Nurse Education (Heath 2002) recommendation that undergraduate nursing students have weekly exposure to a broader range of clinical settings. Distributed placement requires students to attend placement and classes concurrently; for example two days in the clinical setting and three days of classes per week (Kevin et al 2010).

Research evidence (Levett-Jones et al 2008) suggests that short periods of one to two week block placements do not enable nursing students enough time to settle into the clinical setting, which influences their experience of 'belongingness'. Clinical staff are also less likely to feel a sense of ownership of the process of block placement, resulting in inadequate time being allocated to meet students' needs (Walker et al 2014; Levett-Jones et al 2008; Heath 2002).

Various studies (Kevin et al 2010; McKenna et al 2009; Ranse and Grealish 2007) report nursing students' perceptions of the distributed model. Positive student outcomes include continuity, familiarity, greater opportunities for learning and early professional socialisation. However, students were critical of the lack of the time they had to prepare for weekly placements (Kevin et al 2010).

Little evidence in the current literature supports the efficacy of one model over another. While the broader literature provides evidence of factors influencing students' and preceptors experiences of clinical placement (Paliadelis and Wood 2016; Courtney-Pratt et al 2015; Kevin et al 2010; Warne et al 2010; McKenna et al 2009; Ranse and Grealish 2007), a review of the literature failed to identify any studies that consider the efficacy of block placement versus distributed placement models. The lack of published evidence provides justification for this study, which aims to examine nursing students' perceptions of the impact of block versus distributed model of clinical placement on their learning experience.

METHOD

Ethical approval was obtained from the university's Human Research Ethics Committee. A descriptive exploratory design that employed focus group interviews with nursing students was used. Third-year students were recruited to ensure the participant group had the broadest possible experience of placement. Twelve institutions across one Australian state were approached to participate. Despite in principle widespread support, the limited availability of students during this final year of their program resulted in three focus group interviews and one individual interview being conducted with a total of 22 participants. Interview groups were undertaken at the students' universities during final-year teaching periods outside of students' scheduled classes. As this was a convenience sample across a diverse geographical area, each focus group was comprised of students from a single institution. The majority of participating students experienced both block and distributed placement during their studies.

Focus group interviews were conducted by at least one member of the research team, sometimes with the aid of a research assistant. Participants completed an anonymous survey that gathered demographic information such as gender, age, course and duration of enrolment. Focus groups have the advantage of bringing individuals with shared interests that stimulate interaction (Birks and Mills 2015). In this study the process was enhanced by the use of activities that engaged students and encouraged them to examine their previous placement experiences, including reflecting on factors that determined whether or not these were effective. Through this process of 'sharing and comparing' (Morgan 2012, p164) participants were encouraged to explore how and why characteristics of block and distributed modes of placement had the potential to enhance or detract from the learning experience. Interviews were recorded and transcribed for thematic analysis using qualitative data analysis software (NVivo). Materials such as post it notes and posters produced by participants during the interactive activities were also collected and used for clarification where necessary.

FINDINGS

The average age of the 22 participants, who were all from the same State, was 37.5 years (median: 37.5, range: 20 – 60), and 91% were female. A female academic also attended at one location, primarily as an observer. All participants were enrolled in a nursing degree program at the time of the study. Students recruited to the study were in their third (final) year of study though, on average, participants had been enrolled for 3.6 years (median: 3, range: 2.5 – 6). This can be explained by the variation in enrolment mode: 41% of participants studied part-time, while 55% studied full-time (5% enrolment mode not stated). Twenty-three percent of participants studied on-campus, 37% studied off-campus, and 9% studied in a mixed mode (on and off campus) (32% not stated).

Data from the transcripts were analysed to identify overarching themes. The five resultant themes were, *We're there to learn; Taking all that knowledge out and practising it; You actually feel a part of the team; Just prepare them for us coming;* and *It's really individual.*

"We're there to learn"

Study participants characterised the best placements as those that featured 'learning opportunities', i.e. situations that challenged students to make clinical decisions and acquire new skills. These learning opportunities materialised when three interrelated factors were in place: consistent expectations; clear understanding of the student scope of practice; and trust in student abilities. When students and staff knew which skills and behaviours were expected, students were free to focus on skill mastery without distraction, intimidation or frustration. Consistency in the supervising nurse was considered particularly important.

> *"I agree, consistency in the nurses [is good] because they're very different and they do their clinical skills different as well, which can make it confusing because you feel under pressure to do it the way they do it and then the next day you feel under pressure to do it the way [another nurse is] doing it."*

Participants generally found that block placements fostered consistency in the short-term, as opposed to distributed placements where "[i]n two days, you're just starting to get the hang of it and then you're not back until the week after or something". Individual student-supervisor relationships and the context of placement also had a bearing on consistency; for example an aged care facility or doctor's surgery was more likely to be characterised as consistent compared to a busy hospital ward. Consistency can present a barrier to learning if the student is barred from trying new skills. Regardless of mode, a common barrier to learning was uncertainty about students' scope of practice among both staff and students themselves:

> *"So nobody knows what you can and can't do. So they don't offer you the things that you want to learn how to do. You miss a lot of opportunities when no one knows what your scope is or when there's miscommunications about it."*

Though participants were usually eager to extend their skillsets, they were also acutely aware of the implications of practicing outside their scope:

> *"...the way she made me feel, I thought, oh my God, I'm going to get thrown off prac... so I was just shaking... I went to my bag and got out my scope of practice for prac... and... I just went to her and I said, 'look', you know, thinking I was in such big trouble, 'I just want to let you know this is what we've been told I'm allowed to do'."*

Participants did not perceive either placement mode as inherently better for promoting a clear understanding of the students' scope of practice, though one student commented that, hypothetically, it would be easier to delineate the scope in block placement, because:

> *"They'll know the days and the times that you're going to be there. Therefore they can go 'right, all of the students from [this subject], who can do exactly this, will be here, Monday to Friday on these three weeks'."*

"Taking all that knowledge out and practising it"

Clinical placement experiences should provide students with authentic learning experiences that enable them to consolidate knowledge. Sequencing appeared to be of greater importance than mode of placement for promoting integration of theory and practice.

> *"One of my placements was... for chronic, [but] we hadn't done acute... I'm like 'I have no idea what I'm doing'. They probably thought I was an idiot."*

Some participants suggested that distributed placements enabled students to integrate theory and practice more effectively because students had the opportunity to explore in greater depth what they encountered on the ward:

> *"...if you found something on placement that you wanted to research you had the time to. With block you've got the weekend and you've got to catch up on uni work, so you don't have the time to... look it up."*

Participants indicated that the appropriateness of placement mode shifted over time. While a distributed placement was perceived as a better fit for first-year students who required "balance" and "more time" to adjust to the clinical environment, block placements become more suitable as students' confidence and skills increased.

"You actually feel a part of the team"

Participants valued placements that supported the development of their identity as a nurse. Participants spoke highly of placements that best approximated 'authentic' or 'real life' working conditions, particularly being treated as part of the nursing team; managing shift work; being given responsibility for particular patients; and learning to adapt to changing circumstances. The allocation of meaningful nursing tasks to students offered mutual benefits:

> *"it really builds your self-confidence when you know that you can actually help and ... decrease someone's workload while you're there as well as actually learning. It means that when you go into the work force, you can go 'yeah I've done that heaps of times'."*

Participants generally found they were more likely to become part of the nursing team on distributed placements; the structure of this model enabled students to develop effective communication skills and to become familiar with staff and routines on the ward. Block placements, however, were perceived as being more 'realistic' in terms of exposure to shift work and increasing the likelihood of being present for routine ward activities (e.g., handovers). Participants also reasoned that the short period of full-time work during the block better replicated a registered nurse's schedule and fitted more easily around academic obligations (e.g., a student on block could work a night shift, just as a registered nurse might, without having to attend lectures the following morning).

Participants repeated that self-confidence was fostered when supervising nurses demonstrated confidence in students' ability to practise effectively, "The best thing that happened to me was I had a nurse who said, 'okay, you write the plan, I'm following you today, you're running the shift'." When staff validated students as knowledgeable, skilled future nurses, this provided a huge boost for students' confidence.

> *"I wasn't even referred to as a student. I was referred to as a colleague. It made you feel so good … 'this is my colleague, she would like to ask some questions, is that okay?' Yep. Awesome."*

However, this kind of validation was overshadowed by examples of participants' abilities being discounted, which can significantly limit learning opportunities:

> *"As soon as you walk onto that ward and you've got that student shirt, you're just nothing, you're just there to clean up for them while they went and had a coffee break or a smoke break."*

There appears to be little distinction between block and distributed modes in terms of reducing what participants referred to as the "stigma" of being a student. Rather, this is perceived as dependent on institutional culture, a complex variable not readily mitigated by the mode or sequencing of placement:

> *"I don't think it boils down to how often we're there, or how regularly we're there. I think it's just a culture thing."*

"Just prepare them for us coming"

While the factors discussed above have pedagogical importance, findings suggest that preparation and planning at the placement sites strongly influence students' placement learning experiences regardless of mode. Such organisational factors are peculiar to a given placement site and are, therefore, more difficult to control. Organisational issues raised by students included staff not anticipating students, students not being told where to go or who to work with, and an inappropriate mix of staff/supervisors.

> *"I was allocated to a placement where they didn't always have students. So I showed up, they didn't know I was coming and the two ladies said 'oh I'm not having a student' and the other one said 'well I'm not having a student'."*

Providing students with a comprehensive, practical orientation upon arrival is a key responsibility of placement sites. Without proper orientation students spend valuable time seeking mentorship and trying to orient themselves to the site (e.g., paperwork procedures, computers/library access, parking) rather than gaining valuable professional experience.

> *"Unless you have a really good facilitator that puts you with someone, it's up to you to sort of be like 'can I work with you?"*

"It's really individual"

Personal factors strongly influenced students' placement experiences. In particular, balancing placements with study, work and family commitments were key considerations for participants. The placement mode that was most effective for promoting learning was, therefore, determined at the individual level. Maintaining a balance between study and personal life was a prominent concern. Whilst acknowledging that "a little bit of pressure is (a) good" motivator, participants felt they were at high risk of 'burn-out' as a consequence of struggling to manage placement expectations, academic workload and personal responsibilities.

For parents with young children, block placements proved challenging. Block placements demanded students' full-time attention for weeks at a time and were associated with greater financial burden. Costs cited included accommodation and fuel (for students placed away from their usual place of residence), childcare expenses, and lost earning opportunities:

> *"There's some people who work on weekends and block works for them fine. But I think for a lot of us, that's not the case and you're expected to save up for it. But that's nigh on impossible."*

Several participants commented that while distributed placements presented some pragmatic benefits, block placements offered the distinct advantage of encouraging a singular focus on the placement experience:

> *"I think that it's handy having block, because you know the rest of your life stops during this period. That's it. ...it's nice to know, in this period of time, the rest of life stops."*

DISCUSSION

The clinical experience component of pre-registration nursing programs is the most important factor in the development of reflective, evidence based practitioners who are committed to ensuring quality outcomes in the practice environment (Henderson et al 2012). Participants in this study were aware of the important role that clinical placement played in the consolidation of learning. While the block placement model was considered by some participants to offer a realistic and authentic experience of the registered nurse role, numerous other factors determined which mode of placement was considered most conducive to learning. Of these factors, consistency was seen as one of the most critical. Consistency supports continuity and could take the form of working with the same staff, returning to the same environment, or being in a given environment over a period of time (Gilmour et al 2013). Participants felt that consistency facilitated familiarity between students and staff, particularly in relation to students' capabilities; similar findings were reported in Courtney-Pratt et al (2012). Block placements were generally perceived to be more likely to support consistency, a concept supported by Levett-Jones et al (2008) who found that a settling-in period preceded the ability of students to focus on learning at each placement. For participants in that study, the capacity to benefit fully from learning opportunities was limited in shorter placements. Personal preferences and lifestyle factors determined the extent to which a student would find one or the other mode of placement more conducive to learning. Block placement can create a situation of difficulty, even hardship, for some students. Where such pressures do not exist, block placement can provide an opportunity for focused learning.

The current climate in which clinical placements for nursing students is negotiated is complex and driven by numerous factors that are often beyond the control of the educational institution. Quality clinical placements are secured in a competitive environment as all institutions seek to meet the minimum requirements for registration of graduates determined by the accrediting authority (ANMAC 2012). Clinical venues also struggle to support these requirements within political and economic constraints. These factors contribute to the issues identified by participants in this study in relation to planning for placements. Adequate preparation of clinical environments and the staff who support students undertaking clinical placement (Courtney-Pratt et al 2012) is essential for ensuring a quality learning experience. This might be as simple as ensuring staff at the unit level are aware that students will be on placement at a given time. As described in this study, students can feel very unwelcome and be derailed from the outset if their arrival is not expected by clinical staff (Gilmour et al 2013).

Participants did identify some aspects of the clinical experience that could be improved by the educational institutions themselves, particularly in respect of the scheduling of clinical placement relative to the curriculum. Aligning practical exposure with theoretical instruction has become increasingly difficult for nurse academics in recent decades because of growth in student numbers. This study indicated the impact that this misalignment of theory and practice can have on the learning of related concepts. In respect of sequencing of modes, distributed placements may be of greater value earlier in the program of study, with block placements being more beneficial during the later stages as students build confidence. This finding reflects that of Roxburgh (2014) who found that supportive models used earlier in a nursing program built resilience for a different model of placement in subsequent years.

Participants in this study highlighted the importance of feeling part of a team, reflecting the findings of participants in studies by both Courtney-Pratt et al (2012) and Gilmour et al (2013) who felt that this level of acceptance was critical to ensuring a positive placement experience. Participants in this study found that becoming part of a team was more likely to occur with a distributed placement model, an outcome inconsistent with the work of Levett-Jones et al (2008). Participants in this study also discussed the importance of staff having confidence in the student's ability to function in the clinical environment. Confidence was instilled when registered nurses trusted students to take on greater responsibility, similar to the experience of midwifery students in Gilmour et al's study (2013). The results presented in the preceding section suggest that participants felt this confidence was more effectively built with a distributed model, once again at odds with the work of Levett-Jones et al (2008). When students did not feel as though they were part of a team, the clinical placement experience could be negative and learning potential was reduced. The findings reported in this paper reveal the stigma associated with being a student. Participants found environments that "were not welcoming or facilitative of their learning" (Levett-Jones et al 2008, p14) had little benefit, regardless of mode.

RECOMMENDATIONS AND LIMITATIONS

It is clear that both block and distributed modes of placement have inherent advantages and disadvantages. The results of this study showed that block placements were regarded by students as more effective than distributed placements in three main areas: gaining a realistic sense of the work, routines and schedules of nursing; encouraging a singular focus on placement; consistency in teaching and learning style of clinical supervisors. On the other hand, distributed placements were regarded as more conducive to the following: work life balance; integrating theory and practice; developing the feeling that one was 'part of the team'. Students also said that the placement model had little bearing on a number of crucial factors that affected their learning, such as uncertainty about scope of practice; readiness of the workplace to manage placements; and the 'stigma' of being a student nurse.

While individual factors will often determine the value of clinical learning, measures can be taken to enhance student learning experiences regardless of the placement model employed. Such measures include:

- ensuring appropriate sequencing of placements to align with theoretical and chronological stages of study;
- promoting consistency by enabling students to return to a familiar venue;
- adequately preparing the clinical environment for the students they receive on placement; and
- establishing a culture that encourages students to feel as though they are members of the team.

The main limitation of this study was that it was confined to one state and was constrained by student availability in their critical final year of study. While the models of placement described in this paper reflect those in other parts of the country, it is acknowledged that different approaches to clinical experience placement are used internationally. Future research may explore the potential application of these diverse models to the local context; or the perspectives of a broader cross section of students and/or staff of clinical and educational institutions. Targeted research that develops strategies to address learning in the clinical environment more broadly would also prove valuable.

CONCLUSION

Professional experience in the clinical environment is crucially important for students of nursing. As the resources available to support students on clinical placement are subject to increasing stressors, it is critical that the quality of the experience not be compromised. Consideration needs to be given, therefore, to identifying the most appropriate placement model to support student learning. Placement models vary by institution, but preparation of students and staff in the clinical setting is critical to the success of the placement experience. Such preparation provides a foundation for the development of relationships that contribute to students feeling part of a team. This sense of belonging is inextricably linked to the facilitation of positive learning experiences that are critical to preparation for the professional role.

REFERENCES

Australian Nursing and Midwifery Accreditation Council. 2012. Registered Nurse Accreditation Standards 2012. Canberra: Australian Nursing and Midwifery Accreditation Council (ANMAC), http://www.anmac.org.au/sites/default/files/documents/ANMAC_RN_Accreditation_Standards_2012.pdf (accessed 25.02.17).

Birks, M. and Mills, J. 2015. Grounded theory: A practice guide. London: SAGE.

Courtney-Pratt, H., FitzGerald, M., Ford, K., Marsden, K. and Marlow, A. 2012. Quality clinical placements for undergraduate nursing students: a cross-sectional survey of undergraduates and supervising nurses. *Journal of Advanced Nursing*, 68(6):1380-1390.

Courtney-Pratt, H., Ford, K. and Marlow, A. 2015. Evaluating, understanding and improving the quality of clinical placements for undergraduate nurses: A practice development approach. *Nurse Education in Practice*, 15(6):512-516.

Gilmour, C., McIntyre, M., McLelland, G., Hall, H. and Miles, M. 2013. Exploring the impact of clinical placement models on undergraduate midwifery students. *Women & Birth,* 26(1), e21-25.

Heath, P. 2002. National Review of Nurse Education 2002: Our Duty of Care. Canberra: Commonwealth of Australia.

Henderson, A., Cooke, M., Creedy, D. K. and Walker, R. 2012. Nursing students' perceptions of learning in practice environments: A review. *Nurse education today*, 32(3):299-302.

Kevin, J., Callaghan, A., Driver, C., Ellis, J. and Jacobs, B. 2010. A possible alternative model of clinical experience for student nurses. *Journal for Nurses in Professional Development,* 26(5):E5-E9.

Levett-Jones, T., Lathlean, J., Higgins, I. and McMillan, M. 2008. The duration of clinical placements: a key influence on nursing students' experience of belongingness. *Australian Journal of Advanced Nursing,* 26(2):8-16.

Löfmark, A., Thorkildsen, K., Råholm, M.-B., & Natvig, G. K. 2012. Nursing students' satisfaction with supervision from preceptors and teachers during clinical practice. *Nurse Education in Practice*, 12(3):164-169.

Morgan, D.L. 2012. Focus groups and social interaction.In J.F.Gubrium, J.A Holstein, A.B. Marvasti & K.D.McKinney, The SAGE handbook of interview research: The complexity of the craft (2nd edn, pp161-175). Thousand Oaks: SAGE.

McKenna, L., Wray, N. and McCall, L. 2009. Exploring continuous clinical placement for undergraduate students. *Advances in Health Sciences Education*, 14(3):327-335.

Paliadelis, P. and Wood, P. 2016. Learning from clinical placement experience: Analysing nursing students' final reflections in a digital storytelling activity. *Nurse Education in Practice*, 20:39-44.

Ranse, K. and Grealish, L. 2007. Nursing students' perceptions of learning in the clinical setting of the Dedicated Education Unit. *Journal of Advanced Nursing*, 58(2):171-179.

Roxburgh, M. 2014. Undergraduate student nurses' perceptions of two practice learning models: A focus group study. *Nurse education today*, 34(1):40-46.

Walker, S., Dwyer, T., Broadbent, M., Moxham, L. and Sander, T. 2014. Constructing a nursing identity within the clinical environment: The student nurse's experience. *Contemporary Nurse: A Journal for the Australian Nursing Profession,* 49(1):103-112.

Walker, S., Dwyer, T., Moxham, L., Broadbent, M. and Sander, T. 2013. Facilitator versus preceptor: Which offers the best support to undergraduate nursing students? *Nurse education today*, 33(5):530-535.

Warne, T., Johansson, U.B., Papastavrou, E., Tichelaar, E., Tomietto, M., Van den Bossche, K., Moreno, M.F. and Saarikoski, M. 2010. An exploration of the clinical learning experiences of nursing students in nine European countries. *Nurse education today*, 30(8):809-815.

Can patients and their caregivers boost identification of HIV Associated Neurocognitive Disorder (HAND)?

AUTHORS

Denise Cummins
RN , MPH, GCertPC, GCertONCNurs, GCertCN, GCertHIVNurs, Clinical Nurse Consultant HIV Disease
Sydney District Nursing Service, Community Health, Sydney Local Health District, 103-105 Redfern St
Redfern, NSW, Australia
Denise.Cummins@sswahs.nsw.gov.au

Kenneth Murray
RN, MNurs(ClinLead), GCertMntlHlthNurs
Clinical Nurse Consultant,
Maroubra Community Mental Health Service, South Eastern Sydney Local Health District
130 Garden Street, Maroubra, NSW, Australia
Kenneth.murray@sesiahs.health.nsw.gov.au

Gary Trotter
RN, RM, GDipHSc, Clinical Nurse Consultant HIV Disease, Royal Prince Alfred Hospital, Sydney Local Health District, Missenden Road Camperdown, NSW, Australia
Garry.trotter@sswahs.nsw.gov.au

Associate Professor Marijka Batterham
MMedStat MSc(Nutr&Diet) PhD AdvAPD AStat
Director, Statistical Consulting Centre, University of Wollongong, Nordields Avenue, Wollongong, NSW, Australia
Marijka@uow.edu.au

Loretta Healey
BSocWk, GradDipSHC, Senior Counsellor, RPA Sexual Health, Sydney Local Health District,
16 Marsden Street, Camperdown, NSW, Australia
healeyl@email.cs.nsw.gov.au

A/Prof Catherine C O'Connor
MB.BS(Hons), DrPH, MM, FAChSHM, FRACGP, DRACOG
Director Sexual Health Service, Exec Clinical Director Community Health, Sydney Local Health District, 16 Marsden Street Camperdown, NSW Australia
Catherine.oconnor@sswahs.nsw.gov.au

Acknowledgements

Thank you to Dr David Horry for providing neuropsychological exam results; all the doctors at each clinic and Ms Velma Parkinson at Liverpool Hospital. Thanks to Abbvie for an unconditional education grant, used for data analysis and printing. Much appreciation to all the participants and caregivers involved in the study.

KEY WORDS

People living with HIV, HIV associated neurocognitive disorder, mild neurocognitive disorder, caregiver

ABSTRACT

HIV associated neurocognitive disorder (HAND) may be difficult to identify as signs and symptoms (S&S) are nonspecific.

Objective

To ascertain whether people living with HIV and their caregivers using a self reflective tool could identify S&S of HAND.

Design

This study was a nurse led prospective observational multi-site study using a quantitative design.

Setting

Participants were recruited from three sites in Sydney, New South Wales (NSW), Australia: an inner metropolitan HIV clinic, an inner metropolitan sexual health clinic and a suburban hospital HIV clinic.

Subjects

121 patients and 44 caregivers who attended ambulatory clinics providing HIV care.

Main Outcome Measures

Observing usual standard of care to follow patients who had formal neuropsychological testing and diagnosis of HAND.

Results

Sixty one percent of participants and 57% of caregivers identified more than four symptoms. Sixteen had neuropsychological exams; five were diagnosed with HAND. After changes to their medication regime all of those five showed an improvement in cognition. Of the remaining 11, four results were inconclusive, with some deficits noted.

Conclusion

Patients and caregivers stated the booklet helped them to reflect on behavior changes which they could subsequently discuss with their doctor. The booklet was considered useful to identify S&S which could indicate HAND.

INTRODUCTION

HIV is treated with medications known as antiretroviral drugs which has had a substantial positive impact on morbidity and mortality for People Living with HIV (PLHIV) and has resulted in life expectancy approaching population norms for those individuals who have optimal adherence to HIV medications. (Clifford and Ances 2013). Yet, despite HIV virological suppression and immune recovery, studies suggest 30% of PLHIV are affected by HIV associated neurocognitive disorder (HAND), (Clifford and Ances 2013; del Palacio et al 2012; Heaton et al 2010) significantly impacting quality of life (Tozzi et al 2004).

In the 1980s, the clinical features of AIDS dementia complex (ADC) were those of a sub-cortical dementia characterised by cognitive impairment, behavioural abnormalities and disturbed motor function. With the introduction of antiretroviral medications, ADC largely disappeared from clinical practice, but now milder forms of cognitive impairment are being observed. In 2007, the classification for ADC was revised, and is now known as HAND. HAND is divided into three categories, each with varying degrees of disability impacting quality of life: Asymptomatic Neurocognitive Impairment (ANI), Mild Neurocognitive Disorder (MND), which causes symptomatic disease, and HIV Associated Dementia (HAD) (Antorini et al 2007). This study focuses on the signs and symptoms (S&S) associated with MND.

MND affects the person’s ability to perform activities of daily living such as preparing meals, managing finances, attending doctors’ appointments and driving. It may also affect their social relationships and the ability to retain employment or be promoted. Caregivers can have a positive effect on the health and well being of PLHIV (Gisslen et al 2011) and may be well placed to notice any changes in the PLHIV. Signs and symptoms of MND may be subtle and are potentially normalised by PLHIV and may be difficult to detect by clinicians. Individuals may start to notice mild memory problems and slowness, difficulties in concentration, planning and multitasking (Schouten et al 2011; Heaton et al 2010; Grant 2008).

A booklet was developed (Trotter and Cummins 2008) to be used by patients and caregivers to reflect on whether the person was experiencing signs and symptoms which may indicate HAND. Information in the booklet focused on four key areas that affect cognition (memory, concentration, motor skills and social skills) for patients and their caregivers to reflect on any changes in cognition. Using the booklet enabled the caregiver to recognise potential signs and symptoms of MND. It should be noted that some PLHIV may be socially isolated (McDonald et al 2013) and not have the support of a caregiver and may have no one they can rely upon who may notice changes in their cognition including memory, motor function and social behaviour.

There are currently no biological markers for a definitive diagnosis of HAND (Atluri et al 2014). Studies suggest predictors of HAND are: past history of AIDS defining central nervous system disease (Fabiani et al 2013), other central nervous system disease (Valcour et al 2004), low CD4 cell count (Schouten et al 2011), drug and alcohol use (Fiala et al 2005), low education level (Tedaldi et al 2015), and Hepatitis C infection (Schouten et al 2012).

PLHIV with cognitive impairment including HAND, have been shown to be less adherent to HIV medication regimes. (Robertson et al 2010; Skinner et al 2009). This may lead to drug resistant HIV, resulting in their current medication regime becoming ineffective (Robertson et al 2010; Skinner et al 2009). Morbidity and mortality can then be affected as the person experiences poor health outcomes secondary to impaired adherence (Thames et al 2011).

If identified and treated early, using HIV drug treatment or changing the medication regimen to medications which have a higher CNS penetration via the blood brain barrier (Letendre et al 2010) may lead to improvement in previous cognitive changes related to MND thus improving outcomes for patients (Cysique et al 2009).

In addition as PLHIV age they may be at risk of other neurologic conditions associated with ageing such as vascular dementia and Alzheimer's disease (del Palacio et al 2012). Thus the complexity of neurological health for PLHIV may be on the increase. The prevalence of MND among PLHIV in Sydney, NSW is unknown. There is a paucity of literature regarding PLHIV's experiences of and their reflections that is consideration of any changes in cognition in the last 12 months and any signs and symptoms they are currently experiencing which may be indicators of HAND.

METHOD

Aim

To consider the value of patient and caregiver use of a self-assessment booklet in leading to early medical assessment of MND.

Design

A quantitative study from a prospective observational multi-site study to explore the usefulness of a patient self-assessment booklet "HIV associated MND: How to recognise signs and symptoms" developed by two of the authors (Trotter and Cummins 2008) by assisting PLHIV and their caregivers in recognising any signs and symptoms of cognitive impairment as noted in the booklet. This is not a validated tool but was developed to explore whether patients were experiencing any signs and symptoms which could indicate HAND. The study period ran over 28 months from June 2012 to October 2014.

Setting

The study was conducted at three outpatient sites within two Health Districts covering a greater part of Sydney, NSW, Australia.

Each site provides HIV specialist care: an inner city hospital based clinic, an inner city sexual health clinic and a suburban hospital based clinic. The inner city clinics are in the inner west of Sydney which has the second highest number of HIV diagnoses in NSW, Australia. A high proportion of patients seen at these clinics are men having sex with men (NSW HIV Strategy 2012-2015). The suburban hospital HIV clinic is in the outer suburbs of Sydney and cares for a high proportion of participants from culturally and linguistically diverse (CaLD) backgrounds.

Participants

Participants were recruited whilst attending their regular multi-disciplinary consultation reviews at outpatient clinics at one of the three sites. Participants were eligible for inclusion if they were HIV positive over 18 years of age and they provided written consent at time of recruitment. Participants could nominate a caregiver to be invited to participate in the study. For the purpose of this study caregivers were considered unpaid individuals who provide practical, emotional or financial support to the person, such as partners, family members and friends. Initial recruitment was over a four month period in 2012.

Individuals were excluded if they were diagnosed with HIV in the last twelve months; had a preexisting identified cognitive impairment; were experiencing current social chaos or had inadequate English language skills. As depression may confound cognitive symptoms (Woods et al 2009), patients who had current untreated depression were excluded but became eligible once their depression was treated. Current alcohol and substance use was assessed and patients with dysfunctional use were excluded from the study until substance and alcohol use was addressed.

Participants completed a demographic questionnaire and were given the booklet "HIV associated MND: How to recognise signs and symptoms" (Trotter and Cummins 2008). The self assessment booklet was developed by a HIV Psychiatrist and HIV Clinical Nurse Consultants, informed by literature review and professional experience. It was focus group tested for readability, clarity, design, flow and acceptability. The booklet has 36 items grouped into four categories of behaviours: concentration, memory, motor skills and social issues. Additionally the booklet had information in it noting how S&S may be misread as depression, ageing or being more stressed; but not to "panic" as having a clinical review would lead to a definitive diagnosis which could be treated.

Participants and caregivers were provided with the booklet and were asked to reflect on any changes experienced or observed over the last twelve months. If they noted any change in behaviour over the previous twelve months we asked them to respond "Yes" to each relevant item. They were contacted two weeks later via telephone to provide responses to items selected from the booklet.

A file audit was attended to ascertain specific risk factors for cognitive impairment including the participants' HIV viral load, CD4 T cell nadir and current CD4 T cell count. Current medication regimen was noted. The researchers observed the usual standard of care at medical consultations. Initially the researchers asked participants to discuss items identified in the booklet with their doctor during the next consultation. It became apparent that the discussion was not taking place as participants stated they were either "not remembering" to mention issues to the doctor, "did not think it was important" or there "was not enough time". The researchers intervened by transcribing the list of items selected by participant and/or their nominated carer, placing the list in a prominent place in the clinical notes to promote discussion at the next appointment. This resulted in increased discussions of the items selected.

As there was no other PLHIV self-reflective booklet available at the time to use as a guide, the researchers decided selection of four or more items would be flagged with medical practitioner for patient discussion. Previously clinical judgement and incidental anecdotal evidence from PLHIVs was relied on to discuss issues relating to HAND.

All neuropsychological testing was conducted by a trained clinical neuropsychologist. This procedure followed the usual required battery of tests required as a neuropsychological exam. The results were made available for the researchers to ascertain which participants completed the exam and final results. The clinical review process of participants diagnosed with MND was observed for changes in treatment prescribed by their doctor and the outcome of the treatment. Data entry was completed by one member of the team who was not involved in the recruitment process.

STATISTICAL ANALYSES

Data was analysed using SPSS (V21 IBM Corporation Armonk, NYI, USA). Analysis included presentation of descriptive statistics, Chi Square tests, Mann Whitney and Kruskall Wallis tests as indicated.

ETHICS

Ethics submission had been approved by Royal Prince Alfred Hospital Research Ethics Committee (X10-0354+ HREC/10/RPAH/618) and Liverpool Hospital Research Ethics Committee (SSA/11/LPOOL/203) Sydney Australia.

RESULTS

Of 330 people screened for enrolment in the study 165 (50%) were ineligible including 30 (9%) who declined participation. At the suburban hospital site 30 people were not screened for enrolment due to limited staffing issues during study period which impacted on the overall number of participants able to be recruited at that site. Table 1 summarises the exclusion criteria of the 165 ineligible PLHIV.

Table 1: Exclusion criteria of patients excluded

Criteria	Total
New Diagnosis of HIV	12
Pre-existing Ccognitive Impairment	34
Social chaos	16
Poor English	44
Drug and Alcohol Use	16
Current untreated depression	13
Declined	30
Total excluded	165

In total 121 participants and 44 caregivers across the three sites were recruited (table 2).

Table 2: Participants and Caregivers recruited

Participants Recruited	Total
Number of participants	121 (100%)
Number of participants who identified 4 or more S&S	74 (61%)
Number of caregivers	44 (100%)
Number of caregivers who identified 4 or more S&S	25 (57%)

More than one third of participants (39%) noticed some behaviour change in themselves and 28 (23%) were concerned about these changes in behaviour.

The mean age of participants was 49 years old, range 25 to 75years. The median was also 49 age was normally distributed; <40 years (n=25), 41-50 years (n=48), 51-60 years (n=31), 61-70 years (n=16) and >71 (n=1). Sixty one per cent identified four or more S&S and of these four, after further investigation, were diagnosed with HAND but there was no difference in age in those diagnosed with HAND (mean 48) and those without HAND (mean 49) with a p value of 0.845. Ninety six per cent were men (116). Forty nine participants (40.5%) lived alone, 46 (38%) lived with a partner and 24 (20 %) lived in shared households. Two participants lived (2 %) with children.

Depression

Forty eight (39.7%) participants had a history of depression, which is consistent with the prevalence of depression in HIV positive populations (Grierson et al 2009). Thirty two (26.4%) were currently being treated for depression. Those with depression tended to have more symptoms selected from the booklet than those without current depression. P=0.056 Mann Whitney Test.

HIV Information

The median duration of HIV infection of participants was 10 years, range (0 – 29) which indicated the participants had been infected for some time and therefore be at increased risk of developing co-morbid conditions. The CD4 T lymphocyte cell count is a marker of antiretroviral treatment responses and HIV disease progression. The participants' median CD4 count was $590\text{x}10^7$ (10 – 1720) which is within normal limits, indicating that participants have adequate immunity; CD4 nadir count is the lowest it has ever reached and low CD4 nadir count is also a predictor of HAND, the median CD4 nadir was well below normal CD4 count at 180 $\text{x}10^7$ (0 – 750); median prescribed antiretroviral medications therapy was six years (0 – 28).

Risk factors for non-HIV related cognitive impairment

Many PLHIV have co-morbid conditions. A review of participants' clinical notes revealed some risk factors for non-HIV related cognitive impairment were documented in all notes (table 3). Of these factors, none were statistically significant.

Table 3: Identified from clinical notes patient risk factors for cognitive impairment

Current Conditions	Yes	P Mann Whitney	P t test
Hepatitis C virus	10 (8.3%)	0.046	0.159
Hypertension	31 (25.6)	0.443	0.155
Prescribed Antihypertensive drug	29 (24%)	0.734	0.280
Hypercholesterolemia	79 (65.3%)	0.803	0.452
Hyperlipidaemia	61 (50.4%)	0.203	0.406
Sleep Apnoea	5 (4.1%)	0.498	0.361
Diabetes	7 (5.8%)	0.078	0.033
Current smoker	38 (31.4)	0.010 (Kruskal Wallis)	Anova

Antiretroviral medications

Ninety four per cent (114) were currently taking antiretroviral medications. Of these, 30% (n=36) were on a once daily co-formulated single pill regimen, and 33 (n=40) took three or more pills per day.

Eleven percent (n=13) had missed more than two doses of medications in the last month. There was a trend for a higher number of symptoms in the group who were not adhering to their medications P=0.070 Mann Whitney Test.

Caregivers

Seventy seven participants (64%) did not nominate a caregiver to be contacted. Six caregivers declined to be involved. The suburban hospital recruits (n=14) did not identify any caregivers. Of the caregivers identified (n=44), 82% (n=36) were male and 18% (n=8) were female. The relationship of the caregiver to the PLHIV varied: twenty-eight were male same sex partners, six were female partners of men, three were husbands of women, one was a mother, one a son, four were male friends and one was a female friend. Forty two percent (n=15) of the caregivers identified as PLHIV.

The most reported symptoms by both caregivers (47%) and participants (67%) was “being mentally tired at end of day” and caregivers (64%) and participants (67%), “have you noticed you don’t go out socially as much as you used to?”

Neuropsychological examination

Twenty three (31%) of the 74 participants who identified more than four S&S from the booklet were offered clinical neuropsychological examination following consultation and clinical review by their doctor. Seventy percent (n=16) underwent the usual standard battery of tests performed in the clinical neuropsychological examination and 30% (n=7) declined testing (table 4). Four participants (25%) of the 16 that had completed a clinical neuropsychological examination were diagnosed with MND as a result of these examinations.

Table 4: Neuropsychological Exam Results

Number of Neuropsychological exam (n=16)	Results of Neuropsychological exam
5 (31%)	Inconclusive, ongoing monitoring recommended
7(44%)	Within normal limits (1 depression, 1 sleep apnoea)
4 (25%)	MND diagnoses (medication regimen optimised, subsequent improved cognition noted)

DISCUSSION

MND can have a detrimental impact on the health and well-being of PLHIV. As part of the HAND spectrum, MND may be difficult to identify because key signs and symptoms of MND may be subtle and often the PLHIV and their caregivers may believe signs and symptoms are attributable to other issues such as ageing, stress and/or lifestyle factors.

There were no previous studies regarding PLHIV and/or Caregivers' self-reflection of signs and symptoms of cognition to guide us. The researchers chose the identification of four or more symptoms by either participants or caregivers as a cue to monitor subsequent investigations and current standard of care. The 61% of participants and 57% of caregivers who identified four or more symptoms supported adoption of using the booklet to reflect on changes in the participants behaviour.

Caregivers are well placed to notice changes in cognitive behaviour (Glissen et al 2011). Many stated they welcomed being involved in the study and that using the booklet to help reflect on the PLHIVs behaviour enabled them to start a discussion regarding behaviours they had noticed but did not know how to raise with the person. In addition some of the caregivers also identified as PLHIV and this may impact on future support if they as the caregiver also become ill or cognitively impaired.

Many of the participants live alone and did not identify caregivers who may be well placed to notice any changes in cognitive behaviour. At one site, none of the participants identified a caregiver. A majority (70%) of these participants were MSM who were married to women. Their lifestyle did not include HIV culture of gay men in Australia, perhaps best illustrated by one participant "We don't talk about the HIV much, and I sure don't want to mention this". The clinician needs to be more vigilant in asking PLHIV without identified carers about cognition. The combination of PLHIV reflecting regularly on their behaviour and staff with a therapeutic relationship with the PLHIV, including knowing their social situation may combine to improve identification of impairment (as PLHIV may underrate signs and symptoms). As this population age they may become isolated socially (McDonald et al 2013) and the relationship with their clinician may become very important for asking questions about cognition. Discussion of cognition and memory should be incorporated and normalised into an annual review of HIV care, and may result in early detection (Wright and Watson 2012). This may reduce fear and apprehension of results from neuropsychological testing and enhanced discussion of signs and symptoms (several participants declined testing due to fear of the outcome and being labelled cognitively impaired).

Regular reflection by the PLHIV and their caregiver may assist in early interventions for HAND screening and diagnosis. Many of the participants had long standing HIV which may place them at risk of developing HAND even though their HIV was well managed (Antorini et al 2007). The average age of participants was 49 years and as they age they may be at risk of developing co-morbidities such as heart disease which may affect cognitive impairment and may need to be closely monitored for signs and symptoms of cognitive impairment. The greatest co morbidity risk factors for cognitive impairment identified in the participants were vascular risk factors, such as: current nicotine smoking (31%), those with hypercholesterolaemia (65%), hyperlipidaemia (50%), or hypertension (25%) (table 3). These figures point to the need to monitor patients and develop strategies to improve management of co-morbidities such as smoking cessation. In addition successful management of co-morbidities may help improve HAND outcomes (Wright and Watson 2012).

The signs and symptoms of depression may confound MND diagnosis so it is important to screen the PLHIV for this (Grierson et al 2009). Forty per cent of participants in this study had a previous history of depression, 26% were currently being treated for depression and 9% identified signs and symptoms of depression, and so were excluded from the study until reviewed by their doctor. The group who were currently being treated for depression were non-significantly more likely to have S & S of cognitive impairment ($p=0.056$). Many PLHIV were excluded from this study due to current untreated depression, substance use issues and language difficulties. Early detection and treatment of depression, providing assistance with depression and substance issues and developing resources in different languages would support improvement of rates of PLHIV being identified with and treated for MND.

Ninety four per cent of the participants were prescribed antiretroviral medications. Of these 33% were taking more than three antiretroviral drugs. The researchers did not enquire about other medications. Pill burden may be a factor in adherence (Robertson et al 2010; Skinner et al 2009). Eleven per cent had missed > 2 doses of medications in the last month. This group had a non-significantly higher number of items from the booklet (P=0.070).There is a potential for a closed feedback loop whereby the patient with adherence problems may, as a result of the poor adherence, suffer further cognitive decline, leading to further impairment of adherence.

This study enabled some people who would otherwise been missed to be identified and referred for neuropsychological assessment. Using this booklet PLHIV were able to reflect and use the booklet to report to clinicians, leading to neuropsychological testing. Several had their treatments changed by their doctor to a regime that had improved central nervous system penetration and had improvements in cognition when subsequently reviewed (table 4). Thirty per cent of PLHIV offered neuropsychological testing declined. Nurses are well placed to explore the reasons for declining and facilitating understanding of the improved outcomes formal testing could facilitate. The therapeutic relationship between patient and nurse may promote an open conversation, allowing the nurse to provide information to the PLHIV enabling further assessment and investigations.

Initially participants did not divulge items they had noticed from the booklet with their doctor as they did not think it was important, forgot or ran out of time. Nurses are well placed to discuss this with patients prior to their appointment with their doctor, to ask if the person has noticed any recent changes in cognitive symptoms or behaviours. Information from this discussion can be documented and brought to the attention of the doctor prior to the consultation. Nurses can use the booklet to initiate discussion and with regular questioning normalise the issue with the patient. Scheduled annual review of the patient would also be of benefit, utilising the initial documentation as a baseline for noticing changes in behavior and cognition.

LIMITATIONS/CHALLENGES

There were several challenges during this study.

There was no HIV negative matched comparison group for this study. This study was designed to follow the patient through their usual standard of care at the clinic they attended. Future studies could include a comparison group.

As there was no validated self reflective tool available we relied on professional judgement and incidental anecdotal evidence from PLHIVs to discuss issues relating to HAND. The researchers decided to flag if four or more items from the booklet were selected.

The small number of patients diagnosed with HAND (four) limited further analysis particularly in relation to age and further study is needed to clarify if there is a distinction between HAND and other age related neurocognitive or psychogeriatric conditions.

Exclusion of people who had inadequate English language skills made many participants ineligible for the study. Translation of the resource into community languages would assist in recruitment of this group in future.

IMPLICATIONS FOR PRACTICE

Nurses providing care and support to PLHIV should be aware of HAND and what questions to ask, and should further explore patients' experience. A booklet exists which can be used by clinicians, patients and their carers to start a conversation about any signs and symptoms the PLHIV may be experiencing - assisting the PLHIV to reflect on recent changes in behaviour such as memory and concentration problems which could affect their quality of life. Reflection of change may prompt further exploration by their doctor of cognitive decline.

Early recognition and treatment may have a positive impact on the health and well being of the patient by reducing signs and symptoms and restoring independence.

As PLHIVs age and are at risk of developing other diseases of the brain, a HAND diagnosis should be considered in a neurological setting.

CONCLUSION

PLHIV are experiencing signs and symptoms of cognitive impairment which can affect their quality of life. HAND is a diagnosis of exclusion and PLHIV and their caregivers can have a major part in recognising signs and symptoms. Self-reflection is very important, as is reflection from caregivers.

REFERENCES

Atluri, V.S.R., Kurapati, K.R.V., Samikkannu, T. and Nair, M.P.N. 2014. Biomarkers of HIV Associated Neurocognitive Disorders. JSM Biomarkers 1(1):1002.

Antinori, A., Arendt, G., Becker, J.T ., Brew, B.J., Byrd, D.A., Cherner, M., Clifford, D.B., Cinque, P., Epstein, L.G., Goodkin, K., Gisslen, M., Grant, I., Heaton, R.K., Joseph, J., Marder, K., Marra, C.M., McArthur, J.C., Nunn, M., Price, R.W., Pulliam, L., Robertson, K.R., Sacktor, N., Valcour, V. and Wojna, V. E. 2007. Uploaded research nosology for HIV-associated neurocognitive disorders. *Neurology*, 69(18):1789-1799.

Clifford, D.B. and Ances, B.M. 2013. HIV - associated neurocognitive disorder. *Lancet Infectious diseases*, 13(11):976-986.

Cysique, L.A., Vaida, F., Letendre, S., Gibson, S., Cherner, M., Woods, S.P., McCutchan, J.A., Heaton, R.K. and Ellis, R.J. 2009. Dynamics of cognitive change in impaired HIV-positive patients initiating antiretroviral therapy. *Neurology,* 73(5):342-348.

Del Palacio, M., Alvarez, S. and Angeles Munoz-Fernandez, M. 2012. HIV-1 infection and neurocognitive impairment in the current era. *Reviews in Medical Virology,* 22(1):33-45.

Fabiani, S., Pinto, B. and Bruschi, F. 2013. Toxoplasmosis and neuropsychiatric diseases: can serological studies establish a clear relationship? *Neurological Science*, 34(4):417-425.

Fiala, M., Eshleman, A.J., Cashman, J., Lin, J., Lossinsky, A.S., Suarez, V., Yang, W., Zhang, J., Popik, W., Singer, E., Chiappelli, F., Carro, E., Weinand, M., Witte, M. and Arthos, J. 2005. Cocaine increases human immunodeficiency virus type 1 neuroinvasion through remodeling brain microvascular endothelial cells. *Journal of Neurovirology*, 11(3):281–291.

Grant, I. 2008. Neurocognitive disturbances in HIV. *International Review of Psychiatry*. 20(1):33-47.

Gisslén, M., Price, R.W. and Nilsson, S. 2011. The definition of HIV-associated neurocognitive disorders: are we overestimating the real prevalence? *BMC Infectious Diseases*,11:356.

Grierson, J., Power, J., Pitt, M., Croy, S., Thorpe, R., McDonald, K. 2009. HIV Futures 6: Making Positive Lives Count, monograph series number 74, The Australian Research Centre in Sex, Health and Society, Latrobe University, Melbourne, Australia. Page 9-11.

Heaton, R.K., Clifford, D.B. and Franklin, D.R. Jr. 2010. CHARTER Group. HIV-associated neurocognitive disorders persist in the era of potent antiretroviral therapy: CHARTER Study. *Neurology*, 75(23):2087-2096.

Letendre, S.L., Ellis, R.L., Ances, B.M. and Mc-Cutan, J.A. 2010. Neurologic complications of HIV disease and their treatment. *Topics in HIV Medicine*, 18(2):45-55.

McDonald, K., Elliott, J. and Saugeres, L. 2013. Ageing with HIV in Victoria: findings from a qualitative study. HIV Australia, 11(2):July. https://www.afao.org.au/library/hiv-australia/volume-11/vol.11-number-2/ageing-with-hiv-in-victoria-findings-from-a-qualitative-study#.VnCy6jq4ZZQ (accessed 28.10.15).

NSW Ministry of Health Australia. NSW HIV Strategy 2012-2015 Data Report. Quarter 1. Retrieved from http://www.health.nsw.gov.au/endinghiv/Documents/q1-2015-hiv-data-report.pdf on 15/10/2015. (accessed 28.10.15).

Robertson, K.R., Su, Z., Margolis, D.M., Krambrink, A., Havlir, D.V., Evans, S., Skiest, D.J. and for the A5170 Study Team. 2010. Neurocognitive effects of treatment interruption in stable HIV- positive patients in an observational cohort. *Neurology,* 74(16):1260-1266.

Schouten, J., Cinque, P., Gisslen, M., Reiss, P. and Portegies, P. 2011. HIV-1 infection and cognitive impairment in the cART-era: a review. *AIDS*, 25(5):561-575.

Schouten, J., Wit, F.W., Stolte, I.G., van der Valk, M., Geerlings, S.E., de Wolf, F., Prins, M. and Reiss, P. on behalf of the AGEhIV Cohort Study Group. 2012. Comorbidity and ageing in HIV-1 infection: the AGEhIV Cohort Study. Oral abstract. AIDS 2012: XIX International AIDS Conference: Abstract THAB0205. Presented July 26, 2012.

Skinner, S., Adewale, A.J., DeBlock, L., Gill, M.J. and Power, C. 2009. Neurocognitive screening tools in HIV/AIDS: comparative performance among patients exposed to antiretroviral therapy. *British HIV Association HIV Medicine,* 10:246-252.

Thames, A.D., Kim, M.S., Becker, B.W., Foley, J.M., Hines, L.J., Singer, E.J., Heaton, R.K., Castellon, S.A. and Hinkin, C.H. 2011. Medication and finance management among HIV-infected adults: The impact of age and cognition. *Journal of Clinical Experimental Neuropsychology,* 33(2):200–209.

Tedaldi, E.M., Minnitit, N.L. and Fischer, T. 2015. HIV-associated neurocognitive disorders: The relationship of HIV infection with physical and social comorbidities. *Biomed Research International,* (2015).

Tozzi, V., Balestra, P., Murri, R., Galqani, S., Bellagamba, R., Narciso, P., Antinori, A., Giulianelli, M., Tosi, G., Fantoni, M., Sampaolesi, A., Noto, P., Ippolito, G., Wu, A.W. 2004. Neurocognitive impairment influences quality of life in HIV-infected patients receiving HAART. *International Journal STD and AIDS,* 15(4):254-259.

Trotter, G. and Cummins, D. 2008. HIV – Associated MND (Mild Neurocognitive Disorder). How to recognize signs and symptoms. Booklet. Abbott virology.

Valcour, V.G., Shikuma, C.M., Watters, M.R. and Sacktor, N.C. 2004. Cognitive impairment in older HIV-1-seropositive individuals: prevalence and potential mechanisms. *AIDS*, 18(Suppl 1):S79–86.

Woods, P.S., Moore, D.J., Weber, E., and Grant, I. 2009. Cognitive Neuropsychology of HIV-Associated Neurocognitive Disorders. *Neuropsychology Review*, 19(2):152–168.

Wright, E., and Watson, J. 2012. HIV Life Plan Clinical Guide: A clinician's guide to assessing and managing HIV-associated comorbidities. Booklet. ViiV Healthcare. Page 45-53.

Australian undergraduate nursing students' opinions on mental illness

AUTHOR

Rebecca Millar
RN, RMHN, MNurs (MH) (UniMelb), PDip Forensic Behavioural Science (Monash),
PDipNurs (MH) (UniMelb), BNurs (Deakin), PDipLegalPrac (ANU), LLB (VicUni),
Grad. Cert. Tertiary Ed., PhD (Candidate)
Victoria University
McKechnie Street
St. Albans, Victoria, Australia
Rebecca.millar@vu.edu.au

This research was wholly completed and funded by the Author.

KEYWORDS

competencies, forensics, mental health, nursing.

ABSTRACT

Objective
To determine second year Bachelor of Nursing students' opinions on mental illness and relationship with demographic data for the purpose of curriculum development.

Design
The present study is a pilot study for a larger project which will investigate undergraduate nursing student opinions across the duration of their undergraduate degree at an Australian university. The 'Student Opinions of Mental Illness Scale', a 53 point Likert type questionnaire was used in a sample of second year nursing students to investigate their opinions of mental illness.

Setting
Metropolitan nursing school in Victoria, Australia.

Subjects
133 second year undergraduate Bachelor of Nursing students'.

Main outcome measures
Student opinions based on Likert responses.

Results
The study revealed that student experiences, education, employment history of country of birth may impact upon student opinions of mental illness.

Conclusion
Overall, students were found to have a generally neutral opinion about mental illness except in the sub-scale factors of benevolence, mental hygiene ideology and interpersonal aetiology where students held less positive opinions. Knowing the student populations opinions about a subject matter can assist academics to direct and focus their efforts to improve those opinions in those areas.

INTRODUCTION

Background

Many authors have recognised the importance of understanding and recognising students' perceptions of mental illness. A number of studies have also been conducted using an undergraduate nursing population throughout the world, including Jordanian (Hamaideh and Mudallal 2009), Japanese (Takashi et al 2011) and British (Schafer et al 2011) students. Only one study has, however, investigated undergraduate nursing students' opinions about mental illness within an Australian population (Happell 2009). All of these studies again used Likert type scale questionnaires, including the 'Opinions of Mental Illness Scale' created by Cohen and Struening (1962). In all of these studies the researchers consistently found that students' opinions about mental illness improved with increased contact with people with mental illness and/or with more mental health education. Several authors, such as Hamaideh and Mudallal (2009) and Happell (2009), also hypothesised that any negative opinions that remained after training and education, highlighted an opportunity for further curriculum development. The larger study for which this pilot is a precursor, will be the first of its kind to follow a sample of undergraduate nursing students throughout their degree to determine how opinions shift or change and what it is that influences those opinions.

Significance

Research suggests that stress in the learning environment can lead to poor coping skills, subsequently damaging the students' ability to academically perform to the best of their ability (Duffy 2009; Tully 2004). It is important to identify any stress or anxiety experienced by students in order to be able to provide support and assistance, thereby promoting a positive learning experience. Where stress is not managed, students' abilities in the clinical arena may be negatively affected, such as by impairing their interactions with clients and subsequently failing to meet clinical objectives (Duffy 2009; Tully 2004). After recognising this in a population of undergraduate nursing students, Ganzer and Zauderer (2013) developed a program designed to alleviate these stressors and improve the learning experience. Although not studied at an undergraduate student level, negative opinions on mental illness held by health care professionals have been shown to impede upon achieving professional competence in nursing (Crisp 1999).

The findings of this research can be used to inform future mental health nursing curriculum. In particular, the study highlights the need to consider the demographics of the student population and the effect of those demographics on student opinions. This may determine particular areas of learning that require more time allocation or indicate where one method of teaching is required over another (for example the use of real case simulation exercises versus use of theory and written activities). The results of this study will be directly considered when developing the third year mental health unit including designing the course material and delivery methods for each module of learning. The results will also be used to inform the larger project which may in turn inform future curriculum development, particularly in relation to the quantity, timing and content of mental health nursing units.

Aim

This study is a pilot study for a larger project investigating students' attitudes towards mental illness throughout their progression through a three year undergraduate pre-registration nursing degree. This pilot study tested the research design and tools in a smaller population of students. The overall aim of this study was to investigate nursing students' perceptions of mental illness.

Research questions included:

1. What are second year undergraduate nursing students' opinions about mental illness? Do demographic variables affect these attitudes?
2. Does a mental health placement and/or exposure to people with mental illness affect students' opinions about mental illness?
3. What are the limitations or difficulties, if any, of the study design that need to be considered when conducting the larger study?

METHODS

Sample and recruitment

A Victorian University located in Melbourne was chosen as the site for this study. This site was chosen out of convenience. Permission was received from the Universities Human Research and Ethics Committee to conduct the study. All participants were over the age of 18. All participation was voluntary, however participants were offered a small incentive to participate (a chance to go in the draw for movie tickets) in order to promote recruitment. Researcher bias was limited as the participants had no direct contact with the researcher throughout the data collection process, and all completed questionnaires remained anonymous.

A convenience method of sampling was used, with all second year students invited to participate. Due to researcher time pressures, the study was only conducted face to face, with no online option available for participation. No advertising was conducted. Students were invited to participate by their tutors in their acute care tutorial. Recruitment and completion of the study occurred simultaneously, with completion of the questionnaire indicating consent to participate.

Instruments

The study used the 'Opinions on Mental Illness Scale' (Cohen and Struening 1962), which was initially developed to investigate the opinions on mental illness of staff at two large "mental hospitals" in New York. The 53 item questionnaire asks participants for their opinions about mental illness over five dimensions ('factors'): (A) authoritarianism, (B) benevolence, (C) mental hygiene ideology, (D) social restrictiveness, and (E) interpersonal aetiology. The questionnaire is presented in a Likert format with provision following each item for a checked response on a six point agreement continuum.

The validity and reliability correlation coefficients for each of the OMI factors are above 50 in each factor except for Factor D (Cohen and Struening 1962). The authors justified the poorer reliability of Factor D as Factor D having been found to have high validity coefficients and significant demographic correlates, therefore deeming its reliability as 'adequate' for the purposes of meeting the objectives of the tool (Cohen and Struening 1962). The OMI tool has been used on numerous occasions since its development, including for the determination of the opinions of mental illness of undergraduate students from a variety of health related fields (Takashi et al 2011; Probost and Peuskens 2010; Hamaideh and Mudallal 2009).

Data collection and procedure

In the present study, data was collected at the end of semester two, after students had completed their first mental health unit in their nursing degree. Participants were invited to complete the questionnaire at the end of an acute care tutorial and had the option of either completing the questionnaire in class or returning it to a confidential box left available in a shared space of the Nursing building. All data entry and analysis was conducted by the primary researcher using the Statistical Package for the Social Sciences (version 22).

Strengths and weaknesses

The results of this study will only be generalisable to similar student cohorts where similar teaching and learning methods are employed to those used during the study. A significant weakness of this study is the small sample size. A small sample size has the effect of reducing the likelihood that any statistically significant result reflects a true result (Button et al 2013) and therefore limits the reliability of these results. Whilst this limits the ability to reliably apply the results to other cohorts of students, and despite this sample being only 10% of the total of second year nursing students, these results may be used when considering curriculum content requirements for this cohort of students in the future. Again, however, this is further limited as little is known about the representativeness of the sample against the larger population.

The major strength of this study is its ability to be reproduced in a consistent manner. Although the current research design yielded few results, with amendments to the recruitment process and increased flexibility in method of participation, the instrument used continues to appear to be a reliable and efficacious method for determining students' opinions on mental illness.

FINDINGS

Sample and recruitment

A total of 133 students participated in the study. The average participant age was 24 (*SD* 5.4), with more women than men participating (6 men to 27 women). Reflective of the larger student population, participants' places of birth were worldwide (see figure 1). Although the majority of participants were born in Australia, they were 50% more likely to have had both parents born outside of Australia. The majority of students had some form of current employment at the time of completing the questionnaire, with only five participants reporting they were unemployed. Whilst occupations varied, 39% of participants were working in a health care related field, either as a personal care assistant ('PCA') or as an enrolled nurse ('EN') (see figure 2). Participants were not asked the amount of hours they worked or length or employment. Almost half of the participants held a prior health related qualification at a certificate or diploma level (see figure 3).

Figure 1: Country of Birth

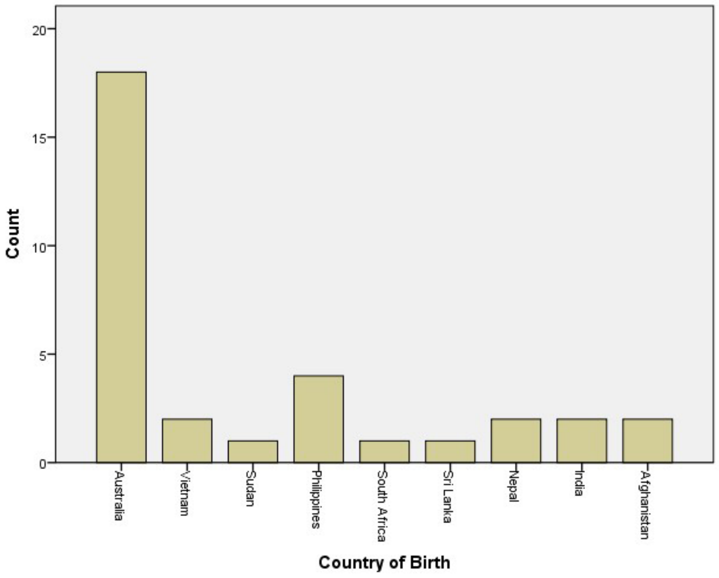


Figure 2: Participants' employment

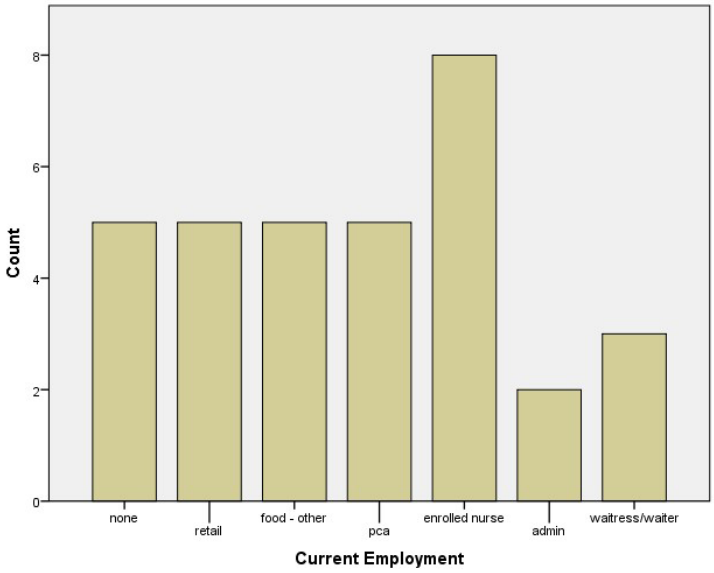
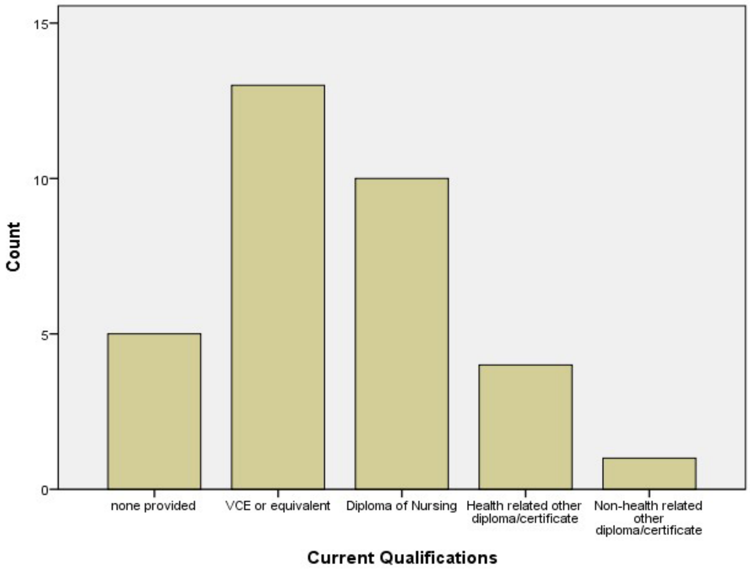


Figure 3: Qualifications



In addition to prior qualifications and prior employment, participants were asked to report their experiences with people with mental illness, including whether they had a family member or friend with mental illness, whether they had had contact with a person with a mental illness over the past year (and the context of that contact) and whether or not they had been on their mental health clinical placement at the time of completing the questionnaire. Whilst all of the students had completed the theory component of the second year mental health nursing unit, only 20% had completed their mental health clinical practice component. Despite this, 88% of participants had had some form of contact with a person with mental illness, although the majority of those were contacts within the clinical placement. Nearly 29% of participants reported having a family member or friend with diagnosed mental illness, however, what kind of mental illness was not asked.

Data analysis

Data was explored for any relationships between demographic data, education and employment experiences (including mental health placement) and opinions of mental illness. The tool used yields five factors: Factor A: Authoritarianism; Factor B: Benevolence; Factor C: Mental hygiene ideology; Factor D: Social restriction; and Factor E: Interpersonal aetiology. The mean scores obtained from participants for each factor are included in table 1. Because on the 6-point Likert scale 1 = *Strongly Agree* and 6 = *Strongly Disagree*, in general, higher scores in a sub-scale indicate a more positive attitude. Low scores (< 3) reflect a generally less positive attitude towards mental illness. Overall, on average participants had neutral to positive attitudes to mental illness, however, those factors which were most positive (factors A & D) had higher standard deviations, indicating low reliability.

Table 1: Opinions on mental illness

Factor	Mean	Standard Deviation
Authoritarianism	3.8005	1.06692
Benevolence	3.2152	0.85737
Mental Hygiene Ideology	3.1185	0.84351
Social Restrictiveness	4.1873	1.69846
Interpersonal Aetiology	3.5498	1.00008

Data was analysed for differences in mean scores dependent on each demographic variable using Independent Samples t-tests calculations (see table 2). On average, younger people (aged 20-29) scored significantly higher in Factors A (M 3.840, SD 0.785) and B (M 3.247, SD 0.735) reflecting more positive attitudes than older participants (A: M 4.750, SD 2.10; B: M 3.70, SD 0.264). Female participants' attitudes were significantly different to male participants' attitudes across all subscales, and were more likely to have more positive attitudes then males. There was a significant effect for country of birth, with those born in Australia found to have significantly more positive attitudes towards mental illness than those born in any other country (M 4.252, SD 1.152). Participant qualifications had no statistically significant effect on opinions whilst employment had a significant effect on factors A (authoritarianism) and E (interpersonal aetiology) only. There appeared to be no statistically significant effects on opinions whether the participant knew a person with mental illness or not (see table 3).

Table 2: Independent Samples t-tests – demographic data

Domain of study	Age		Gender		Country of Birth		Fathers Country of Birth		Mothers Country of Birth	
	t	*p*	*t*	*p*	*t*	*p*	*t*	*p*	*t*	*p*
Factor A: Authoritarian	1.274	0.214	1.138	0.264	2.973	0.006	2.082	0.046	2.564	0.015
Factor B: Benevolence	0.755	0.457	1.050	0.302	1.159	0.255	-0.045	0.964	0.978	0.336
Factor C: Mental Hygiene Ideology	1.595	0.123	0.913	0.368	1.078	0.289	-0.159	0.875	1.192	0.242
Factor D: Social Restrictiveness	1.157	0.258	0.801	0.429	0.855	0.399	0.714	0.481	1.422	0.165
Factor E: Interpersonal Aetiology	-0.766	0.451	0.906	0.372	3.221	0.003	2.066	0.047	2.433	0.021

Table 3: Independent Samples t-tests – Exposure to a person with mental illness

Domain of study	Qualifications		Employment		Mental Health Placement		Person with MI Known	
	t	*p*	*t*	*p*	*t*	*p*	*t*	*p*
Factor A: Authoritarian	-1.714	0.097	-1.827	0.077	-0.617	0.542	0.696	0.491
Factor B: Benevolence	-0.948	0.350	-1.345	0.188	-0.769	0.448	0.729	0.471
Factor C: Mental Hygiene Ideology	-0.271	0.788	-0.225	0.824	1.408	0.169	1.016	0.317
Factor D: Social Restrictiveness	-1.272	0.213	-1.246	0.222	-0.798	0.431	0.021	0.983
Factor E: Interpersonal Aetiology	-1.875	0.070	-2.533	0.017	-2.690	0.011	0.807	0.426

DISCUSSION

Implications for teaching

Knowledge of student demographic.

This study has found that students in their second year of nursing generally have neutral attitudes towards mental illness in relation to benevolence and mental hygiene ideology, but more negative attitudes in relation to authoritarianism, social restrictiveness and interpersonal aetiology. This is consistent with recent literature, which suggests that practicing health professionals hold more negative attitudes towards mental illness than members of the general public (Crisp et al 2000). It is thought, however, that practicing clinicians may hold more negative attitudes due their exposure to and understanding of the reality of mental illness (Jorm et al 1999). Whilst exposure to mental illness was found to have little effect of students' attitudes in the present study, country of birth and age were found to have a significant effect of student attitudes. Although these results may not be reliable due to the small sample size, it does indicate that academics should consider the background of their students when creating and developing curriculum content for teaching mental health nursing.

It has long been accepted in the literature that one's culture can affect their perception of physical and emotional states, interpretation of symptoms, willingness to engage in medical care and treatment as well as the expected response to illness of others around them (Angel and Thoits 1987). In particular, people from Asian cultures have been found to hold quite authoritarian views about treatment of mental illness and tend to be pro- social restrictiveness (Ng 1997), with similar results having been found in the present study. The present study indicates a need to tailor teaching in a manner which may change or improve less positive attitudes towards mental illness that are related to the effects of students cultural backgrounds. Whilst many educational programs have been found to be successful in improving the positivity of students' attitudes towards mental illness, across a variety of health disciplines (Rusch et al 2005; Corrigan et al 2001), the literature often fails to report in detail about the components of those programs that led to its success. It may be that direct academic to academic contact is required or more attention paid to this area of education at mental health and nursing education conferences in order to bring the issue into the open, enabling sharing of recommendations and resources to improve student opinions.

Tailoring teaching.

Students were found to have less positive attitudes towards mental illness in three of the five sub-scales: authoritarianism, benevolence and mental hygiene ideology. Although limited research has been conducted in this area, some authors report negative attitudes to subject matter can have a negative impact on student engagement and learning (Brophy 1983). Whilst further research is required, given that students were found to hold negative opinions about mental illness, this study indicates a need to promote student engagement. Without learning through engagement, students' negative attitudes are likely to continue, further perpetuating the negative opinions and hindering future engagement in a vicious cycle. Fear and anxiety about the subject matter has also been found to limit student engagement. Whilst not directly measured in this study, students who hold more authoritarian and pro- social restrictiveness attitudes towards mental illness may do so out of fear and anxiety.

This study has found that students personal, including academic and professional experiences, can have a significant effect on opinions on mental illness (although not to a statistically significant level). For academics, this is not a surprising finding. Students across all disciplines often report that they learn just as much outside of the classroom as they do inside the classroom (Hu and Kuh 2003; Kuh 1995), so it is not surprising to see these factors affecting students' opinions in this manner. In fact, the effect of out of classroom experiences is evident in the present study's findings of the significance of the effect of a mental health placement on student opinions on mental illness. It is imperative, however, that these less positive attitudes are improved throughout students nursing education. Studies in both health care (Shahrabani and Benzion 2012) and non-healthcare (Holt-Reynolds 1992) environments have found personal attitudes and beliefs can significantly affect professional practice behaviours. Although not investigated in the context of mental health, in theory, a student who holds more authoritarian views on mental illness, for example, may graduate to become a practicing clinician who practises within these attitudes. This may lead to more restrictive interventions with clients or, in the case of factor B (benevolence), treating clients with less empathy and care.

Implications for further study

Although not investigated in this study, teaching activities embedded within mental health nursing units may be designed to consider those factors that can impact on students' opinions on mental illness. Given the diversity of the student population, future studies may wish to use a similar data collection tools in a pre and post intervention method to identify the usefulness of specifically designed classroom activities to improve student opinions about mental illness. Given the significance of cultural background on student opinions, specific focus should be given (either in class or in assessment activities) to explore different cultural understanding of mental illness to draw students attention to this for personal preparation for learning. Consideration should also be given to the design of future similar research, in particular to the need for advertising and flexibility in participation methods to improve recruitment and, subsequently, the reliability of the results.

CONCLUSION

Negative opinions of mental illness have been found to affect students learning and can affect future clinical practice. This study used a quantitative methodology to investigate the opinions of second year Bachelor of Nursing students at a University in Melbourne. Using the 'Opinions of Mental Illness Scale', a total of 133 students participated in the study. Overall, students were found to have a generally neutral opinion about mental illness except in the sub-scale factors of benevolence, mental hygiene ideology and interpersonal aetiology where students held less positive opinions. Knowing the student populations opinions about a subject matter can assist academics to direct and focus their efforts to improve opinions in those areas. Whilst several authors have reported on programs that may assist in improving attitudes towards mental illness, very few sufficiently report on the detail of those programs to enable their reproduction. This study has highlighted an area of need for further investigation into the elements of educational programs that can assist in improving student opinions about mental illness. It is also recommended that this area receive more attention in nursing education forums, as sharing ideas and teaching experiences may improve the teaching and learning experience and, ultimately, improve client care.

REFERENCES

Angel, R. and Thoits, P. 1987. The impact of culture on the cognitive structure of illness. *Culture, Medicine and Psychiatry,* 11(4):465-494.

Brophy, J. 1983. Research on the self-fulfilling prophecy and teacher expectations. *Journal of Educational Psychology, 75*(5), 631-661.

Button, K.S., Ioannidis, J.P., Mokrysk, C., Nosek, B.A., Flint, J., Robinson, E.S. and Munafo, M.R. 2013. Power failure: why small sample size undermines the reliability of neuroscience. *Natural Review of Neuroscience,* 14(5):365-376.

Cohen, J. and Struening, E. 1962. Opinions about mental illness in the personnel of two large mental hospitals. *Journal of Abnormal and Social Psychology,* 64(5):349-360.

Corrigan, P., River, P., Lundin, R., Penn, D., Uphoff-Wasowksi, K., Campion, J., Mathisen, J., Gagnon, C., Bergman, M., Goldstein, H., & Kubiak, M. 2001. Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin,* 27(2):187-195.

Crisp, A. 1999. The stigmatisation of sufferers with mental disorders. *British Journal of General Practice, 49*,3-4.

Crisp, A., Gelder, G., Meltzer, H. and Rowlands, O. 2000. Stigmatisation of people with mental illnesses. *The British Journal of Psychiatry,* 177:4-7.

Duffy, A. 2009. Guiding students through reflective practice - the preceptors experiences: A qualitative descriptive study. *Nurse Education in Practice,* 9(3):166-175.

Ganzer, C. and Zauderer, C. 2013. Structured learning and self-reflection: strategies to decrease anxiety in the psychiatric mental health clinical experience. *Nursing Education Perspectives,* 34(4):244-247.

Hamaideh, S. and Mudallal, R. 2009. Attitudes of Jordanian nursing students towards mental ilness: the effect of teaching and contact on attitudes change. *College Student Journal,* 43(2):335-347.

Happell, B.G. 2009. Nursing students' attitudes to mental health nursing: psychometric properties of a self-report scale. *Archives of Psychiatric Nursing,* 23(5):376-386.

Holt-Reynolds, D. 1992. Personal history-based beliefs as relevant prior knowledge in course work. *Education and Educational Research,* 29(2):325-349.

Hu, S. and Kuh, G. 2003. Diversity experiences and college student learning and personal development. *Journal of College Student Development,* 44(3):320-334.

Jorm, A., Korten, A., Jacomb, P., Christensen, H. and Henderson, S. 1999. Attitudes towards people with a mental disorder: a survey of the Australian public and health professionals. *Australian and New Zealand Journal of Psychiatry,* 33(1):77-83.

Kuh, G. 1995. The other curriculum: Out of class experiences associated with student learning and personal development. *The Journal of Higher Education,* 66(2):123-155.

Ng, C. 1997. The stigma of mental illness in Asian cultures. *Australian and New Zealand Journal of Psychiatry,* 31(3):382-390.

Probost, M. and Peuskens, J. 2010. Attitudes of Flemish physiotherapy students towards mental health and psychiatry. *Physiotherapy, 96*, 44-51.

Rusch, N., Angermeyer, M. and Corrigan, P. 2005. Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry,* 20(8):529-539.

Schafer, T., Wood, S. and Williams, R. 2011. A survey into student nurses' attitudes towards mental illness: Implications for nurse training. *Nurse Education Today,* 31, 328-332.

Shahrabani, S. and Benzion, U. 2012. How experience shapes health beliefs. *Health Education Behaviour,* 39(5):612-619.

Takashi, Y., Semba, T., Sudo, A., Takahasi, N., Nakamura, H., Yoshimura, K., Koyama., H., Ishigami, S., & Takeshima, R. 2011. Effects of psychiatric training on nursing students' attitudes towards people with mental illness in Japan. *International Journal of Social Psychiatry,* 57(6):574-579.

Tully, A. 2004. Stress, sources of stress and ways of coping among psychiatric nursing students. *Journal of Psychiatric and Mental Health Nursing,* 11(1):43-47.

Victoria University Bachelor of Nursing. (n.d.). http://www.vu.edu.au/courses/bachelor-of-nursing-hbnb (accessed 14.02.14).

A review for Australian nurses: Cannabis use for anti-emesis among terminally ill patients in Australia

AUTHORS

Alex Chan
RN, BN, MN, MEd
Lecturer, University of Tasmania, School of Health Sciences, Darlinghurst, NSW, Australia
a.chan@utas.edu.au

Luke Molloy
RPN, MN (Hons)
Lecturer, University of Wollongong, School of Nursing, Shoalhaven, NSW, Australia
lmolloy@uow.edu.au

Joy Pertile
RN, MN, APN (USA)
Lecturer, University of Tasmania, School of Health Sciences, Darlinghurst, NSW, Australia
Joy.Pertile@utas.edu.au

Miguel Iglesias
BSc, MSc, PhD
Lecturer, University of Tasmania, School of Health Sciences, Darlinghurst, NSW, Australia
Miguel.Iglesias@utas.edu.au

KEY WORDS

Medicinal cannabis; symptom management; antiemetic drug; nursing care; palliative care; cannabinoids.

ABSTRACT

Objective

The objective of this article is to describe the potential benefits of medicinal cannabis in emesis control and the position of nurses looking after palliative patients who are on medicinal cannabis treatment in Australia.

Setting

Palliative care

Primary argument

Cannabis is the most commonly abused drug and its use for medical purposes was restricted throughout the world since the early 20th century. However many clinical studies show that the natural cannabinoid compounds can stimulate the cannabinoid receptors in the brain leading to attenuation of signal transmission, resulting in alleviation of the vomiting stimuli. The debate about the use of cannabis as an anti-emetic agent in patients with life-limiting conditions has renewed interest in recent years. The principle of palliative care is to improve the quality of life of patients living with life-limiting conditions based on the best evidence available. Although some evidence suggests cannabis may have therapeutic effects on some palliative patients and the Australian Commonwealth Government has recently changed the legislation, the concept of using medicinal cannabis in emesis control is very new to many Australians including the health care providers.

Conclusion

In comparison to conventional medications, medicinal use of cannabis in palliative care is a new phenomenon and nurses as well as general public may be less prepared for the use of cannabis as a medical modality in all clinical settings. This review is intended to raise awareness of the physiological mechanism of cannabis and its medicinal use to the nurses in Australia.

INTRODUCTION

The concept of cannabis use in medicine is not new and it can be tracked back to ancient times (Borgelt et al 2013). In the early 20th century, there was a rise in its use for the euphoric effects. As a result, cannabis became a prohibited drug and its use for medical purposes was also restricted around the globe (Alexandre 2011). However many clinical studies show that the natural cannabinoid compounds can stimulate the cannabinoid receptors in the brain leading to attenuation of signal transmission, resulting in alleviation of the vomiting stimuli (Sharkey et al 2014; Borgelt et al 2013; Johannigman and Eschiti 2013). The debate about the use of cannabis for medical purposes has remerged in recent years. Currently, the use of synthetic cannabis for certain medical conditions has been legalised in Canada, New Zealand, eight European countries and 23 states in the United States of America and Washington DC (Penington 2015;Borgelt et al 2013). In Australia, the amendment of the Narcotic Drugs Act 1967 (Cth) in February 2016 allows the cultivation and access of cannabis for medicinal and scientific uses by licensed individuals.

This literature review aims to describe the potential benefits of medicinal cannabis in emesis control and provides an overview of the current legislation and the position of nurses caring for patients who decide to use medicinal cannabis in Australia.

Method of review

The literature search was undertaken in three electronic databases; PubMed, CINAHL and MEDLINE in October 2015. The various combinations of search terms cannabis, humans, vomiting, anti-emetic agent, dronabinol, nabilone, cannabinoid receptors, medicinal cannabis, legislation, laws, Australia, palliative care and health care providers aimed to capture the articles in relation to the medicinal use of cannabis as an anti-emetic agent. In addition, reference lists from the articles were also used to identify the relevant literature for this review.

Effects of cannabis in humans

Emesis is a complex neurological reflex leading to ejection of possibly poisonous material from the gastrointestinal tract, and nausea serves as an unconditioned stimulus to learn that the particular food should be avoided in the future (Sharkey et al 2014). Since neural control of nausea and emesis uses the endocannabinoid system, use of cannabis as an antiemetic could be justified for its stimulation of the endocannabinoid system.

The vomiting centre consists of several brainstem nuclei that receive input from the gastrointestinal tract or from brain areas that continuously monitor the blood for noxious chemicals. Stimulation of these areas leads to the complex motor reflex that causes retching and emesis to eject from the body the possible source of poisoning (Horn 2008). These areas contain cannabinoid receptors CB1 and CB2 (Sharkey et al 2014; Mackie 2005). Stimulation of receptors by natural cannabinoids (endocannabinoids: 2-arachidonoglyerol and anandamide) leads to attenuation of signal transmission, resulting in alleviation of the vomiting stimuli (Sharkey et al 2014).

It is through the stimulation of cannabinoid receptors in these areas that consumption of cannabis exerts its anti-emetic effects, a well-known effect of cannabis consumption that continues to draw people with chronic nausea to its use. The most abundant cannabinoid in cannabis, Δ9-Tetrahydrocannabinol (THC), is a partial CB1 agonist that when administered to cancer patients, supress the experience of nausea and vomiting (Voth and Schwartz 1997). It is the most abundant but also most psychoactive derivative of cannabis. The other important active molecule, cannabidiol (CBD), is a non-psychoactive cannabis derivative that has not been investigated for its antiemetic properties, but appears to potentiate the antiemetic properties of THC when administered in a 1:1 ratio (Sharkey et al 2014).

Nausea, as the sensation that precedes vomiting, is less well understood. Nausea centres reside in the forebrain, but activation of insular cortex during nausea links this area to the vomiting (Sharkey et al 2014). The insular cortex contains CB1 receptors (Mackie 2005), making it susceptible to the inhibitory effects of endocannabinoids and plant-derived cannabinoids, giving the latter the anti-nausea properties.

While the above makes cannabis or its derivatives suitable antiemetic alternatives, the presence of cannabinoid receptors is not limited to the vomiting and nausea centres (Mackie 2005). Other neurological effects of cannabis use are mild euphoria, sedation, relaxation, hunger and sensory input enhancement, making it a drug for ‘recreational use’, despite other non-desirable effects such as impaired attention, balance, cognition, judgement, memory and sense of time, as well as anxiety, disorientation, paranoia and psychosis (Borgelt et al 2013). These effects reflect the widespread presence of cannabinoid receptors in the brain, making all of them susceptible of stimulation by externally supplied cannabinoids.

Despite these undesirable effects, there is potential use of cannabis use in a medical context, specifically in palliative patients suffering from chronic terminal illnesses. While cannabis can cause addiction, it is ranked less addictive than tobacco, alcohol and another antiemetic drug also used for recreational purposes, ketamine (Nutt et al 2007). Furthermore, the physical harm caused by cannabis, both acute and chronic, is also ranked below these three substances (Nutt et al 2007). The benefit of nausea and emesis suppression in the late stages of life may outweigh the risk of addiction or psychosis.

It is important to note that the active cannabinoids concentration may vary up to three-fold in different strains (Borgelt et al 2013; Barni-Comparini et al 1984). Therefore, determining the dose and route of administration can pose several problems. To add complexity, the route of administration determines both absorption time, from a few minutes for smoked THC, to 30 minutes for oral THC. In addition, the bioavailability ranges from 2-56% for smoked THC and 5-20% for oral THC with a peak concentration reached anywhere between one and three hours after ingestion (Huestis 2007). The two variables of quality and route administration make titration very difficult in individual patients, when also considering the possible co-morbidities such as respiratory deficiencies that would contraindicate smoked cannabis, or gastric problems that delay oral absorption.

CURRENT MEDICINAL CANNABIS LEGISLATION IN AUSTRALIA

The Narcotic Drugs Amendment Bill 2016 (Cth) facilitates the production of medicinal cannabis products for specified patients under clinical care in Australia. Access to any cannabis products manufactured under this national licensing scheme is the joint responsibility, with supply being controlled by provisions under the Therapeutic Goods Act 1989 (Cth) working in conjunction with State and Territory drugs and poisons legislation.

An interim decision by the Therapeutic Goods Administration’s Advisory Committee on Medicines Scheduling has rescheduled medicinal cannabis from a Schedule 9 to Schedule 8 (Therapeutic Goods Administration 2016). This means medicinal cannabis is available for clinical care, with restriction on the cultivation, manufacturing, supply, distribution, possession and use to reduce abuse and misuse. At the time of writing, both Poisons and Therapeutic Goods Amendment (Designated Non-ARTG Products) Regulation 2016 in New South Wales and Access to Medicinal Cannabis Act 2016 in Victoria allow restricted access to medicinal cannabis produced under this national licensing scheme once it becomes available. Other states and territories are currently in the process of developing legislation and schemes covering restricted access.

The position of Australian nurses caring for patients on medicinal cannabis treatment

The principle of palliative care is to improve the quality of life of patients living with life-limiting conditions based on the best evidence available (World Health Organization 2015). Although some evidence suggests cannabis-based drugs, including dronabinol and nabilone, may have therapeutic benefits for some patients with life-limiting conditions (Philipsen et al 2014; Green and De-Vries 2010), medicinal cannabis in emesis control is a very new treatment option available for Australians. In principle, nurses should act lawfully and comply with the professional standards as set out by the Nursing and Midwifery Board of Australia when caring for patients with life-limiting conditions who are using or want to use cannabis as a treatment modality for symptom management. In addition, nurses should:

- support the evidence based practice and clinical research in medicinal cannabis. The non-medicinal use of cannabis and its negative effects on humans have been well documented since 1930s, but its pharmaceutical effects, in particular, the long-term medicinal benefits have not yet been adequately explored (Philipsen et al 2014; Green and De-Vries 2010);
- be aware of and keep up-to-date with the changes in legislation and regulations in the medicinal use of cannabis. The regulations may be changed when more scientific evidence about its beneficial medical effects on humans becomes available in the near future;
- keep the patients and their carers informed and educated about the legislative change and therapeutic efficacy of cannabis. Under any circumstances, patients have the right to make informed decisions about their health care (Johannigman and Eschiti 2013);
- be involved in the review of the suspected risk in its clinical use (Johannigman and Eschiti 2013); and
- respect and support the patients who have chosen to use cannabis for symptom management such as anti-emesis (Philipsen et al 2014).

CONCLUSION

Overall, in the context of palliative care, it is clear that patients with life-limiting conditions should receive the optimal treatments in order to improve their quality of life. In comparison to conventional medications, the use of medicinal cannabis in emesis control is a new phenomenon in palliative care. The information available in relation to the long-term therapeutic effects of cannabis and the contraindication with other drugs is very limited. Further research is required to explore the needs of patients who use medicinal cannabis for anti-emesis and their experience in receiving cannabis treatment in Australia.

REFERENCES

Alexandre, C.R. 2011. The Rhode Island Medical Marijuana Program: An Exploratory Study. *Policy, Politics & Nursing Practice,* 12(2):104-113.

Barni-Comparini, I., Ferri, S. and Centini, F. 1984. Cannabinoid level in the leaves as a tool for the early discrimination of Cannabis chemiovariants. *Forensic Sci Int,* 24(1):37-42.

Borgelt, L.M., Franson, K.L., Nussbaum, A.M. and Wang, G.S. 2013. The Pharmacologic and Clinical Effects of Medical Cannabis. *Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy,* 33(2):195-209.

Green, A.J. and De-Vries, K. 2010. Cannabis use in palliative care - an examination of the evidence and the implications for nurses. *Journal Of Clinical Nursing,* 19(17-18):2454-2462.

Horn, C.C. 2008. Why is the neurobiology of nausea and vomiting so important? *Appetite,* 50(2-3):430-434.

Huestis, M.A. 2007. Human Cannabinoid Pharmacokinetics. *Chemistry & biodiversity,* 4(8):1770-1804.

Johannigman, S. and Eschiti, V. 2013. Medical Use of Marijuana in Palliative Care. *Clinical Journal of Oncology Nursing,* 17(4):360-362.

Mackie, K. 2005. Distribution of cannabinoid receptors in the central and peripheral nervous system. *Handbook of Experimental Pharmacology,* 168:299-325.

Nutt, D., King, L.A., Saulsbury, W. and Blakemore, C. 2007. Development of a rational scale to assess the harm of drugs of potential misuse. *Lancet,* 369(9566):1047-1053.

Penington, D.G. 2015. Medical cannabis: Time for clear thinking. *Medical Journal of Australia,* 202(2):74-76.

Philipsen, N., Butler, R.D., Simon-Waterman, C. and Artis, J. 2014. Medical Marijuana: A Primer on Ethics, Evidence, and Politics. *Journal for Nurse Practitioners,* 10(9):633-642.

Sharkey, K.A., Darmani, N.A. and Parker, L.A. 2014. Regulation of nausea and vomiting by cannabinoids and the endocannabinoid system. *Europeann Journal of Pharmacology,* 722:(134-146).

Therapeutic Goods Administration. 2016. *Interim decision and reasons for decision by delegate of the Secretary to the Department of Health*. Canberra.

Voth, E.A. and Schwartz, R.H. 1997. Medicinal applications of delta-9-tetrahydrocannabinol and marijuana. *Annals of Internal Medicine,* 126(10):791-798.

World Health Organization. 2015. *Palliative care is an essential part of cancer control*. WHO: Geneva. http://www.who.int/cancer/palliative/definition/en/ (accessed 14.01.15).

Promoting student belongingness: 'WANTED' - the development, implementation and evaluation of a toolkit for nurses

AUTHORS

Chris King
RN BSc(Hons), PhD Candidate
Unit Coordinator, Training Centre for Subacute Care WA
Fremantle Hospital, Frementle, Western Australia
Cking2@iinet.net.au

Dr Kylie Russell
BN, MHSc (Ed) PhD
University of Notre Dame, Moat Street Fremantle
Western Australia
kylie.russell@nd.edu.au

Assoc Professor Caroline Bulsara
BA(Hons), GradDipEd Studies, PhD
University of Notre Dame, Moat Street, Fremantle,
Western Australia
caroline.bulsara@nd.edu.au

KEY WORDS

Belongingness, clinical environment, toolkit, nurses, student nurses, Delphi method.

ABSTRACT

Objective

Literature suggests that the need to belong influences health and well-being, behavioural, emotional and cognitive responses. This paper describes the impending development and validation of a toolkit for nurses to create the experience of belongingness with a team approach, for student nurses undertaking a clinical placement.

Setting and Subjects

The design of the toolkit will be developed from a selected Delphi panel process involving nursing experts' experience and opinions. The toolkit will then be distributed to nurses in selected clinical areas for use during periods of clinical placements.

Primary Argument

Clinical placements are essential for professional socialisation in which nurses provide compelling role models for how to think, feel and act. However, students have often identified a sense of alienation through poor clinical experiences. The need to belong and be part of a team exerts a powerful influence on cognitive processes and behavioural responses. The absence of meaningful interpersonal relationships can result in failure to develop optimal clinical reasoning and critical thinking skills to manage patient care safely.

Conclusion

More needs to be achieved than to simply justify the core attributes of a good clinical learning environment. Understanding of the key role that clinical leaders and supervisors exert to create a belongingness environment can influence positively the attitude of other staff towards students. For a valued positive clinical learning experience to become the benchmark of best practice, it requires a structured process, a toolkit to enable nurses to comprehend the concept of belongingness and to support them in embedding this model into their role of supervision.

INTRODUCTION

A positive clinical learning environment is essential to effectively provide the opportunity for students to integrate theoretical knowledge into nursing care. In preparing them for a practice-based profession, many complex issues influence their learning experiences, not least the attitude and empathy that clinical nurses have towards supporting the nurse/student relationship. While numerous evidence exists on the experiences of nursing students which range from supportive to challenging and concerning, the focus of this research is to develop practical strategies in the form of a toolkit which will assist registered nurses to actively engage in managing the clinical learning environment in a positive manner. The purpose built toolkit can be described as a suite of interactive strategies, resources and processes designed for and around key activities such as orientation, legitimisation of the student role and informal social inclusion strategies that will guide nurses in providing an effective, sustainable and inclusive environment both now and into the future.

BACKGROUND

The challenges confronting the Australian healthcare system are widely acknowledged in many global publications and included among other things, an ageing population and workforce with a constricting labour market. More advanced technical and medical possibilities and limited financial resources are emerging global trends. The identified problem of attrition in nursing student programs has raised international anxiety for the future and the workforce development targets (Hamshire et al 2012; HealthWorkforceAustralia 2012).

Health Workforce Australia (HWA) Act in 2009, identified as one of its functions, a need to provide other support for the delivery of clinical training for the purposes of the health workforce (HWA WA Act 2009). The Clinical Supervisor Support Program Discussion Paper for Health Professionals (Health Workforce Australia 2010) confirmed that whilst health and education establishments were endeavouring to achieve appropriate placements, there was still remaining confusion regarding the role of the supervisor leading to, in some cases, a less than acceptable environment. An integral initiative for improvement proposed was the implementation of effective supervision through support and education for all staff.

Hospitals are sociologically rich places with a complexity of cultures which are often hard to understand for the outsider and even harder to change. Price (2009) maintains that early socialisation experiences, such as exposure to romanticised views of nursing, may cause angst for many students as assumptions and expectations of their chosen profession are not realised in actual practice. Specifically, there is often a mismatch between perceived and preferred expectations resulting in lost opportunities to engender safe practice, to build sound clinical judgement and to thereby develop professional identity.

Brown et al (2011) maintain there has been limited research evaluating the clinical learning environment (CLE) from the holistic approach of relating the perspective view of students. Instead the literature concentrates repeatedly on the significance of the immediate environment in how and what students do (Henderson et al 2012). However, O'Mara et al (2014) found that whilst interviewing students, two main sources of concern were identified in the CLE. One area of concern was the relationship with others and the challenge for students this presents in building a bond with the clinical staff. The second challenge identified was the context in which their learning experiences occurred; the timing, the amount and type of clinical experience which impacts on their learning and on them as individuals. Conversely, elements identified that were highly valued by the students as being positive for a successful clinical placement were a receptive welcome, appreciation, autonomy and recognition, support, and quality of supervision (Brown et al 2011).

DISCUSSION

Supportive learning relationships are key for nursing students to feel they have a place in the team. This not only includes the supervisor/supervisee relationship but also a sense of group belonging within the clinical environment (Henderson et al 2012). Findings from focus group interviews throughout the literature suggest students who are supported with a positive attitude are able to support each other in clinical placements and can thereby reduce feelings of social isolation, reduce feelings of incompetence and actively create a heightened sense of readiness (Christiansen and Bell 2010). The absence of meaningful interpersonal relationships has been identified as a barrier to developing higher order clinical skills amongst students. Levett-Jones et al (2007) maintain this can lead to an increase in associated behaviours such as unquestioning agreement with another's decision and resulting in failure to develop clinical reasoning and critical thinking skills to manage patient care safely.

Success for improved clinical placement experiences is dependent upon a number of factors, one of which is the development of effective interpersonal relationships between all stakeholders (Levett-Jones 2007). Further research is required to explore methods to support and recognise the need of registered nurses in their supervision role and that belongingness needs to be actively fostered before valuable and prospective members of the healthcare community are lost to other professions (Levett-Jones et al 2008).

A recent report by the Department of Health Victoria (Victoria, DOH 2014) indicated that clinical staff required both clear instruction and tools to assist them in their supervisory role. While there is an awareness of accountability and responsibility for students by nurses generally, the role appears to be understood in varying degrees. Hence there is potential significance in designing a relevant and practical 'belongingness' toolkit. Despite substantial past research into student clinical learning environments, specific studies from the psychological educational perspective are very limited. Many researchers agree that more needs to be done than simply justify the key attributes of a good clinical learning environment (Chan 2001).

Recommendations for practice have been proposed by Levett-Jones and Lathlean (2009) for ascent to competence. They maintain the key role for clinical leaders and supervisors is to create an environment of belongingness and to influence positively the attitude of other staff towards students. This approach will thereby promote dialogue and debate on professional issues. However, from the health professional's perspective, belongingness is not clearly defined, nor understood. A common example is demonstrated in the practice of orientation before the start of a clinical placement. Often much time and effort is placed on the orientation process in many organisations, however this process is often based around the physical environment and not the psychosocial one, which could promote a sense of belongingness to the organisation. Therefore providing a purpose driven toolkit based on current research could encompass activities that will support busy staff, lead to a student-friendly culture and enhanced satisfaction and morale (Cleary and Walter 2010).

THE FRAMEWORK OF A 'WANTED' TOOLKIT

Welcome – legitimisation of the student role

Attitude – compassion for self and students

Nurture – encourage sociable exchange

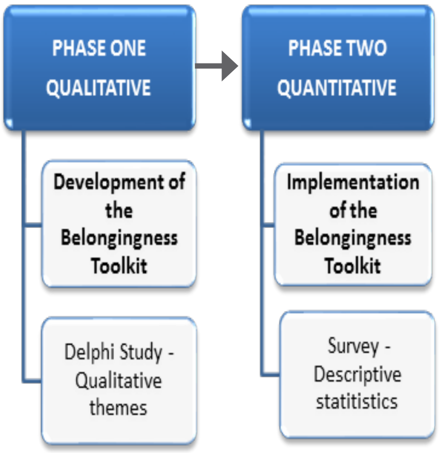
Talk – involve in ward and work discussion

Encourage – appropriate autonomy for completion of tasks

Delight - in a supportive relationship and success

This framework is the foundation on which it will be possible to build a research based, creative and realistic method of how best to support nurses creating a belongingness environment. In the course of the design of this toolkit, both qualitative and quantitative methods will have been used as a mixed method model, which will provide a more holistic approach. This methodology will deliver wider exploration of the social, philosophical and ethical issues related to belongingness in clinical placements and will encourage the use of one type of investigation to inform the development of another. In comparison to previous work based on the learning environment in which the value of the studies lay in the resulting implications for nursing education (Levett-Jones and Lathlean 2009; Chan 2001), this methodology will go one stage further to produce a practical instrument whose value could be in supporting the provision of better educational experiences and environment.

Figure 1: Sequential Mixed Methods Design (Creswell et al 2011)



For the initial stage of this study the Delphi technique was employed for the collection of expert opinion to refine assumptions, options and supporting evidence within given areas (Wilkes et al 2010). The aim was to achieve convergence of opinion for tool development and then attempt to address what could/should be in creating an environment of belongingness. The Delphi technique has been used previously for the development of assessment tools in health (Biondo et al 2008).

The panel for the Delphi method consisted of a number of subject-matter experts. The criteria for deciding who was the most appropriate did not only rest on knowledge of the subject, but also personal experiences, which is essential to understanding the socialisation of the nursing culture. An inclusion criteria checklist was created to identify potential experts for the Delphi panel both nationally and internationally (with an understanding of Australian education and health care practices). A comprehensive report of the collective data and a template for the toolkit will be prepared and submitted to the panel for feedback.

The design of the toolkit is based on the findings from the Delphi study which involved a panel of eighteen experts. From three rounds of questionnaires that were conducted over a six month period using a survey tool and qualitative software, nine major themes have emerged. These have proved to be similar to the views expressed by students in the literature identifying a positive learning environment. These themes have been used to develop the framework. However, the useability and sustainability can only really be assessed over a period of time by those trialling the WANTED toolkit prototype. This will require surveys using pre and post implementation questionnaires. Using descriptive statistics to summarise the pattern of responses of participants will indicate the overall performance of the toolkit in the selected clinical areas. It would be ideal for the pre questionnaire to include demographic details such as age, sex, designation (EN/RN/CN), years of nursing and nursing education (university/hospital based). This could provide further analysis of findings against these demographic parameters which, may provide interesting findings and ramifications for the future and support the successful expansion of the toolkit into other clinical areas.

Given that nurses are often time poor and may be supporting students on a continual basis throughout the year, serious consideration must be given to ensuring this initiative does not add to further paperwork or load. Instead by putting strategies into place that will enable the student to become more autonomous it could reverse the role so the student is supporting the nurse, facilitating the development of trust.

CONCLUSION

There is considerable evidence that many students have experienced poor clinical placements, where they did not establish a rapport with the clinical team and were treated disrespectfully (Hamshire et al 2012). Much has been written in psychosocial research identifying the consequences of exclusion from groups. Society usually associates hospitality with culture, a social practice, a more personal quality to be admired. However in our western culture individualism and the need to feel safe and secure from a perceived hostile environment seems to be a priority that translates into our work through exclusion, or fear of involvement. Conversely important behaviour activities of cooperation and maintaining harmonious relationships within the group do allow a greater success rate in all areas of life.

A popular definition of belongingness (Levett-Jones et al 2007) is described as the need to be and the perception of being involved with others at differing interpersonal levels, a need for self-esteem which contributes to one's sense of connectedness. However from students' perspectives described in the literature it is apparent they are often overwhelmed by the magnitude of their surroundings in the health care setting, but are compelled to integrate and belong. This unfortunately often proves difficult and impacts on their ability to become competent (Levett-Jones et al 2008). It is therefore evident from previous research that in order to function effectively a sense of belongingness is a prerequisite of successful professional and clinical development. Nonetheless and perhaps regrettably, from a nurse/student perspective, belongingness is not clearly understood by many clinicians.

The art of creating belongingness in the clinical environment is to discover the means and new possibilities for staff to encourage students to be part of their community or team. A positive learning experience can only be gained through not complex, but simple principles that should be part of daily life. The strong need to 'belong' has been recognised by early societies who lived in environments where survival and the continuation of the next generation were reliant on cooperative group members. This concept is no less important for the nursing profession. Therefore, when looking for a practical solution, straight forward strategies are often the most effective. The problems are known, solutions are needed.

Ultimately, the focus of this paper is not to establish if belongingness is necessary for enabling learning to take place, as this has been identified and documented extensively. The focus is rather to explore and pilot an initiative to address the problem. The challenge is the wider investigation of the social, philosophical and ethical issues related to belongingness in clinical placements and establishing a toolkit that will have useability and sustainability to embed the key attributes of a good clinical learning environment into all clinical placements.

A qualitative study approach can be beneficial and improve understanding through the investigation of the underlying complex phenomenon of belongingness. Although this approach does not offer the rigour of clinical hypothesis testing, nonetheless it is a technique developed to facilitate deliberation on a problem, providing scientific methodology to aggregate informed opinion. Therefore every effort will be made to ensure that the toolkit will become the benchmark of best practice and that it will provide the key prerequisites for clinical leaders and supervisors to create a belongingness environment and to influence positively the attitude of other staff towards students.

RECOMMENDATIONS

Although quality supervision is the key, nonetheless, it is still challenging for many nurses regardless of the fact they may have numerous years of clinical expertise. Indeed many supervising nurses, have very little or no teaching experience to be able to appropriately support the student (Carrigan 2012). Continuing to maintain learning on a day to day basis will be reinforcing and requires questioning, feedback, guidance, shared discussion and problem-solving. This has already proven to be worthwhile as increased time and energy spent in the initial development of the students produces positive long term benefits, not only to the clinical areas but also to the profession.

It is recommended that further research be undertaken after the results from the pilot studies have been collated identifying the usability and sustainability. This further research could be a longitudinal study to identify if there has been a significant change in the attitudes and behaviours of nurses to create an environment of belongingness and its influence on student learning.

REFERENCES

Biondo, P.D., Nekolaichuk, C.L., Stiles, C., Fainsinger, R. and Hagen, N.A. 2008. Applying the Delphi process to palliative care tool development: lessons learned. *Supportive Care in Cancer,* 16(8):935-942.

Brown, T., Williams, B., McKenna, L., Palermo, C., McCall, L., Roller, L., Hewitt, L., Molloy, L., Baird, M. and Aldabah, L. 2011. Practice education learning environments: The mismatch between perceived and preferred expectations of undergraduate health science students. *Nurse Education Today* 31(8):22-28.

Carrigan, C. 2012. A Clinical Issue: training our future nurses. *Australian Nursing Journal,* 20(2):22-25.

Chan, D.S.K. 2001. Development of an innovative tool to assess hospital learning environments. *Nurse Education Today,* 21(8):624-631.

Christiansen, A. and Bell, A. 2010. Peer learning partnerships: exploring the experience of pre-registration nursing students. *Journal of Clinical Nursing,* 19(5-6):803-810.

Cleary, M. and Walter, G. 2010. Teaching and learning “on the run”: ready to use toolkits in busy clinical settings. *Journal of Continuing Education in Nursing*, 41(6):244-245.

Creswell, J.W., Klassen, A.C., Plano Clark, V.L. and Clegg Smith, K. 2011. Best Practices for Mixed Methods Research in the Health Services (pp. 1 - 37): Office of Behavioural and Social Sciences Research (OBSSR) of the National Institues of Health (NIH).

Hamshire, C., Willgoss, T. and Wibberley, C. 2013. Should I stay or should I go? A study exploring why healthcare students consider leaving their programme. *Nurse Education Today*, 33(8):889-895.

Health Workforce Australia Act 2009 (NO. 72, 2009) - SECT 3

Health Workforce Australia. 2010. *Clinical Supervisor Support Program- Discussion Paper*. Adelaide.

Health Workforce Australia. 2012. *Health Workforce 2025: Doctors, nurses and midwives*. Adelaide.

Henderson, A., Cooke, M., Creedy, D.K. and Walker, R. 2012. Nursing students’ perceptions of learning practice environments: A review. *Nurse Education Today*, 32(3):299-302.

Levett-Jones, T. 2007. *Belongingness: a pivotal precursor to optimising the learning of nursing students in the clinical environment,* (PhD.), Newcastle, NSW.

Levett-Jones, T. and Lathlean, J. 2009. The Ascent to Comptence conceptual framwork:an outcome of a study of belongingness. *Journal of Clinical Nursing*, 18(20):2870-2879.

Levett-Jones, T., Lathlean, J., Higgins, I. and McMillan, M. 2008. Staff-student relationships and their impact on nursing students belongingness and learning. *Journal of Advanced Nursing,* 65(2):316-324.

Levett-Jones, T, Lathlean, J., McMillan, M. and Higgins, I. 2007. Belongingness: A montage of nursing students’ stories of their clinical placement experiences. *Contemporary Nurse: A Journal for the Australian Nursing Profession,* 24(2):164-174.

O’Mara, L., McDonald, J., Gillespie, M., Brown, H. and Miles, L. 2014. Challenging clinical learning environments: Experiences of undergraduate nursing students. *Nurse Education in Practice,*14(2):208-213.

Price, S. 2009. Becoming a nurse: a meta study of early professional socialization and career choice in nursing. *Journal of Advanced Nursing,* 65(1):11-19.

Victoria. Department of Health. 2014 *Delegation and supervision guidelines for Victorian nurses and midwives.* Melbourne Victoria.

Wilkes, L., Mohan, S., Luck, L. and Jackson, D. 2010. Development of a violence tool in the emergency hospital setting. *Nurse Researcher,* 17(4):70-82.

The impact of clinical placement model on learning in nursing: A descriptive exploratory study

AUTHORS

Professor Melanie Birks
RN, PhD, FACN
Head – Nursing, Midwifery and Nutrition
Centre for Nursing and Midwifery Research
Nursing, Midwifery & Nutrition College of Healthcare Sciences,
James Cook University, Townsville, Queensland, Australia
melanie.birks@jcu.edu.au

Tracy Bagley
RN, BNSc
Manager Student Placement, Division of Tropical Health & Medicine, College of Healthcare Sciences
James Cook University, Townsville, Queensland, Australia
tracy.bagley@jcu.edu.au

Dr Tanya Park
RN, PhD
Assistant Professor,
Faculty of Nursing, University of Alberta,
Edmonton, Alberta, Canada
tmpark@ualberta.ca

Camilla Burkot
MPH
Research Officer, Centre for Nursing and Midwifery Research, Nursing, Midwifery & Nutrition, College of Healthcare Sciences, James Cook University, Cairns, Queensland, Australia
Camilla.burkot@anu.edu.au

Professor Jane Mills
RN, PhD, FACN
Pro Vice Chancellor
College of Health
Massey University, New Zealand
j.mills1@massey.ac.nz

ACKNOWLEDGEMENT

The authors of this paper wish to acknowledge the assistance of the Queensland Regional Training Network Clinical Supervision and Support Program for the financial support provided for this project.

KEYWORDS

Curriculum; nursing; nursing education; nursing students; professional role; placement

ABSTRACT

Background

Learning in the clinical setting is an essential component of nursing education. Two common models of clinical learning place students in facilities using either block or distributed approaches.

Aim

The aim of this study was to examine nursing students' perceptions of the impact of block versus distributed model of clinical placement on their learning experience.

Design

The study employed a descriptive, exploratory approach. Focus groups and an individual interview were conducted with third-year undergraduate nursing students.

Setting

Students from four Australian universities took part in the study.

Subjects

The average age of the 22 student participants was 37.5 years and 91% were female. More than half (55%) studied full time.

Results

Thematic analysis of the data identified five overarching themes: We're there to learn; Taking all that knowledge out and practising it; You actually feel a part of the team; Just prepare them for us coming; and It's really individual.

Conclusions

It is clear that both block and distributed modes of placement have inherent advantages and disadvantages that might be magnified depending on the individual student's circumstances. Sequencing, consistency and preparation must be considered when planning either mode of clinical placement to ensure the best possible experience for students. Most significantly, students need to feel as though they are part of the team while on placement to get the most out of the experience. These findings have implications for education providers planning the integration of clinical placement into the nursing curriculum.

INTRODUCTION

Nursing education must give students a comprehensive knowledge base to support critical thinking and clinical decision-making in expert practice. During undergraduate education, nursing students are taught theoretical foundations and given opportunities to practice skills in simulated environments before undertaking clinical placements across all years of their studies. Most nursing programs use either block or distributed models, or a combination of both (Walker et al 2013). In Australia the Australian Nursing and Midwifery Accreditation Council (ANMAC) sets minimum standards for professional experience acquired through clinical placements (ANMAC 2012). The standards do not, however, provide recommendations about the type of clinical placement model.

Choice of placement model is often determined by practical and financial factors rather than pedagogical needs. Current types of clinical placement in nursing education include block and distributed modes. The choice of placement model adopted by nurse educators is dependent on factors such as curriculum design, cost effectiveness and partnerships with health facilities – including contractual agreements (Walker et al 2013; Löfmark et al 2012). Block placement is based on the apprenticeship style of nurse training utilised prior to the transfer of nursing education to the university sector (which was finalised in 1992 in Australia). This model incorporates full-time placement for a period of weeks either within the study period or during semester breaks (Kevin et al 2010). The distributed model arose from a National Review of Nurse Education (Heath 2002) recommendation that undergraduate nursing students have weekly exposure to a broader range of clinical settings. Distributed placement requires students to attend placement and classes concurrently; for example two days in the clinical setting and three days of classes per week (Kevin et al 2010).

Research evidence (Levett-Jones et al 2008) suggests that short periods of one to two week block placements do not enable nursing students enough time to settle into the clinical setting, which influences their experience of 'belongingness'. Clinical staff are also less likely to feel a sense of ownership of the process of block placement, resulting in inadequate time being allocated to meet students' needs (Walker et al 2014; Levett-Jones et al 2008; Heath 2002).

Various studies (Kevin et al 2010; McKenna et al 2009; Ranse and Grealish 2007) report nursing students' perceptions of the distributed model. Positive student outcomes include continuity, familiarity, greater opportunities for learning and early professional socialisation. However, students were critical of the lack of the time they had to prepare for weekly placements (Kevin et al 2010).

Little evidence in the current literature supports the efficacy of one model over another. While the broader literature provides evidence of factors influencing students' and preceptors experiences of clinical placement (Paliadelis and Wood 2016; Courtney-Pratt et al 2015; Kevin et al 2010; Warne et al 2010; McKenna et al 2009; Ranse and Grealish 2007), a review of the literature failed to identify any studies that consider the efficacy of block placement versus distributed placement models. The lack of published evidence provides justification for this study, which aims to examine nursing students' perceptions of the impact of block versus distributed model of clinical placement on their learning experience.

METHOD

Ethical approval was obtained from the university's Human Research Ethics Committee. A descriptive exploratory design that employed focus group interviews with nursing students was used. Third-year students were recruited to ensure the participant group had the broadest possible experience of placement. Twelve institutions across one Australian state were approached to participate. Despite in principle widespread support, the limited availability of students during this final year of their program resulted in three focus group interviews and one individual interview being conducted with a total of 22 participants. Interview groups were undertaken at the students' universities during final-year teaching periods outside of students' scheduled classes. As this was a convenience sample across a diverse geographical area, each focus group was comprised of students from a single institution. The majority of participating students experienced both block and distributed placement during their studies.

Focus group interviews were conducted by at least one member of the research team, sometimes with the aid of a research assistant. Participants completed an anonymous survey that gathered demographic information such as gender, age, course and duration of enrolment. Focus groups have the advantage of bringing individuals with shared interests that stimulate interaction (Birks and Mills 2015). In this study the process was enhanced by the use of activities that engaged students and encouraged them to examine their previous placement experiences, including reflecting on factors that determined whether or not these were effective. Through this process of 'sharing and comparing' (Morgan 2012, p164) participants were encouraged to explore how and why characteristics of block and distributed modes of placement had the potential to enhance or detract from the learning experience. Interviews were recorded and transcribed for thematic analysis using qualitative data analysis software (NVivo). Materials such as post it notes and posters produced by participants during the interactive activities were also collected and used for clarification where necessary.

FINDINGS

The average age of the 22 participants, who were all from the same State, was 37.5 years (median: 37.5, range: 20 – 60), and 91% were female. A female academic also attended at one location, primarily as an observer. All participants were enrolled in a nursing degree program at the time of the study. Students recruited to the study were in their third (final) year of study though, on average, participants had been enrolled for 3.6 years (median: 3, range: 2.5 – 6). This can be explained by the variation in enrolment mode: 41% of participants studied part-time, while 55% studied full-time (5% enrolment mode not stated). Twenty-three percent of participants studied on-campus, 37% studied off-campus, and 9% studied in a mixed mode (on and off campus) (32% not stated).

Data from the transcripts were analysed to identify overarching themes. The five resultant themes were, *We're there to learn; Taking all that knowledge out and practising it; You actually feel a part of the team; Just prepare them for us coming;* and *It's really individual.*

"We're there to learn"

Study participants characterised the best placements as those that featured 'learning opportunities', i.e. situations that challenged students to make clinical decisions and acquire new skills. These learning opportunities materialised when three interrelated factors were in place: consistent expectations; clear understanding of the student scope of practice; and trust in student abilities. When students and staff knew which skills and behaviours were expected, students were free to focus on skill mastery without distraction, intimidation or frustration. Consistency in the supervising nurse was considered particularly important.

> *"I agree, consistency in the nurses [is good] because they're very different and they do their clinical skills different as well, which can make it confusing because you feel under pressure to do it the way they do it and then the next day you feel under pressure to do it the way [another nurse is] doing it."*

Participants generally found that block placements fostered consistency in the short-term, as opposed to distributed placements where "[i]n two days, you're just starting to get the hang of it and then you're not back until the week after or something". Individual student-supervisor relationships and the context of placement also had a bearing on consistency; for example an aged care facility or doctor's surgery was more likely to be characterised as consistent compared to a busy hospital ward. Consistency can present a barrier to learning if the student is barred from trying new skills. Regardless of mode, a common barrier to learning was uncertainty about students' scope of practice among both staff and students themselves:

> *"So nobody knows what you can and can't do. So they don't offer you the things that you want to learn how to do. You miss a lot of opportunities when no one knows what your scope is or when there's miscommunications about it."*

Though participants were usually eager to extend their skillsets, they were also acutely aware of the implications of practicing outside their scope:

> *"…the way she made me feel, I thought, oh my God, I'm going to get thrown off prac… so I was just shaking… I went to my bag and got out my scope of practice for prac… and… I just went to her and I said, 'look', you know, thinking I was in such big trouble, 'I just want to let you know this is what we've been told I'm allowed to do'."*

Participants did not perceive either placement mode as inherently better for promoting a clear understanding of the students' scope of practice, though one student commented that, hypothetically, it would be easier to delineate the scope in block placement, because:

> *"They'll know the days and the times that you're going to be there. Therefore they can go 'right, all of the students from [this subject], who can do exactly this, will be here, Monday to Friday on these three weeks'."*

"Taking all that knowledge out and practising it"

Clinical placement experiences should provide students with authentic learning experiences that enable them to consolidate knowledge. Sequencing appeared to be of greater importance than mode of placement for promoting integration of theory and practice.

> *"One of my placements was… for chronic, [but] we hadn't done acute… I'm like 'I have no idea what I'm doing'. They probably thought I was an idiot."*

Some participants suggested that distributed placements enabled students to integrate theory and practice more effectively because students had the opportunity to explore in greater depth what they encountered on the ward:

> *"…if you found something on placement that you wanted to research you had the time to. With block you've got the weekend and you've got to catch up on uni work, so you don't have the time to… look it up."*

Participants indicated that the appropriateness of placement mode shifted over time. While a distributed placement was perceived as a better fit for first-year students who required "balance" and "more time" to adjust to the clinical environment, block placements become more suitable as students' confidence and skills increased.

"You actually feel a part of the team"

Participants valued placements that supported the development of their identity as a nurse. Participants spoke highly of placements that best approximated 'authentic' or 'real life' working conditions, particularly being treated as part of the nursing team; managing shift work; being given responsibility for particular patients; and learning to adapt to changing circumstances. The allocation of meaningful nursing tasks to students offered mutual benefits:

> *"it really builds your self-confidence when you know that you can actually help and … decrease someone's workload while you're there as well as actually learning. It means that when you go into the work force, you can go 'yeah I've done that heaps of times'."*

Participants generally found they were more likely to become part of the nursing team on distributed placements; the structure of this model enabled students to develop effective communication skills and to become familiar with staff and routines on the ward. Block placements, however, were perceived as being more 'realistic' in terms of exposure to shift work and increasing the likelihood of being present for routine ward activities (e.g., handovers). Participants also reasoned that the short period of full-time work during the block better replicated a registered nurse's schedule and fitted more easily around academic obligations (e.g., a student on block could work a night shift, just as a registered nurse might, without having to attend lectures the following morning).

Participants repeated that self-confidence was fostered when supervising nurses demonstrated confidence in students' ability to practise effectively, "The best thing that happened to me was I had a nurse who said, 'okay, you write the plan, I'm following you today, you're running the shift'." When staff validated students as knowledgeable, skilled future nurses, this provided a huge boost for students' confidence.

> *"I wasn't even referred to as a student. I was referred to as a colleague. It made you feel so good … 'this is my colleague, she would like to ask some questions, is that okay?' Yep. Awesome."*

However, this kind of validation was overshadowed by examples of participants' abilities being discounted, which can significantly limit learning opportunities:

> *"As soon as you walk onto that ward and you've got that student shirt, you're just nothing, you're just there to clean up for them while they went and had a coffee break or a smoke break."*

There appears to be little distinction between block and distributed modes in terms of reducing what participants referred to as the "stigma" of being a student. Rather, this is perceived as dependent on institutional culture, a complex variable not readily mitigated by the mode or sequencing of placement:

> *"I don't think it boils down to how often we're there, or how regularly we're there. I think it's just a culture thing."*

"Just prepare them for us coming"

While the factors discussed above have pedagogical importance, findings suggest that preparation and planning at the placement sites strongly influence students' placement learning experiences regardless of mode. Such organisational factors are peculiar to a given placement site and are, therefore, more difficult to control. Organisational issues raised by students included staff not anticipating students, students not being told where to go or who to work with, and an inappropriate mix of staff/supervisors.

> *"I was allocated to a placement where they didn't always have students. So I showed up, they didn't know I was coming and the two ladies said 'oh I'm not having a student' and the other one said 'well I'm not having a student'."*

Providing students with a comprehensive, practical orientation upon arrival is a key responsibility of placement sites. Without proper orientation students spend valuable time seeking mentorship and trying to orient themselves to the site (e.g., paperwork procedures, computers/library access, parking) rather than gaining valuable professional experience.

> *"Unless you have a really good facilitator that puts you with someone, it's up to you to sort of be like 'can I work with you?"*

"It's really individual"

Personal factors strongly influenced students' placement experiences. In particular, balancing placements with study, work and family commitments were key considerations for participants. The placement mode that was most effective for promoting learning was, therefore, determined at the individual level. Maintaining a balance between study and personal life was a prominent concern. Whilst acknowledging that "a little bit of pressure is (a) good" motivator, participants felt they were at high risk of 'burn-out' as a consequence of struggling to manage placement expectations, academic workload and personal responsibilities.

For parents with young children, block placements proved challenging. Block placements demanded students' full-time attention for weeks at a time and were associated with greater financial burden. Costs cited included accommodation and fuel (for students placed away from their usual place of residence), childcare expenses, and lost earning opportunities:

> *"There's some people who work on weekends and block works for them fine. But I think for a lot of us, that's not the case and you're expected to save up for it. But that's nigh on impossible."*

Several participants commented that while distributed placements presented some pragmatic benefits, block placements offered the distinct advantage of encouraging a singular focus on the placement experience:

> *"I think that it's handy having block, because you know the rest of your life stops during this period. That's it. …it's nice to know, in this period of time, the rest of life stops."*

DISCUSSION

The clinical experience component of pre-registration nursing programs is the most important factor in the development of reflective, evidence based practitioners who are committed to ensuring quality outcomes in the practice environment (Henderson et al 2012). Participants in this study were aware of the important role that clinical placement played in the consolidation of learning. While the block placement model was considered by some participants to offer a realistic and authentic experience of the registered nurse role, numerous other factors determined which mode of placement was considered most conducive to learning. Of these factors, consistency was seen as one of the most critical. Consistency supports continuity and could take the form of working with the same staff, returning to the same environment, or being in a given environment over a period of time (Gilmour et al 2013). Participants felt that consistency facilitated familiarity between students and staff, particularly in relation to students' capabilities; similar findings were reported in Courtney-Pratt et al (2012). Block placements were generally perceived to be more likely to support consistency, a concept supported by Levett-Jones et al (2008) who found that a settling-in period preceded the ability of students to focus on learning at each placement. For participants in that study, the capacity to benefit fully from learning opportunities was limited in shorter placements. Personal preferences and lifestyle factors determined the extent to which a student would find one or the other mode of placement more conducive to learning. Block placement can create a situation of difficulty, even hardship, for some students. Where such pressures do not exist, block placement can provide an opportunity for focused learning.

The current climate in which clinical placements for nursing students is negotiated is complex and driven by numerous factors that are often beyond the control of the educational institution. Quality clinical placements are secured in a competitive environment as all institutions seek to meet the minimum requirements for registration of graduates determined by the accrediting authority (ANMAC 2012). Clinical venues also struggle to support these requirements within political and economic constraints. These factors contribute to the issues identified by participants in this study in relation to planning for placements. Adequate preparation of clinical environments and the staff who support students undertaking clinical placement (Courtney-Pratt et al 2012) is essential for ensuring a quality learning experience. This might be as simple as ensuring staff at the unit level are aware that students will be on placement at a given time. As described in this study, students can feel very unwelcome and be derailed from the outset if their arrival is not expected by clinical staff (Gilmour et al 2013).

Participants did identify some aspects of the clinical experience that could be improved by the educational institutions themselves, particularly in respect of the scheduling of clinical placement relative to the curriculum. Aligning practical exposure with theoretical instruction has become increasingly difficult for nurse academics in recent decades because of growth in student numbers. This study indicated the impact that this misalignment of theory and practice can have on the learning of related concepts. In respect of sequencing of modes, distributed placements may be of greater value earlier in the program of study, with block placements being more beneficial during the later stages as students build confidence. This finding reflects that of Roxburgh (2014) who found that supportive models used earlier in a nursing program built resilience for a different model of placement in subsequent years.

Participants in this study highlighted the importance of feeling part of a team, reflecting the findings of participants in studies by both Courtney-Pratt et al (2012) and Gilmour et al (2013) who felt that this level of acceptance was critical to ensuring a positive placement experience. Participants in this study found that becoming part of a team was more likely to occur with a distributed placement model, an outcome inconsistent with the work of Levett-Jones et al (2008). Participants in this study also discussed the importance of staff having confidence in the student's ability to function in the clinical environment. Confidence was instilled when registered nurses trusted students to take on greater responsibility, similar to the experience of midwifery students in Gilmour et al's study (2013). The results presented in the preceding section suggest that participants felt this confidence was more effectively built with a distributed model, once again at odds with the work of Levett-Jones et al (2008). When students did not feel as though they were part of a team, the clinical placement experience could be negative and learning potential was reduced. The findings reported in this paper reveal the stigma associated with being a student. Participants found environments that "were not welcoming or facilitative of their learning" (Levett-Jones et al 2008, p14) had little benefit, regardless of mode.

RECOMMENDATIONS AND LIMITATIONS

It is clear that both block and distributed modes of placement have inherent advantages and disadvantages. The results of this study showed that block placements were regarded by students as more effective than distributed placements in three main areas: gaining a realistic sense of the work, routines and schedules of nursing; encouraging a singular focus on placement; consistency in teaching and learning style of clinical supervisors. On the other hand, distributed placements were regarded as more conducive to the following: work life balance; integrating theory and practice; developing the feeling that one was 'part of the team'. Students also said that the placement model had little bearing on a number of crucial factors that affected their learning, such as uncertainty about scope of practice; readiness of the workplace to manage placements; and the 'stigma' of being a student nurse.

While individual factors will often determine the value of clinical learning, measures can be taken to enhance student learning experiences regardless of the placement model employed. Such measures include:

- ensuring appropriate sequencing of placements to align with theoretical and chronological stages of study;
- promoting consistency by enabling students to return to a familiar venue;
- adequately preparing the clinical environment for the students they receive on placement; and
- establishing a culture that encourages students to feel as though they are members of the team.

The main limitation of this study was that it was confined to one state and was constrained by student availability in their critical final year of study. While the models of placement described in this paper reflect those in other parts of the country, it is acknowledged that different approaches to clinical experience placement are used internationally. Future research may explore the potential application of these diverse models to the local context; or the perspectives of a broader cross section of students and/or staff of clinical and educational institutions. Targeted research that develops strategies to address learning in the clinical environment more broadly would also prove valuable.

CONCLUSION

Professional experience in the clinical environment is crucially important for students of nursing. As the resources available to support students on clinical placement are subject to increasing stressors, it is critical that the quality of the experience not be compromised. Consideration needs to be given, therefore, to identifying the most appropriate placement model to support student learning. Placement models vary by institution, but preparation of students and staff in the clinical setting is critical to the success of the placement experience. Such preparation provides a foundation for the development of relationships that contribute to students feeling part of a team. This sense of belonging is inextricably linked to the facilitation of positive learning experiences that are critical to preparation for the professional role.

REFERENCES

Australian Nursing and Midwifery Accreditation Council. 2012. Registered Nurse Accreditation Standards 2012. Canberra: Australian Nursing and Midwifery Accreditation Council (ANMAC), http://www.anmac.org.au/sites/default/files/documents/ANMAC_RN_Accreditation_Standards_2012.pdf (accessed 25.02.17).

Birks, M. and Mills, J. 2015. Grounded theory: A practice guide. London: SAGE.

Courtney-Pratt, H., FitzGerald, M., Ford, K., Marsden, K. and Marlow, A. 2012. Quality clinical placements for undergraduate nursing students: a cross-sectional survey of undergraduates and supervising nurses. *Journal of Advanced Nursing*, 68(6):1380-1390.

Courtney-Pratt, H., Ford, K. and Marlow, A. 2015. Evaluating, understanding and improving the quality of clinical placements for undergraduate nurses: A practice development approach. *Nurse Education in Practice*, 15(6):512-516.

Gilmour, C., McIntyre, M., McLelland, G., Hall, H. and Miles, M. 2013. Exploring the impact of clinical placement models on undergraduate midwifery students. *Women & Birth,* 26(1), e21-25.

Heath, P. 2002. National Review of Nurse Education 2002: Our Duty of Care. Canberra: Commonwealth of Australia.

Henderson, A., Cooke, M., Creedy, D. K. and Walker, R. 2012. Nursing students' perceptions of learning in practice environments: A review. *Nurse education today*, 32(3):299-302.

Kevin, J., Callaghan, A., Driver, C., Ellis, J. and Jacobs, B. 2010. A possible alternative model of clinical experience for student nurses. *Journal for Nurses in Professional Development,* 26(5):E5-E9.

Levett-Jones, T., Lathlean, J., Higgins, I. and McMillan, M. 2008. The duration of clinical placements: a key influence on nursing students' experience of belongingness. *Australian Journal of Advanced Nursing,* 26(2):8-16.

Löfmark, A., Thorkildsen, K., Råholm, M.-B., & Natvig, G. K. 2012. Nursing students' satisfaction with supervision from preceptors and teachers during clinical practice. *Nurse Education in Practice*, 12(3):164-169.

Morgan, D.L. 2012. Focus groups and social interaction.In J.F.Gubrium, J.A Holstein, A.B. Marvasti & K.D.McKinney, The SAGE handbook of interview research: The complexity of the craft (2nd edn, pp161-175). Thousand Oaks: SAGE.

McKenna, L., Wray, N. and McCall, L. 2009. Exploring continuous clinical placement for undergraduate students. *Advances in Health Sciences Education*, 14(3):327-335.

Paliadelis, P. and Wood, P. 2016. Learning from clinical placement experience: Analysing nursing students' final reflections in a digital storytelling activity. *Nurse Education in Practice*, 20:39-44.

Ranse, K. and Grealish, L. 2007. Nursing students' perceptions of learning in the clinical setting of the Dedicated Education Unit. *Journal of Advanced Nursing*, 58(2):171-179.

Roxburgh, M. 2014. Undergraduate student nurses' perceptions of two practice learning models: A focus group study. *Nurse education today*, 34(1):40-46.

Walker, S., Dwyer, T., Broadbent, M., Moxham, L. and Sander, T. 2014. Constructing a nursing identity within the clinical environment: The student nurse's experience. *Contemporary Nurse: A Journal for the Australian Nursing Profession,* 49(1):103-112.

Walker, S., Dwyer, T., Moxham, L., Broadbent, M. and Sander, T. 2013. Facilitator versus preceptor: Which offers the best support to undergraduate nursing students? *Nurse education today*, 33(5):530-535.

Warne, T., Johansson, U.B., Papastavrou, E., Tichelaar, E., Tomietto, M., Van den Bossche, K., Moreno, M.F. and Saarikoski, M. 2010. An exploration of the clinical learning experiences of nursing students in nine European countries. *Nurse education today*, 30(8):809-815.

Can patients and their caregivers boost identification of HIV Associated Neurocognitive Disorder (HAND)?

AUTHORS

Denise Cummins
RN , MPH, GCertPC, GCertONCNurs, GCertCN, GCertHIVNurs, Clinical Nurse Consultant HIV Disease
Sydney District Nursing Service, Community Health, Sydney Local Health District, 103-105 Redfern St
Redfern, NSW, Australia
Denise.Cummins@sswahs.nsw.gov.au

Kenneth Murray
RN, MNurs(ClinLead), GCertMntlHlthNurs
Clinical Nurse Consultant,
Maroubra Community Mental Health Service, South Eastern Sydney Local Health District
130 Garden Street, Maroubra, NSW, Australia
Kenneth.murray@sesiahs.health.nsw.gov.au

Gary Trotter
RN, RM, GDipHSc, Clinical Nurse Consultant HIV Disease, Royal Prince Alfred Hospital, Sydney Local Health District, Missenden Road Camperdown, NSW, Australia
Garry.trotter@sswahs.nsw.gov.au

Associate Professor Marijka Batterham
MMedStat MSc(Nutr&Diet) PhD AdvAPD AStat
Director, Statistical Consulting Centre, University of Wollongong, Nordields Avenue, Wollongong, NSW, Australia
Marijka@uow.edu.au

Loretta Healey
BSocWk, GradDipSHC, Senior Counsellor, RPA Sexual Health, Sydney Local Health District,
16 Marsden Street, Camperdown, NSW, Australia
healeyl@email.cs.nsw.gov.au

A/Prof Catherine C O'Connor
MB.BS(Hons), DrPH, MM, FAChSHM, FRACGP, DRACOG
Director Sexual Health Service, Exec Clinical Director Community Health, Sydney Local Health District, 16 Marsden Street Camperdown, NSW Australia
Catherine.oconnor@sswahs.nsw.gov.au

Acknowledgements

Thank you to Dr David Horry for providing neuropsychological exam results; all the doctors at each clinic and Ms Velma Parkinson at Liverpool Hospital. Thanks to Abbvie for an unconditional education grant, used for data analysis and printing. Much appreciation to all the participants and caregivers involved in the study.

KEY WORDS

People living with HIV, HIV associated neurocognitive disorder, mild neurocognitive disorder, caregiver

ABSTRACT

HIV associated neurocognitive disorder (HAND) may be difficult to identify as signs and symptoms (S&S) are nonspecific.

Objective

To ascertain whether people living with HIV and their caregivers using a self reflective tool could identify S&S of HAND.

Design

This study was a nurse led prospective observational multi-site study using a quantitative design.

Setting

Participants were recruited from three sites in Sydney, New South Wales (NSW), Australia: an inner metropolitan HIV clinic, an inner metropolitan sexual health clinic and a suburban hospital HIV clinic.

Subjects

121 patients and 44 caregivers who attended ambulatory clinics providing HIV care.

Main Outcome Measures

Observing usual standard of care to follow patients who had formal neuropsychological testing and diagnosis of HAND.

Results

Sixty one percent of participants and 57% of caregivers identified more than four symptoms. Sixteen had neuropsychological exams; five were diagnosed with HAND. After changes to their medication regime all of those five showed an improvement in cognition. Of the remaining 11, four results were inconclusive, with some deficits noted.

Conclusion

Patients and caregivers stated the booklet helped them to reflect on behavior changes which they could subsequently discuss with their doctor. The booklet was considered useful to identify S&S which could indicate HAND.

INTRODUCTION

HIV is treated with medications known as antiretroviral drugs which has had a substantial positive impact on morbidity and mortality for People Living with HIV (PLHIV) and has resulted in life expectancy approaching population norms for those individuals who have optimal adherence to HIV medications. (Clifford and Ances 2013). Yet, despite HIV virological suppression and immune recovery, studies suggest 30% of PLHIV are affected by HIV associated neurocognitive disorder (HAND), (Clifford and Ances 2013; del Palacio et al 2012; Heaton et al 2010) significantly impacting quality of life (Tozzi et al 2004).

In the 1980s, the clinical features of AIDS dementia complex (ADC) were those of a sub-cortical dementia characterised by cognitive impairment, behavioural abnormalities and disturbed motor function. With the introduction of antiretroviral medications, ADC largely disappeared from clinical practice, but now milder forms of cognitive impairment are being observed. In 2007, the classification for ADC was revised, and is now known as HAND. HAND is divided into three categories, each with varying degrees of disability impacting quality of life: Asymptomatic Neurocognitive Impairment (ANI), Mild Neurocognitive Disorder (MND), which causes symptomatic disease, and HIV Associated Dementia (HAD) (Antorini et al 2007). This study focuses on the signs and symptoms (S&S) associated with MND.

MND affects the person's ability to perform activities of daily living such as preparing meals, managing finances, attending doctors' appointments and driving. It may also affect their social relationships and the ability to retain employment or be promoted. Caregivers can have a positive effect on the health and well being of PLHIV (Gisslen et al 2011) and may be well placed to notice any changes in the PLHIV. Signs and symptoms of MND may be subtle and are potentially normalised by PLHIV and may be difficult to detect by clinicians. Individuals may start to notice mild memory problems and slowness, difficulties in concentration, planning and multitasking (Schouten et al 2011; Heaton et al 2010; Grant 2008).

A booklet was developed (Trotter and Cummins 2008) to be used by patients and caregivers to reflect on whether the person was experiencing signs and symptoms which may indicate HAND. Information in the booklet focused on four key areas that affect cognition (memory, concentration, motor skills and social skills) for patients and their caregivers to reflect on any changes in cognition. Using the booklet enabled the caregiver to recognise potential signs and symptoms of MND. It should be noted that some PLHIV may be socially isolated (McDonald et al 2013) and not have the support of a caregiver and may have no one they can rely upon who may notice changes in their cognition including memory, motor function and social behaviour.

There are currently no biological markers for a definitive diagnosis of HAND (Atluri et al 2014). Studies suggest predictors of HAND are: past history of AIDS defining central nervous system disease (Fabiani et al 2013), other central nervous system disease (Valcour et al 2004), low CD4 cell count (Schouten et al 2011), drug and alcohol use (Fiala et al 2005), low education level (Tedaldi et al 2015), and Hepatitis C infection (Schouten et al 2012).

PLHIV with cognitive impairment including HAND, have been shown to be less adherent to HIV medication regimes. (Robertson et al 2010; Skinner et al 2009). This may lead to drug resistant HIV, resulting in their current medication regime becoming ineffective (Robertson et al 2010; Skinner et al 2009). Morbidity and mortality can then be affected as the person experiences poor health outcomes secondary to impaired adherence (Thames et al 2011).

If identified and treated early, using HIV drug treatment or changing the medication regimen to medications which have a higher CNS penetration via the blood brain barrier (Letendre et al 2010) may lead to improvement in previous cognitive changes related to MND thus improving outcomes for patients (Cysique et al 2009).

In addition as PLHIV age they may be at risk of other neurologic conditions associated with ageing such as vascular dementia and Alzheimer's disease (del Palacio et al 2012). Thus the complexity of neurological health for PLHIV may be on the increase. The prevalence of MND among PLHIV in Sydney, NSW is unknown. There is a paucity of literature regarding PLHIV's experiences of and their reflections that is consideration of any changes in cognition in the last 12 months and any signs and symptoms they are currently experiencing which may be indicators of HAND.

METHOD

Aim

To consider the value of patient and caregiver use of a self-assessment booklet in leading to early medical assessment of MND.

Design

A quantitative study from a prospective observational multi-site study to explore the usefulness of a patient self-assessment booklet "HIV associated MND: How to recognise signs and symptoms" developed by two of the authors (Trotter and Cummins 2008) by assisting PLHIV and their caregivers in recognising any signs and symptoms of cognitive impairment as noted in the booklet. This is not a validated tool but was developed to explore whether patients were experiencing any signs and symptoms which could indicate HAND. The study period ran over 28 months from June 2012 to October 2014.

Setting

The study was conducted at three outpatient sites within two Health Districts covering a greater part of Sydney, NSW, Australia.

Each site provides HIV specialist care: an inner city hospital based clinic, an inner city sexual health clinic and a suburban hospital based clinic. The inner city clinics are in the inner west of Sydney which has the second highest number of HIV diagnoses in NSW, Australia. A high proportion of patients seen at these clinics are men having sex with men (NSW HIV Strategy 2012-2015). The suburban hospital HIV clinic is in the outer suburbs of Sydney and cares for a high proportion of participants from culturally and linguistically diverse (CaLD) backgrounds.

Participants

Participants were recruited whilst attending their regular multi-disciplinary consultation reviews at outpatient clinics at one of the three sites. Participants were eligible for inclusion if they were HIV positive over 18 years of age and they provided written consent at time of recruitment. Participants could nominate a caregiver to be invited to participate in the study. For the purpose of this study caregivers were considered unpaid individuals who provide practical, emotional or financial support to the person, such as partners, family members and friends. Initial recruitment was over a four month period in 2012.

Individuals were excluded if they were diagnosed with HIV in the last twelve months; had a preexisting identified cognitive impairment; were experiencing current social chaos or had inadequate English language skills. As depression may confound cognitive symptoms (Woods et al 2009), patients who had current untreated depression were excluded but became eligible once their depression was treated. Current alcohol and substance use was assessed and patients with dysfunctional use were excluded from the study until substance and alcohol use was addressed.

Participants completed a demographic questionnaire and were given the booklet "HIV associated MND: How to recognise signs and symptoms" (Trotter and Cummins 2008). The self assessment booklet was developed by a HIV Psychiatrist and HIV Clinical Nurse Consultants, informed by literature review and professional experience. It was focus group tested for readability, clarity, design, flow and acceptability. The booklet has 36 items grouped into four categories of behaviours: concentration, memory, motor skills and social issues. Additionally the booklet had information in it noting how S&S may be misread as depression, ageing or being more stressed; but not to "panic" as having a clinical review would lead to a definitive diagnosis which could be treated.

Participants and caregivers were provided with the booklet and were asked to reflect on any changes experienced or observed over the last twelve months. If they noted any change in behaviour over the previous twelve months we asked them to respond "Yes" to each relevant item. They were contacted two weeks later via telephone to provide responses to items selected from the booklet.

A file audit was attended to ascertain specific risk factors for cognitive impairment including the participants' HIV viral load, CD4 T cell nadir and current CD4 T cell count. Current medication regimen was noted. The researchers observed the usual standard of care at medical consultations. Initially the researchers asked participants to discuss items identified in the booklet with their doctor during the next consultation. It became apparent that the discussion was not taking place as participants stated they were either "not remembering" to mention issues to the doctor, "did not think it was important" or there "was not enough time". The researchers intervened by transcribing the list of items selected by participant and/or their nominated carer, placing the list in a prominent place in the clinical notes to promote discussion at the next appointment. This resulted in increased discussions of the items selected.

As there was no other PLHIV self-reflective booklet available at the time to use as a guide, the researchers decided selection of four or more items would be flagged with medical practitioner for patient discussion. Previously clinical judgement and incidental anecdotal evidence from PLHIVs was relied on to discuss issues relating to HAND.

All neuropsychological testing was conducted by a trained clinical neuropsychologist. This procedure followed the usual required battery of tests required as a neuropsychological exam. The results were made available for the researchers to ascertain which participants completed the exam and final results. The clinical review process of participants diagnosed with MND was observed for changes in treatment prescribed by their doctor and the outcome of the treatment. Data entry was completed by one member of the team who was not involved in the recruitment process.

STATISTICAL ANALYSES

Data was analysed using SPSS (V21 IBM Corporation Armonk, NYI, USA). Analysis included presentation of descriptive statistics, Chi Square tests, Mann Whitney and Kruskall Wallis tests as indicated.

ETHICS

Ethics submission had been approved by Royal Prince Alfred Hospital Research Ethics Committee (X10-0354+ HREC/10/RPAH/618) and Liverpool Hospital Research Ethics Committee (SSA/11/LPOOL/203) Sydney Australia.

RESULTS

Of 330 people screened for enrolment in the study 165 (50%) were ineligible including 30 (9%) who declined participation. At the suburban hospital site 30 people were not screened for enrolment due to limited staffing issues during study period which impacted on the overall number of participants able to be recruited at that site. Table 1 summarises the exclusion criteria of the 165 ineligible PLHIV.

Table 1: Exclusion criteria of patients excluded

Criteria	Total
New Diagnosis of HIV	12
Pre-existing Ccognitive Impairment	34
Social chaos	16
Poor English	44
Drug and Alcohol Use	16
Current untreated depression	13
Declined	30
Total excluded	165

In total 121 participants and 44 caregivers across the three sites were recruited (table 2).

Table 2: Participants and Caregivers recruited

Participants Recruited	Total
Number of participants	121 (100%)
Number of participants who identified 4 or more S&S	74 (61%)
Number of caregivers	44 (100%)
Number of caregivers who identified 4 or more S&S	25 (57%)

More than one third of participants (39%) noticed some behaviour change in themselves and 28 (23%) were concerned about these changes in behaviour.

The mean age of participants was 49 years old, range 25 to 75years. The median was also 49 age was normally distributed; <40 years (n=25), 41-50 years (n=48), 51-60 years (n=31), 61-70 years (n=16) and >71 (n=1). Sixty one per cent identified four or more S&S and of these four, after further investigation, were diagnosed with HAND but there was no difference in age in those diagnosed with HAND (mean 48) and those without HAND (mean 49) with a p value of 0.845. Ninety six per cent were men (116). Forty nine participants (40.5%) lived alone, 46 (38%) lived with a partner and 24 (20 %) lived in shared households. Two participants lived (2 %) with children.

Depression

Forty eight (39.7%) participants had a history of depression, which is consistent with the prevalence of depression in HIV positive populations (Grierson et al 2009). Thirty two (26.4%) were currently being treated for depression. Those with depression tended to have more symptoms selected from the booklet than those without current depression. P=0.056 Mann Whitney Test.

HIV Information

The median duration of HIV infection of participants was 10 years, range (0 – 29) which indicated the participants had been infected for some time and therefore be at increased risk of developing co-morbid conditions. The CD4 T lymphocyte cell count is a marker of antiretroviral treatment responses and HIV disease progression. The participants' median CD4 count was 590×10^7 (10 – 1720) which is within normal limits, indicating that participants have adequate immunity; CD4 nadir count is the lowest it has ever reached and low CD4 nadir count is also a predictor of HAND, the median CD4 nadir was well below normal CD4 count at 180×10^7 (0 – 750); median prescribed antiretroviral medications therapy was six years (0 – 28).

Risk factors for non-HIV related cognitive impairment

Many PLHIV have co-morbid conditions. A review of participants' clinical notes revealed some risk factors for non-HIV related cognitive impairment were documented in all notes (table 3). Of these factors, none were statistically significant.

Table 3: Identified from clinical notes patient risk factors for cognitive impairment

Current Conditions	Yes	P Mann Whitney	P t test
Hepatitis C virus	10 (8.3%)	0.046	0.159
Hypertension	31 (25.6)	0.443	0.155
Prescribed Antihypertensive drug	29 (24%)	0.734	0.280
Hypercholesterolemia	79 (65.3%)	0.803	0.452
Hyperlipidaemia	61 (50.4%)	0.203	0.406
Sleep Apnoea	5 (4.1%)	0.498	0.361
Diabetes	7 (5.8%)	0.078	0.033
Current smoker	38 (31.4)	0.010 (Kruskal Wallis)	Anova

Antiretroviral medications

Ninety four per cent (114) were currently taking antiretroviral medications. Of these, 30% (n=36) were on a once daily co-formulated single pill regimen, and 33 (n=40) took three or more pills per day.

Eleven percent (n=13) had missed more than two doses of medications in the last month. There was a trend for a higher number of symptoms in the group who were not adhering to their medications P=0.070 Mann Whitney Test.

Caregivers

Seventy seven participants (64%) did not nominate a caregiver to be contacted. Six caregivers declined to be involved. The suburban hospital recruits (n=14) did not identify any caregivers. Of the caregivers identified (n=44), 82% (n=36) were male and 18% (n=8) were female. The relationship of the caregiver to the PLHIV varied: twenty-eight were male same sex partners, six were female partners of men, three were husbands of women, one was a mother, one a son, four were male friends and one was a female friend. Forty two percent (n=15) of the caregivers identified as PLHIV.

The most reported symptoms by both caregivers (47%) and participants (67%) was "being mentally tired at end of day" and caregivers (64%) and participants (67%), "have you noticed you don't go out socially as much as you used to?"

Neuropsychological examination

Twenty three (31%) of the 74 participants who identified more than four S&S from the booklet were offered clinical neuropsychological examination following consultation and clinical review by their doctor. Seventy percent (n=16) underwent the usual standard battery of tests performed in the clinical neuropsychological examination and 30% (n=7) declined testing (table 4). Four participants (25%) of the 16 that had completed a clinical neuropsychological examination were diagnosed with MND as a result of these examinations.

Table 4: Neuropsychological Exam Results

Number of Neuropsychological exam (n=16)	Results of Neuropsychological exam
5 (31%)	Inconclusive, ongoing monitoring recommended
7(44%)	Within normal limits (1 depression, 1 sleep apnoea)
4 (25%)	MND diagnoses (medication regimen optimised, subsequent improved cognition noted)

DISCUSSION

MND can have a detrimental impact on the health and well-being of PLHIV. As part of the HAND spectrum, MND may be difficult to identify because key signs and symptoms of MND may be subtle and often the PLHIV and their caregivers may believe signs and symptoms are attributable to other issues such as ageing, stress and/or lifestyle factors.

There were no previous studies regarding PLHIV and/or Caregivers' self-reflection of signs and symptoms of cognition to guide us. The researchers chose the identification of four or more symptoms by either participants or caregivers as a cue to monitor subsequent investigations and current standard of care. The 61% of participants and 57% of caregivers who identified four or more symptoms supported adoption of using the booklet to reflect on changes in the participants behaviour.

Caregivers are well placed to notice changes in cognitive behaviour (Glissen et al 2011). Many stated they welcomed being involved in the study and that using the booklet to help reflect on the PLHIVs behaviour enabled them to start a discussion regarding behaviours they had noticed but did not know how to raise with the person. In addition some of the caregivers also identified as PLHIV and this may impact on future support if they as the caregiver also become ill or cognitively impaired.

Many of the participants live alone and did not identify caregivers who may be well placed to notice any changes in cognitive behaviour. At one site, none of the participants identified a caregiver. A majority (70%) of these participants were MSM who were married to women. Their lifestyle did not include HIV culture of gay men in Australia, perhaps best illustrated by one participant "We don't talk about the HIV much, and I sure don't want to mention this". The clinician needs to be more vigilant in asking PLHIV without identified carers about cognition. The combination of PLHIV reflecting regularly on their behaviour and staff with a therapeutic relationship with the PLHIV, including knowing their social situation may combine to improve identification of impairment (as PLHIV may underrate signs and symptoms). As this population age they may become isolated socially (McDonald et al 2013) and the relationship with their clinician may become very important for asking questions about cognition. Discussion of cognition and memory should be incorporated and normalised into an annual review of HIV care, and may result in early detection (Wright and Watson 2012). This may reduce fear and apprehension of results from neuropsychological testing and enhanced discussion of signs and symptoms (several participants declined testing due to fear of the outcome and being labelled cognitively impaired).

Regular reflection by the PLHIV and their caregiver may assist in early interventions for HAND screening and diagnosis. Many of the participants had long standing HIV which may place them at risk of developing HAND even though their HIV was well managed (Antorini et al 2007). The average age of participants was 49 years and as they age they may be at risk of developing co-morbidities such as heart disease which may affect cognitive impairment and may need to be closely monitored for signs and symptoms of cognitive impairment. The greatest co morbidity risk factors for cognitive impairment identified in the participants were vascular risk factors, such as: current nicotine smoking (31%), those with hypercholesterolaemia (65%), hyperlipidaemia (50%), or hypertension (25%) (table 3). These figures point to the need to monitor patients and develop strategies to improve management of co-morbidities such as smoking cessation. In addition successful management of co-morbidities may help improve HAND outcomes (Wright and Watson 2012).

The signs and symptoms of depression may confound MND diagnosis so it is important to screen the PLHIV for this (Grierson et al 2009). Forty per cent of participants in this study had a previous history of depression, 26% were currently being treated for depression and 9% identified signs and symptoms of depression, and so were excluded from the study until reviewed by their doctor. The group who were currently being treated for depression were non-significantly more likely to have S & S of cognitive impairment ($p=0.056$). Many PLHIV were excluded from this study due to current untreated depression, substance use issues and language difficulties. Early detection and treatment of depression, providing assistance with depression and substance issues and developing resources in different languages would support improvement of rates of PLHIV being identified with and treated for MND.

Ninety four per cent of the participants were prescribed antiretroviral medications. Of these 33% were taking more than three antiretroviral drugs. The researchers did not enquire about other medications. Pill burden may be a factor in adherence (Robertson et al 2010; Skinner et al 2009). Eleven per cent had missed > 2 doses of medications in the last month. This group had a non-significantly higher number of items from the booklet (P=0.070).There is a potential for a closed feedback loop whereby the patient with adherence problems may, as a result of the poor adherence, suffer further cognitive decline, leading to further impairment of adherence.

This study enabled some people who would otherwise been missed to be identified and referred for neuropsychological assessment. Using this booklet PLHIV were able to reflect and use the booklet to report to clinicians, leading to neuropsychological testing. Several had their treatments changed by their doctor to a regime that had improved central nervous system penetration and had improvements in cognition when subsequently reviewed (table 4). Thirty per cent of PLHIV offered neuropsychological testing declined. Nurses are well placed to explore the reasons for declining and facilitating understanding of the improved outcomes formal testing could facilitate. The therapeutic relationship between patient and nurse may promote an open conversation, allowing the nurse to provide information to the PLHIV enabling further assessment and investigations.

Initially participants did not divulge items they had noticed from the booklet with their doctor as they did not think it was important, forgot or ran out of time. Nurses are well placed to discuss this with patients prior to their appointment with their doctor, to ask if the person has noticed any recent changes in cognitive symptoms or behaviours. Information from this discussion can be documented and brought to the attention of the doctor prior to the consultation. Nurses can use the booklet to initiate discussion and with regular questioning normalise the issue with the patient. Scheduled annual review of the patient would also be of benefit, utilising the initial documentation as a baseline for noticing changes in behavior and cognition.

LIMITATIONS/CHALLENGES

There were several challenges during this study.

There was no HIV negative matched comparison group for this study. This study was designed to follow the patient through their usual standard of care at the clinic they attended. Future studies could include a comparison group.

As there was no validated self reflective tool available we relied on professional judgement and incidental anecdotal evidence from PLHIVs to discuss issues relating to HAND. The researchers decided to flag if four or more items from the booklet were selected.

The small number of patients diagnosed with HAND (four) limited further analysis particularly in relation to age and further study is needed to clarify if there is a distinction between HAND and other age related neurocognitive or psychogeriatric conditions.

Exclusion of people who had inadequate English language skills made many participants ineligible for the study. Translation of the resource into community languages would assist in recruitment of this group in future.

IMPLICATIONS FOR PRACTICE

Nurses providing care and support to PLHIV should be aware of HAND and what questions to ask, and should further explore patients' experience. A booklet exists which can be used by clinicians, patients and their carers to start a conversation about any signs and symptoms the PLHIV may be experiencing - assisting the PLHIV to reflect on recent changes in behaviour such as memory and concentration problems which could affect their quality of life. Reflection of change may prompt further exploration by their doctor of cognitive decline.

Early recognition and treatment may have a positive impact on the health and well being of the patient by reducing signs and symptoms and restoring independence.

As PLHIVs age and are at risk of developing other diseases of the brain, a HAND diagnosis should be considered in a neurological setting.

CONCLUSION

PLHIV are experiencing signs and symptoms of cognitive impairment which can affect their quality of life. HAND is a diagnosis of exclusion and PLHIV and their caregivers can have a major part in recognising signs and symptoms. Self-reflection is very important, as is reflection from caregivers.

REFERENCES

Atluri, V.S.R., Kurapati, K.R.V., Samikkannu, T. and Nair, M.P.N. 2014. Biomarkers of HIV Associated Neurocognitive Disorders. JSM Biomarkers 1(1):1002.

Antinori, A., Arendt, G., Becker, J.T ., Brew, B.J., Byrd, D.A., Cherner, M., Clifford, D.B., Cinque, P., Epstein, L.G., Goodkin, K., Gisslen, M., Grant, I., Heaton, R.K., Joseph, J., Marder, K., Marra, C.M., McArthur, J.C., Nunn, M., Price, R.W., Pulliam, L., Robertson, K.R., Sacktor, N., Valcour, V. and Wojna, V. E. 2007. Uploaded research nosology for HIV-associated neurocognitive disorders. *Neurology*, 69(18):1789-1799.

Clifford, D.B. and Ances, B.M. 2013. HIV - associated neurocognitive disorder. *Lancet Infectious diseases*, 13(11):976-986.

Cysique, L.A., Vaida, F., Letendre, S., Gibson, S., Cherner, M., Woods, S.P., McCutchan, J.A., Heaton, R.K. and Ellis, R.J. 2009. Dynamics of cognitive change in impaired HIV-positive patients initiating antiretroviral therapy. *Neurology,* 73(5):342-348.

Del Palacio, M., Alvarez, S. and Angeles Munoz-Fernandez, M. 2012. HIV-1 infection and neurocognitive impairment in the current era. *Reviews in Medical Virology,* 22(1):33-45.

Fabiani, S., Pinto, B. and Bruschi, F. 2013. Toxoplasmosis and neuropsychiatric diseases: can serological studies establish a clear relationship? *Neurological Science*, 34(4):417-425.

Fiala, M., Eshleman, A.J., Cashman, J., Lin, J., Lossinsky, A.S., Suarez, V., Yang, W., Zhang, J., Popik, W., Singer, E., Chiappelli, F., Carro, E., Weinand, M., Witte, M. and Arthos, J. 2005. Cocaine increases human immunodeficiency virus type 1 neuroinvasion through remodeling brain microvascular endothelial cells. *Journal of Neurovirology*, 11(3):281–291.

Grant, I. 2008. Neurocognitive disturbances in HIV. *International Review of Psychiatry*. 20(1):33-47.

Gisslén, M., Price, R.W. and Nilsson, S. 2011. The definition of HIV-associated neurocognitive disorders: are we overestimating the real prevalence? *BMC Infectious Diseases*,11:356.

Grierson, J., Power, J., Pitt, M., Croy, S., Thorpe, R., McDonald, K. 2009. HIV Futures 6: Making Positive Lives Count, monograph series number 74, The Australian Research Centre in Sex, Health and Society, Latrobe University, Melbourne, Australia. Page 9-11.

Heaton, R.K., Clifford, D.B. and Franklin, D.R. Jr. 2010. CHARTER Group. HIV-associated neurocognitive disorders persist in the era of potent antiretroviral therapy: CHARTER Study. *Neurology*, 75(23):2087-2096.

Letendre, S.L., Ellis, R.L., Ances, B.M. and Mc-Cutan, J.A. 2010. Neurologic complications of HIV disease and their treatment. *Topics in HIV Medicine*, 18(2):45-55.

McDonald, K., Elliott, J. and Saugeres, L. 2013. Ageing with HIV in Victoria: findings from a qualitative study. HIV Australia, 11(2):July. https://www.afao.org.au/library/hiv-australia/volume-11/vol.11-number-2/ageing-with-hiv-in-victoria-findings-from-a-qualitative-study#.VnCy6jq4ZZQ (accessed 28.10.15).

NSW Ministry of Health Australia. NSW HIV Strategy 2012-2015 Data Report. Quarter 1. Retrieved from http://www.health.nsw.gov.au/endinghiv/Documents/q1-2015-hiv-data-report.pdf on 15/10/2015. (accessed 28.10.15).

Robertson, K.R., Su, Z., Margolis, D.M., Krambrink, A., Havlir, D.V., Evans, S., Skiest, D.J. and for the A5170 Study Team. 2010. Neurocognitive effects of treatment interruption in stable HIV- positive patients in an observational cohort. *Neurology,* 74(16):1260-1266.

Schouten, J., Cinque, P., Gisslen, M., Reiss, P. and Portegies, P. 2011. HIV-1 infection and cognitive impairment in the cART-era: a review. *AIDS*, 25(5):561-575.

Schouten, J., Wit, F.W., Stolte, I.G., van der Valk, M., Geerlings, S.E., de Wolf, F., Prins, M. and Reiss, P. on behalf of the AGEhIV Cohort Study Group. 2012. Comorbidity and ageing in HIV-1 infection: the AGEhIV Cohort Study. Oral abstract. AIDS 2012: XIX International AIDS Conference: Abstract THAB0205. Presented July 26, 2012.

Skinner, S., Adewale, A.J., DeBlock, L., Gill, M.J. and Power, C. 2009. Neurocognitive screening tools in HIV/AIDS: comparative performance among patients exposed to antiretroviral therapy. *British HIV Association HIV Medicine,* 10:246-252.

Thames, A.D., Kim, M.S., Becker, B.W., Foley, J.M., Hines, L.J., Singer, E.J., Heaton, R.K., Castellon, S.A. and Hinkin, C.H. 2011. Medication and finance management among HIV-infected adults: The impact of age and cognition. *Journal of Clinical Experimental Neuropsychology,* 33(2):200–209.

Tedaldi, E.M., Minnitit, N.L. and Fischer, T. 2015. HIV-associated neurocognitive disorders: The relationship of HIV infection with physical and social comorbidities. *Biomed Research International,* (2015).

Tozzi, V., Balestra, P., Murri, R., Galqani, S., Bellagamba, R., Narciso, P., Antinori, A., Giulianelli, M., Tosi, G., Fantoni, M., Sampaolesi, A., Noto, P., Ippolito, G., Wu, A.W. 2004. Neurocognitive impairment influences quality of life in HIV-infected patients receiving HAART. *International Journal STD and AIDS,* 15(4):254-259.

Trotter, G. and Cummins, D. 2008. HIV – Associated MND (Mild Neurocognitive Disorder). How to recognize signs and symptoms. Booklet. Abbott virology.

Valcour, V.G., Shikuma, C.M., Watters, M.R. and Sacktor, N.C. 2004. Cognitive impairment in older HIV-1-seropositive individuals: prevalence and potential mechanisms. *AIDS*, 18(Suppl 1):S79–86.

Woods, P.S., Moore, D.J., Weber, E., and Grant, I. 2009. Cognitive Neuropsychology of HIV-Associated Neurocognitive Disorders. *Neuropsychology Review*, 19(2):152–168.

Wright, E., and Watson, J. 2012. HIV Life Plan Clinical Guide: A clinician’s guide to assessing and managing HIV-associated comorbidities. Booklet. ViiV Healthcare. Page 45-53.

Australian undergraduate nursing students' opinions on mental illness

AUTHOR

Rebecca Millar
RN, RMHN, MNurs (MH) (UniMelb), PDip Forensic Behavioural Science (Monash),
PDipNurs (MH) (UniMelb), BNurs (Deakin), PDipLegalPrac (ANU), LLB (VicUni),
Grad. Cert. Tertiary Ed., PhD (Candidate)
Victoria University
McKechnie Street
St. Albans, Victoria, Australia
Rebecca.millar@vu.edu.au

This research was wholly completed and funded by the Author.

KEYWORDS

competencies, forensics, mental health, nursing.

ABSTRACT

Objective
To determine second year Bachelor of Nursing students' opinions on mental illness and relationship with demographic data for the purpose of curriculum development.

Design
The present study is a pilot study for a larger project which will investigate undergraduate nursing student opinions across the duration of their undergraduate degree at an Australian university. The 'Student Opinions of Mental Illness Scale', a 53 point Likert type questionnaire was used in a sample of second year nursing students to investigate their opinions of mental illness.

Setting
Metropolitan nursing school in Victoria, Australia.

Subjects
133 second year undergraduate Bachelor of Nursing students'.

Main outcome measures
Student opinions based on Likert responses.

Results
The study revealed that student experiences, education, employment history of country of birth may impact upon student opinions of mental illness.

Conclusion
Overall, students were found to have a generally neutral opinion about mental illness except in the sub-scale factors of benevolence, mental hygiene ideology and interpersonal aetiology where students held less positive opinions. Knowing the student populations opinions about a subject matter can assist academics to direct and focus their efforts to improve those opinions in those areas.

INTRODUCTION

Background

Many authors have recognised the importance of understanding and recognising students' perceptions of mental illness. A number of studies have also been conducted using an undergraduate nursing population throughout the world, including Jordanian (Hamaideh and Mudallal 2009), Japanese (Takashi et al 2011) and British (Schafer et al 2011) students. Only one study has, however, investigated undergraduate nursing students' opinions about mental illness within an Australian population (Happell 2009). All of these studies again used Likert type scale questionnaires, including the 'Opinions of Mental Illness Scale' created by Cohen and Struening (1962). In all of these studies the researchers consistently found that students' opinions about mental illness improved with increased contact with people with mental illness and/or with more mental health education. Several authors, such as Hamaideh and Mudallal (2009) and Happell (2009), also hypothesised that any negative opinions that remained after training and education, highlighted an opportunity for further curriculum development. The larger study for which this pilot is a precursor, will be the first of its kind to follow a sample of undergraduate nursing students throughout their degree to determine how opinions shift or change and what it is that influences those opinions.

Significance

Research suggests that stress in the learning environment can lead to poor coping skills, subsequently damaging the students' ability to academically perform to the best of their ability (Duffy 2009; Tully 2004). It is important to identify any stress or anxiety experienced by students in order to be able to provide support and assistance, thereby promoting a positive learning experience. Where stress is not managed, students' abilities in the clinical arena may be negatively affected, such as by impairing their interactions with clients and subsequently failing to meet clinical objectives (Duffy 2009; Tully 2004). After recognising this in a population of undergraduate nursing students, Ganzer and Zauderer (2013) developed a program designed to alleviate these stressors and improve the learning experience. Although not studied at an undergraduate student level, negative opinions on mental illness held by health care professionals have been shown to impede upon achieving professional competence in nursing (Crisp 1999).

The findings of this research can be used to inform future mental health nursing curriculum. In particular, the study highlights the need to consider the demographics of the student population and the effect of those demographics on student opinions. This may determine particular areas of learning that require more time allocation or indicate where one method of teaching is required over another (for example the use of real case simulation exercises versus use of theory and written activities). The results of this study will be directly considered when developing the third year mental health unit including designing the course material and delivery methods for each module of learning. The results will also be used to inform the larger project which may in turn inform future curriculum development, particularly in relation to the quantity, timing and content of mental health nursing units.

Aim

This study is a pilot study for a larger project investigating students' attitudes towards mental illness throughout their progression through a three year undergraduate pre-registration nursing degree. This pilot study tested the research design and tools in a smaller population of students. The overall aim of this study was to investigate nursing students' perceptions of mental illness.

Research questions included:

1. What are second year undergraduate nursing students' opinions about mental illness? Do demographic variables affect these attitudes?
2. Does a mental health placement and/or exposure to people with mental illness affect students' opinions about mental illness?
3. What are the limitations or difficulties, if any, of the study design that need to be considered when conducting the larger study?

METHODS

Sample and recruitment

A Victorian University located in Melbourne was chosen as the site for this study. This site was chosen out of convenience. Permission was received from the Universities Human Research and Ethics Committee to conduct the study. All participants were over the age of 18. All participation was voluntary, however participants were offered a small incentive to participate (a chance to go in the draw for movie tickets) in order to promote recruitment. Researcher bias was limited as the participants had no direct contact with the researcher throughout the data collection process, and all completed questionnaires remained anonymous.

A convenience method of sampling was used, with all second year students invited to participate. Due to researcher time pressures, the study was only conducted face to face, with no online option available for participation. No advertising was conducted. Students were invited to participate by their tutors in their acute care tutorial. Recruitment and completion of the study occurred simultaneously, with completion of the questionnaire indicating consent to participate.

Instruments

The study used the 'Opinions on Mental Illness Scale' (Cohen and Struening 1962), which was initially developed to investigate the opinions on mental illness of staff at two large "mental hospitals" in New York. The 53 item questionnaire asks participants for their opinions about mental illness over five dimensions ('factors'): (A) authoritarianism, (B) benevolence, (C) mental hygiene ideology, (D) social restrictiveness, and (E) interpersonal aetiology. The questionnaire is presented in a Likert format with provision following each item for a checked response on a six point agreement continuum.

The validity and reliability correlation coefficients for each of the OMI factors are above 50 in each factor except for Factor D (Cohen and Struening 1962). The authors justified the poorer reliability of Factor D as Factor D having been found to have high validity coefficients and significant demographic correlates, therefore deeming its reliability as 'adequate' for the purposes of meeting the objectives of the tool (Cohen and Struening 1962). The OMI tool has been used on numerous occasions since its development, including for the determination of the opinions of mental illness of undergraduate students from a variety of health related fields (Takashi et al 2011; Probost and Peuskens 2010; Hamaideh and Mudallal 2009).

Data collection and procedure

In the present study, data was collected at the end of semester two, after students had completed their first mental health unit in their nursing degree. Participants were invited to complete the questionnaire at the end of an acute care tutorial and had the option of either completing the questionnaire in class or returning it to a confidential box left available in a shared space of the Nursing building. All data entry and analysis was conducted by the primary researcher using the Statistical Package for the Social Sciences (version 22).

Strengths and weaknesses

The results of this study will only be generalisable to similar student cohorts where similar teaching and learning methods are employed to those used during the study. A significant weakness of this study is the small sample size. A small sample size has the effect of reducing the likelihood that any statistically significant result reflects a true result (Button et al 2013) and therefore limits the reliability of these results. Whilst this limits the ability to reliably apply the results to other cohorts of students, and despite this sample being only 10% of the total of second year nursing students, these results may be used when considering curriculum content requirements for this cohort of students in the future. Again, however, this is further limited as little is known about the representativeness of the sample against the larger population.

The major strength of this study is its ability to be reproduced in a consistent manner. Although the current research design yielded few results, with amendments to the recruitment process and increased flexibility in method of participation, the instrument used continues to appear to be a reliable and efficacious method for determining students' opinions on mental illness.

FINDINGS

Sample and recruitment

A total of 133 students participated in the study. The average participant age was 24 (*SD* 5.4), with more women than men participating (6 men to 27 women). Reflective of the larger student population, participants' places of birth were worldwide (see figure 1). Although the majority of participants were born in Australia, they were 50% more likely to have had both parents born outside of Australia. The majority of students had some form of current employment at the time of completing the questionnaire, with only five participants reporting they were unemployed. Whilst occupations varied, 39% of participants were working in a health care related field, either as a personal care assistant ('PCA') or as an enrolled nurse ('EN') (see figure 2). Participants were not asked the amount of hours they worked or length or employment. Almost half of the participants held a prior health related qualification at a certificate or diploma level (see figure 3).

Figure 1: Country of Birth

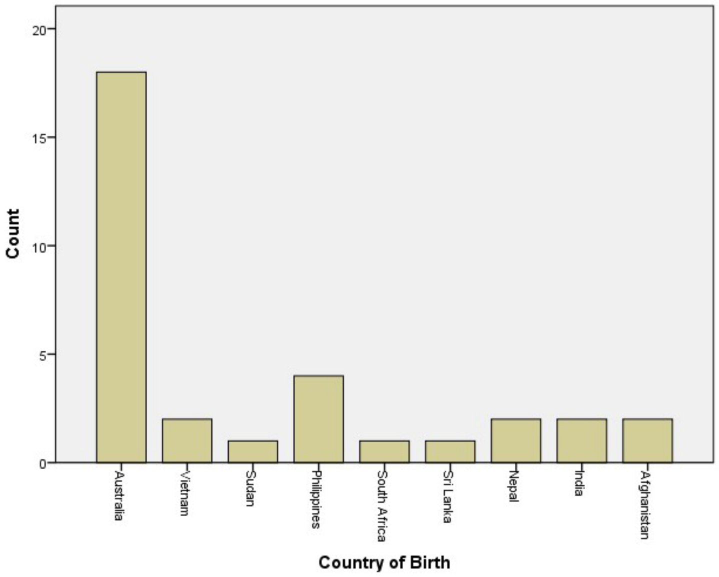


Figure 2: Participants' employment

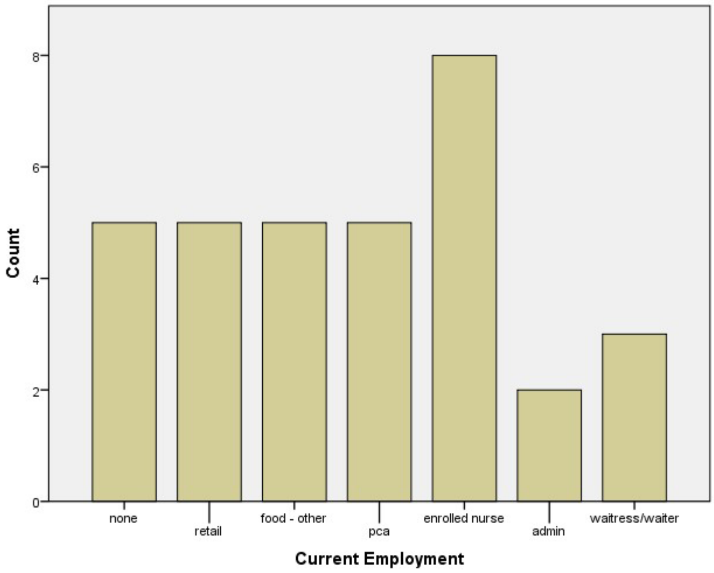
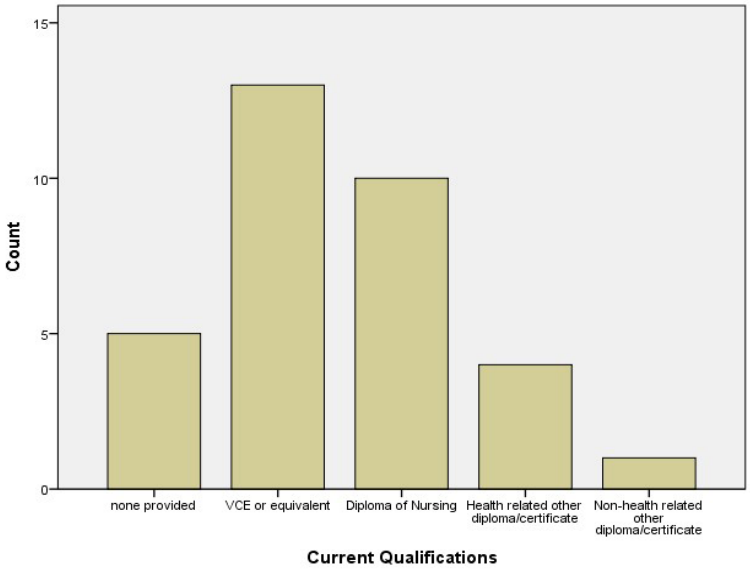


Figure 3: Qualifications



In addition to prior qualifications and prior employment, participants were asked to report their experiences with people with mental illness, including whether they had a family member or friend with mental illness, whether they had had contact with a person with a mental illness over the past year (and the context of that contact) and whether or not they had been on their mental health clinical placement at the time of completing the questionnaire. Whilst all of the students had completed the theory component of the second year mental health nursing unit, only 20% had completed their mental health clinical practice component. Despite this, 88% of participants had had some form of contact with a person with mental illness, although the majority of those were contacts within the clinical placement. Nearly 29% of participants reported having a family member or friend with diagnosed mental illness, however, what kind of mental illness was not asked.

Data analysis

Data was explored for any relationships between demographic data, education and employment experiences (including mental health placement) and opinions of mental illness. The tool used yields five factors: Factor A: Authoritarianism; Factor B: Benevolence; Factor C: Mental hygiene ideology; Factor D: Social restriction; and Factor E: Interpersonal aetiology. The mean scores obtained from participants for each factor are included in table 1. Because on the 6-point Likert scale 1 = *Strongly Agree* and 6 = *Strongly Disagree*, in general, higher scores in a sub-scale indicate a more positive attitude. Low scores (< 3) reflect a generally less positive attitude towards mental illness. Overall, on average participants had neutral to positive attitudes to mental illness, however, those factors which were most positive (factors A & D) had higher standard deviations, indicating low reliability.

Table 1: Opinions on mental illness

Factor	Mean	Standard Deviation
Authoritarianism	3.8005	1.06692
Benevolence	3.2152	0.85737
Mental Hygiene Ideology	3.1185	0.84351
Social Restrictiveness	4.1873	1.69846
Interpersonal Aetiology	3.5498	1.00008

Data was analysed for differences in mean scores dependent on each demographic variable using Independent Samples t-tests calculations (see table 2). On average, younger people (aged 20-29) scored significantly higher in Factors A (M 3.840, SD 0.785) and B (M 3.247, SD 0.735) reflecting more positive attitudes than older participants (A: M 4.750, SD 2.10; B: M 3.70, SD 0.264). Female participants' attitudes were significantly different to male participants' attitudes across all subscales, and were more likely to have more positive attitudes then males. There was a significant effect for country of birth, with those born in Australia found to have significantly more positive attitudes towards mental illness than those born in any other country (M 4.252, SD 1.152). Participant qualifications had no statistically significant effect on opinions whilst employment had a significant effect on factors A (authoritarianism) and E (interpersonal aetiology) only. There appeared to be no statistically significant effects on opinions whether the participant knew a person with mental illness or not (see table 3).

Table 2: Independent Samples t-tests – demographic data

Domain of study	Age		Gender		Country of Birth		Fathers Country of Birth		Mothers Country of Birth	
	t	*p*	*t*	*p*	*t*	*p*	*t*	*p*	*t*	*p*
Factor A: Authoritarian	1.274	0.214	1.138	0.264	2.973	0.006	2.082	0.046	2.564	0.015
Factor B: Benevolence	0.755	0.457	1.050	0.302	1.159	0.255	-0.045	0.964	0.978	0.336
Factor C: Mental Hygiene Ideology	1.595	0.123	0.913	0.368	1.078	0.289	-0.159	0.875	1.192	0.242
Factor D: Social Restrictiveness	1.157	0.258	0.801	0.429	0.855	0.399	0.714	0.481	1.422	0.165
Factor E: Interpersonal Aetiology	-0.766	0.451	0.906	0.372	3.221	0.003	2.066	0.047	2.433	0.021

Table 3: Independent Samples t-tests – Exposure to a person with mental illness

Domain of study	Qualifications		Employment		Mental Health Placement		Person with MI Known	
	t	*p*	*t*	*p*	*t*	*p*	*t*	*p*
Factor A: Authoritarian	-1.714	0.097	-1.827	0.077	-0.617	0.542	0.696	0.491
Factor B: Benevolence	-0.948	0.350	-1.345	0.188	-0.769	0.448	0.729	0.471
Factor C: Mental Hygiene Ideology	-0.271	0.788	-0.225	0.824	1.408	0.169	1.016	0.317
Factor D: Social Restrictiveness	-1.272	0.213	-1.246	0.222	-0.798	0.431	0.021	0.983
Factor E: Interpersonal Aetiology	-1.875	0.070	-2.533	0.017	-2.690	0.011	0.807	0.426

DISCUSSION

Implications for teaching

Knowledge of student demographic.

This study has found that students in their second year of nursing generally have neutral attitudes towards mental illness in relation to benevolence and mental hygiene ideology, but more negative attitudes in relation to authoritarianism, social restrictiveness and interpersonal aetiology. This is consistent with recent literature, which suggests that practicing health professionals hold more negative attitudes towards mental illness than members of the general public (Crisp et al 2000). It is thought, however, that practicing clinicians may hold more negative attitudes due their exposure to and understanding of the reality of mental illness (Jorm et al 1999). Whilst exposure to mental illness was found to have little effect of students' attitudes in the present study, country of birth and age were found to have a significant effect of student attitudes. Although these results may not be reliable due to the small sample size, it does indicate that academics should consider the background of their students when creating and developing curriculum content for teaching mental health nursing.

It has long been accepted in the literature that one's culture can affect their perception of physical and emotional states, interpretation of symptoms, willingness to engage in medical care and treatment as well as the expected response to illness of others around them (Angel and Thoits 1987). In particular, people from Asian cultures have been found to hold quite authoritarian views about treatment of mental illness and tend to be pro- social restrictiveness (Ng 1997), with similar results having been found in the present study. The present study indicates a need to tailor teaching in a manner which may change or improve less positive attitudes towards mental illness that are related to the effects of students cultural backgrounds. Whilst many educational programs have been found to be successful in improving the positivity of students' attitudes towards mental illness, across a variety of health disciplines (Rusch et al 2005; Corrigan et al 2001), the literature often fails to report in detail about the components of those programs that led to its success. It may be that direct academic to academic contact is required or more attention paid to this area of education at mental health and nursing education conferences in order to bring the issue into the open, enabling sharing of recommendations and resources to improve student opinions.

Tailoring teaching.

Students were found to have less positive attitudes towards mental illness in three of the five sub-scales: authoritarianism, benevolence and mental hygiene ideology. Although limited research has been conducted in this area, some authors report negative attitudes to subject matter can have a negative impact on student engagement and learning (Brophy 1983). Whilst further research is required, given that students were found to hold negative opinions about mental illness, this study indicates a need to promote student engagement. Without learning through engagement, students' negative attitudes are likely to continue, further perpetuating the negative opinions and hindering future engagement in a vicious cycle. Fear and anxiety about the subject matter has also been found to limit student engagement. Whilst not directly measured in this study, students who hold more authoritarian and pro- social restrictiveness attitudes towards mental illness may do so out of fear and anxiety.

This study has found that students personal, including academic and professional experiences, can have a significant effect on opinions on mental illness (although not to a statistically significant level). For academics, this is not a surprising finding. Students across all disciplines often report that they learn just as much outside of the classroom as they do inside the classroom (Hu and Kuh 2003; Kuh 1995), so it is not surprising to see these factors affecting students' opinions in this manner. In fact, the effect of out of classroom experiences is evident in the present study's findings of the significance of the effect of a mental health placement on student opinions on mental illness. It is imperative, however, that these less positive attitudes are improved throughout students nursing education. Studies in both health care (Shahrabani and Benzion 2012) and non-healthcare (Holt-Reynolds 1992) environments have found personal attitudes and beliefs can significantly affect professional practice behaviours. Although not investigated in the context of mental health, in theory, a student who holds more authoritarian views on mental illness, for example, may graduate to become a practicing clinician who practises within these attitudes. This may lead to more restrictive interventions with clients or, in the case of factor B (benevolence), treating clients with less empathy and care.

Implications for further study

Although not investigated in this study, teaching activities embedded within mental health nursing units may be designed to consider those factors that can impact on students' opinions on mental illness. Given the diversity of the student population, future studies may wish to use a similar data collection tools in a pre and post intervention method to identify the usefulness of specifically designed classroom activities to improve student opinions about mental illness. Given the significance of cultural background on student opinions, specific focus should be given (either in class or in assessment activities) to explore different cultural understanding of mental illness to draw students attention to this for personal preparation for learning. Consideration should also be given to the design of future similar research, in particular to the need for advertising and flexibility in participation methods to improve recruitment and, subsequently, the reliability of the results.

CONCLUSION

Negative opinions of mental illness have been found to affect students learning and can affect future clinical practice. This study used a quantitative methodology to investigate the opinions of second year Bachelor of Nursing students at a University in Melbourne. Using the 'Opinions of Mental Illness Scale', a total of 133 students participated in the study. Overall, students were found to have a generally neutral opinion about mental illness except in the sub-scale factors of benevolence, mental hygiene ideology and interpersonal aetiology where students held less positive opinions. Knowing the student populations opinions about a subject matter can assist academics to direct and focus their efforts to improve opinions in those areas. Whilst several authors have reported on programs that may assist in improving attitudes towards mental illness, very few sufficiently report on the detail of those programs to enable their reproduction. This study has highlighted an area of need for further investigation into the elements of educational programs that can assist in improving student opinions about mental illness. It is also recommended that this area receive more attention in nursing education forums, as sharing ideas and teaching experiences may improve the teaching and learning experience and, ultimately, improve client care.

REFERENCES

Angel, R. and Thoits, P. 1987. The impact of culture on the cognitive structure of illness. *Culture, Medicine and Psychiatry,* 11(4):465-494.

Brophy, J. 1983. Research on the self-fulfilling prophecy and teacher expectations. *Journal of Educational Psychology, 75*(5), 631-661.

Button, K.S., Ioannidis, J.P., Mokrysk, C., Nosek, B.A., Flint, J., Robinson, E.S. and Munafo, M.R. 2013. Power failure: why small sample size undermines the reliability of neuroscience. *Natural Review of Neuroscience,* 14(5):365-376.

Cohen, J. and Struening, E. 1962. Opinions about mental illness in the personnel of two large mental hospitals. *Journal of Abnormal and Social Psychology,* 64(5):349-360.

Corrigan, P., River, P., Lundin, R., Penn, D., Uphoff-Wasowksi, K., Campion, J., Mathisen, J., Gagnon, C., Bergman, M., Goldstein, H., & Kubiak, M. 2001. Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin,* 27(2):187-195.

Crisp, A. 1999. The stigmatisation of sufferers with mental disorders. *British Journal of General Practice, 49*,3-4.

Crisp, A., Gelder, G., Meltzer, H. and Rowlands, O. 2000. Stigmatisation of people with mental illnesses. *The British Journal of Psychiatry,* 177:4-7.

Duffy, A. 2009. Guiding students through reflective practice - the preceptors experiences: A qualitative descriptive study. *Nurse Education in Practice,* 9(3):166-175.

Ganzer, C. and Zauderer, C. 2013. Structured learning and self-reflection: strategies to decrease anxiety in the psychiatric mental health clinical experience. *Nursing Education Perspectives,* 34(4):244-247.

Hamaideh, S. and Mudallal, R. 2009. Attitudes of Jordanian nursing students towards mental ilness: the effect of teaching and contact on attitudes change. *College Student Journal,* 43(2):335-347.

Happell, B.G. 2009. Nursing students' attitudes to mental health nursing: psychometric properties of a self-report scale. *Archives of Psychiatric Nursing,* 23(5):376-386.

Holt-Reynolds, D. 1992. Personal history-based beliefs as relevant prior knowledge in course work. *Education and Educational Research,* 29(2):325-349.

Hu, S. and Kuh, G. 2003. Diversity experiences and college student learning and personal development. *Journal of College Student Development,* 44(3):320-334.

Jorm, A., Korten, A., Jacomb, P., Christensen, H. and Henderson, S. 1999. Attitudes towards people with a mental disorder: a survey of the Australian public and health professionals. *Australian and New Zealand Journal of Psychiatry,* 33(1):77-83.

Kuh, G. 1995. The other curriculum: Out of class experiences associated with student learning and personal development. *The Journal of Higher Education,* 66(2):123-155.

Ng, C. 1997. The stigma of mental illness in Asian cultures. *Australian and New Zealand Journal of Psychiatry,* 31(3):382-390.

Probost, M. and Peuskens, J. 2010. Attitudes of Flemish physiotherapy students towards mental health and psychiatry. *Physiotherapy, 96*, 44-51.

Rusch, N., Angermeyer, M. and Corrigan, P. 2005. Mental illness stigma: Concepts, consequences, and initiatives to reduce stigma. *European Psychiatry,* 20(8):529-539.

Schafer, T., Wood, S. and Williams, R. 2011. A survey into student nurses' attitudes towards mental illness: Implications for nurse training. *Nurse Education Today,* 31, 328-332.

Shahrabani, S. and Benzion, U. 2012. How experience shapes health beliefs. *Health Education Behaviour,* 39(5):612-619.

Takashi, Y., Semba, T., Sudo, A., Takahasi, N., Nakamura, H., Yoshimura, K., Koyama., H., Ishigami, S., & Takeshima, R. 2011. Effects of psychiatric training on nursing students' attitudes towards people with mental illness in Japan. *International Journal of Social Psychiatry,* 57(6):574-579.

Tully, A. 2004. Stress, sources of stress and ways of coping among psychiatric nursing students. *Journal of Psychiatric and Mental Health Nursing,* 11(1):43-47.

Victoria University Bachelor of Nursing. (n.d.). http://www.vu.edu.au/courses/bachelor-of-nursing-hbnb (accessed 14.02.14).

June 2017 - August 2017
Volume 34 Issue 4

AJAN

australian journal of advanced nursing

An international peer reviewed journal of nursing research and practice

34:4

IN THIS ISSUE

RESEARCH PAPERS

SCHOLARLY PAPERS

THE AUSTRALIAN JOURNAL OF ADVANCED NURSING

The Australian Journal of Advanced Nursing aims to provide a vehicle for nurses to publish original research and scholarly papers about all areas of nursing. Papers will develop, enhance, or critique nursing knowledge and provide practitioners, scholars and administrators with well-tested debate.

The AJAN will:

- publish original research on all nursing topics
- publish original scholarly articles on all nursing topics
- process manuscripts efficiently
- encourage evidence-based practice with the aim of increasing the quality of nursing care
- provide an environment to help authors to develop their research and writing skills
- provide an environment for nurses to participate in peer review

ISSN 1447-4328

Copyright

Indexing

The AJAN is indexed in the CINAHL (Cumulative Index to Nursing and Allied Health Literature) Database, Current Contents, International Nursing Index, UnCover, University Microfilms, British Nursing Index, Medline, Australasian Medical Index and TOC Premier.

PRODUCTION

Editor
Lee Thomas

Journal Administrator
Anne Willsher

Publisher and Editorial Office
Australian Nursing and Midwifery Federation
PO Box 4239
Kingston ACT, Australia 2604
tel +61 2 6232 6533
fax +61 2 6232 6610
email: ajan@anmf.org.au
http://www.ajan.com.au

AJAN
australian journal of advanced nursing

June 2017 - August 2017
Volume 34 Issue 4

CONTENTS

RESEARCH PAPERS

SCHOLARLY PAPERS

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: AUSTRALIA

AUSTRALIAN JOURNAL OF ADVANCED NURSING REVIEW PANEL: INTERNATIONAL

Rotating shift work and colorectal cancer among nurses and midwives: a cross-sectional study

AUTHORS

Kalana Wickremaratne
RN, BN,Honours Scholar
School of Nursing, Midwifery and Social Work
University of Queensland, QLD, Australia
kalana.wickremaratne@uqconnect.edu.au

Haakan Strand
RN, NP, PhD, Senior Lecturer
School of Nursing, Midwifery and Social Work
University of Queensland, QLD, Australia
h.strand@uq.edu.au

Isabella Zhao
RN, PhD, Postdoctoral Research Fellow
School of Nursing, Midwifery and Social Work
University of Queensland, QLD, Australia
i.zhao@uq.edu.au

Funding

The original cohort study upon which this study was based was funded by a number of organisations including two Australian Research Council (ARC) grants SLP0562102 and SR0566924; an Australian National Health and Medical Research (NHMRC) grant 20052108A and a New Zealand Health Research Council (NZHRC) grant 456163.

Conflict of interest

Authors declare no conflict of interest.

KEY WORDS

Rotating shift work, shift work, colorectal cancer, colon cancer, nurses, midwives

ABSTRACT

Objective

The main aim of this study was to explore any association between colorectal cancer (CRC) and rotating shift work in nurses and midwives. The secondary aim of this study was to identify risk factors for CRC in nurses and midwives who are rotating shift workers.

Design

Cross-sectional study.

Setting

Electronic survey of participants from Australia, New Zealand and the United Kingdom.

Subjects

A sample of 8,199 male and female nurses and midwives from Australia, New Zealand and the United Kingdom invited through their registration papers or newsletter advertisement.

Main outcome measure

Prevalence of CRC in participants who have worked rotating shifts for 1-14 years or ≥15 years compared to participants who have never worked rotating shifts. In addition, risk factors for CRC in the rotating shift work population were analysed in a multivariate logistic regression model in order to obtain odds ratio of CRC.

Results

No statistically significant difference was found in the prevalence of CRC between those who have never worked rotating shift work, worked 1-14 years and worked 15 or more years.

Among rotating shift workers, diabetes was associated with a 123-fold (95% CI 39-392; p<0.001) increased odds of CRC, while Inflammatory Bowel Disease (IBD) was associated with a 190-fold (95%CI 68-526; p<0.001) increased odds of CRC. Screening colonoscopy or sigmoidoscopy for CRC was associated with a 10-fold (95% CI 3-35; p<0.001) increased odds of being diagnosed with CRC.

Conclusion

No significant association was found between rotating shift work and colorectal cancer in nurses and midwives. In nurses and midwives who are rotating shift workers, diabetes, IBD and CRC screening significantly increased the odds of CRC.

INTRODUCTION

The twenty-four hour nature of healthcare demands many nurses and midwives work in shifts. Around 40% of nurses and midwives work rotating shifts (Holland et al 2012). Rotating shift work involves shifts that vary regularly between morning, afternoon and night (International Labour Office 2004). Shift work can have deleterious effects on nurses' physical, mental, and social wellbeing (Matheson et al 2014). In recent times, there has been a growing interest in research on the association between shift work and cancer. The International Agency for Research on Cancer in 2007 classified shift work involving circadian disruption as a probable carcinogen (International Agency for Research on Cancer 2007). A number of possible mechanisms have been proposed to explain the suggested carcinogenicity of shift work. Light exposure at night supresses melatonin, a hormone that regulates sleep-wake cycle and appears to have oncostatic effects (Hill et al 2015; Stevens and Zhu 2015). Circadian disruption may affect clock-related gene expression in cells which may lead to tumourgenesis (Masri et al 2015; Kelleher et al 2014).

A recent meta-analysis investigating night shift work and colorectal cancer (CRC) by Wang et al (2015) found odds of CRC is increased by 11% (OR=1.11, 95% CI 1.03–1.20) for every five years of night shift work. Two studies on the association between rotating shift work and CRC among nurses have been conducted in the Nurses' Health Study. Firstly, Schernhammer et al (2003) prospectively followed up a cohort from the Nurses' Health Study between 1988 and 1998. They found a 35% (RR=1.35, 95% CI 1.03-1.77) increased risk of CRC in nurses who worked rotating shifts for 15 or more years in a multivariate hazard ratio analysis. The second study investigated all-cause and cause-specific mortality, including CRC, of nurses from Nurses' Health Study between 1988 and 2010 (Gu et al 2015). They found an increase in CRC mortality and rotating shift work, but when adjusted for a number of variables, the result was not statistically significant.

A meta-analysis by Johnson et al (2013) found a number of risk factors associated with CRC. These were inflammatory bowel disease (IBD), family history, increased BMI, red meat intake, cigarette smoking, low physical activity, and low fruit and vegetable consumption. CRC is the second leading cause of cancer death and it is amongst the top ten leading causes of death in Australia (Australian Bureau of Statistics 2015). Therefore, it is vital to conduct epidemiological studies to investigate the possible link between shift work and CRC. The primary aim of this cross-sectional study is to explore any association between CRC and rotating shift work among nurses and midwives. The secondary aim is to identify prevalence of other risk factors for CRC in this population.

METHODS

This cross sectional study utilised self-reported data from Nurses and Midwives e-cohort Study (NMeS). NMeS was an internet-based longitudinal study designed to examine health and workforce factors in nurses and midwives. The present study uses survey 1 from that cohort study. This survey collected data from nurses and midwives from Australia, New Zealand and the United Kingdom (UK). The survey was opened from 1st April 2006 to 31st March 2008. In Australia and New Zealand, nurses and midwives received their invitations along with annual registration papers. In the UK, potential participants were invited through an advertisement in the UK Nursing and Midwifery Council's quarterly newsletter. The participants were directed to a website (http://www.e-cohort.net), where consent, and demographic and work details were obtained. The survey contained various instruments, and answering each question was voluntary. Participants were given a unique ID and were not identifiable in the data analysis. Data collection and management of NMeS are described in papers by Schluter et al (2011) and Huntington et al (2009).

The outcome variable was a self-reported diagnosis of CRC. The participants were asked *"have you ever been professionally diagnosed with colon or rectal cancer?"* for which they could answer either yes or no.

The exposure variable was rotating shift work. The participants were asked "what is the total number of years during which you worked rotating shifts?" Available answers were – never, 1-2 years, 3-5 years, 6-9 years, 10-14 years, 15-19 years, or 20 or more years. For the primary analysis of this study, these were categorised into 3 variables as never, 1-14 years, and 15 or more years. These categories reflect those used in a similar study by Schernhammer et al (2003).

A number of covariates were included. These were age, gender, menopausal status, ever use of oral contraceptives (OC), BMI, smoking, alcohol consumption, red meat intake, vegetable intake, fruit intake, physical activity, sleep duration, family history of CRC, diabetes, IBD and screening colonoscopy or sigmoidoscopy. BMI was calculated from height and weight provided by participants. Smoking status was classified as current smoker, former smoker and never smoker. Pack years were calculated from the number of cigarettes per day multiplied by the number of years smoked, divided by 20. Pack year data was only available for current smokers. Alcohol intake was calculated based on a food frequency questionnaire adapted from Willett et al (1985). Participants provided frequency of consumption for alcoholic beverages - light beer, heavy beer, red wine, white wine, and spirits. This frequency was multiplied by alcohol content of each beverage to derive daily consumption of alcohol. Red meat intake, vegetable intake and fruit intake were extracted from Australian Recommended Food Score (ARFS) (Collins et al 2008) where participants answered yes or no to 74 items relating to diet. Red meat intake variable was derived as having had any of veal, beef, lamb or pork 1-4 times per week which were individually selected by participants as part of ARFS. Data regarding other types of red meat were not available from ARFS. Physical activity was calculated using the long form version of International Physical Activity Questionnaire (IPAQ) (Craig et al 2003). This questionnaire surveys respondents' physical activity from a range of domains such as time spent in leisure, transport, job, and domestic/garden work. Metabolic equivalent of tasks (MET) is the amount of oxygen consumed while sitting at rest. Multiples of MET provide the energy cost of physical activities as multiples of basal metabolic rate at rest (Jetté et al 1990). The number of minutes spent in each activity as surveyed from participants could be weighted according to intensity and converted to MET minutes per week (Craig et al 2003). Sleep duration responses provided by participants were categorised to three groups - 5 hours or less, 6-8 hours, 9 or more hours. These categories are due to two studies indicating a short sleep duration of <6 hours (Thompson et al 2011) and a long sleep duration of ≥9 hours (Zhao et al 2013) may be associated with an increased risk of CRC. Participants were asked whether they have had a colonoscopy or a sigmoidoscopy in the last 2 years, with possible answers – no, yes-for symptoms, and yes-for routine screening. We have excluded those who chose "yes for symptoms".

Statistical analysis was performed using STATA 14.0. Calculations were based on non-missing data. Chi-squared test was used for categorical variables. Fisher's exact test was used instead of chi-squared test when less than 80% of cells had an expected count of less than five. T-test was performed on continuous variables. Frequencies and percentages for categorical variables; and frequencies, percentages, means, and standard deviations are reported for continuous variables. Results with a p-value <0.1 were fed into a backward stepwise logistic regression model. This enabled calculation of odds ratios and 95% confidence intervals. A p-value <0.05 was considered significant.

FINDINGS

The number of participants who answered both the outcome variable and the exposure variable were 7,303 out of 8,199. The prevalence of having ever had diagnosis of CRC was 1.03% (n=7), 0.98% (n=47), 1.32% (n=24) in the never group, 1-14 years group and ≥15 years group respectively. There was no significant association between rotating shift work and colorectal cancer (p=0.481). Due to this large p-value no further analysis from the above data was conducted.

Table 1: Prevalence of colorectal cancer in nurses and midwives by length of rotating shift work

Variable	Colorectal cancer Yes n(%)	 No n(%)	Chi-squared	p-value
Rotating shift work (n=7303)			1.47	0.481
Never	7(1.03)	671(98.97)		
1-14 years	47(0.98)	4,759(99.02)		
≥15 years	24(1.32)	1,795(98.68)		

Table 3: Risk factors, as continuous variables, for colorectal cancer among nurses and midwives who are rotating shift workers

	Colorectal cancer				
Variable	Yes		No		
	n(%)	M ± SD	n(%)	M ± SD	p-value
Age (n=6,624)	71(1.07)	47.04 ± 7.97	6,553(98.93)	43.95 ± 9.54	0.007^
BMI (n=6,513)	67(1.03)	28.28 ± 6.11	6,446(98.97)	27.36 ± 5.67	0.187
Physical activity MET/week (n=6323)	69(1.09)	4371 ± 4037	6,254(98.91)	3651 ± 3844	0.122
Pack years* (n=6,601)	70(1.06)	5.51 ± 14.99	6,531(98.94)	3.26 ± 10.69	0.082
Alcohol per day in grams (n=6414)	71(1.11)	9.02 ± 13.71	6,343(98.89)	8.44 ± 13.28	0.717

^p< 0.05; ^^p< 0.001; *for current smokers

Tables 2 and 3 display the prevalence of risk factors in the rotating shift working population. Participants with a history of CRC had a mean age of 47±8 years compared to a mean age of 44±10 in those without a history of CRC (p<0.05). A history of CRC was more common in post-menopausal women compared with pre-menopausal women; 1.68% vs 0.81% (p<0.05). A history of CRC was significantly far more prevalent in participants with diabetes than those without diabetes; 24.15% vs 0.22% (p< 0.001). A history of CRC was significantly far more prevalent in those with IBD than those without IBD; 43.07% vs 0.19% (p< 0.001). CRC was also more likely in nurses and midwives who had undergone CRC screening by colonoscopy or a sigmoidoscopy in the last two years. CRC prevalence did not significantly differ at p-value of 0.05 for non-modifiable risk factors of gender and family history. Neither did it differ for modifiable risk factors of OC use, smoking status, red meat intake, vegetable intake, fruit intake, sleep duration, BMI, physical activity, pack years, and alcohol intake.

Table 2: Risk factors, as categorical variables, for colorectal cancer among nurses and midwives who are rotating shift workers

	Colorectal cancer			
Variable	**Yes**	**No**	**Chi-squared**	**p-value**
	n(%)	**n(%)**		
Gender (n=6,625)			0.24	0.625
Male	7(1.28)	541(98.72)		
Female	64(1.05)	6,013(98.95)		
Menopause (n=6,065)			9.05	0.003^
No	35(0.81)	4,305(99.19)		
Yes	29(1.68)	1,696(98.32)		
Ever use of OC (females) (n=6,023)			0.55	0.458
No	7(1.36)	506(98.64)		
Yes	56(1.02)	5,454(98.98)		
Smoking status (n=6,612)			0.50	0.781
Never smoked	38(1.05)	3,580(98.95)		
Former smoker	22(1.02)	2,129(98.98)		
Current smoker	11(1.30)	832(98.70)		
Red meat intake 1-4 times per week (n=6,596)			0.01	0.921
No	11(1.03)	1,054(98.97)		
Yes	59(1.07)	5,472(98.93)		
4 or more vegetables per day (n=6,608)			0.08	0.779
No	21(1.13)	1,835(98.87)		
Yes	50(1.05)	4,702(98.95)		
2 or more fruit per day (n=6,604)			0.01	0.944
No	22(1.09)	1,999(98.91)		
Yes	49(1.07)	4,534(98.93)		
Sleep duration (n=6,611)			0.51	0.775
≤5 hours	6(1.13)	527(98.87)		
6-8 hours	63(1.09)	5,713(98.91)		
≥9 hours	2(0.66)	300(99.34)		
Family history of CRC (n=6,437)			1.69	0.194
No	60(1.03)	5,752(98.97)		
Yes	10(1.60)	615(98.40)		
Diabetic status (n=6,602)				<0.001^^*
No	14(0.22)	6,352(99.78)		
Yes	57(24.15)	179(75.85)		
IBD status (n=6,571)				<0.001^^*
No	12(0.19)	6,422(99.81)		
Yes	59(43.07)	78(56.93)		
Screening colonoscopy or sigmoidoscopy in the last 2 years (n=6,311)				0.008^*
No	58(0.96)	5,978(99.04)		
Yes	8(2.91)	267(97.09)		

^p< 0.05; ^^p< 0.001; *Fisher's exact

Table 4: Univariate odds ratios for variables with a p<0.1

	Odds of having colorectal cancer		
Variable	**OR**	**95% CI**	**p-value**
Categorical Screening colonoscopy or sigmoidoscopy in the last 2 years			
No	1.00*		
Yes	3.09	1.46 - 6.53	0.003^
IBD status			
No	1.00*		
Yes	404.81	209.31 - 782.91	<0.001^^
Diabetes status			
No	1.00*		
Yes	144.48	79.04 - 264.10	<0.001^^
Menopause			
No	1.00*		
Yes	2.10	1.28 - 3.45	0.003^
Physical activity			
Low	1.00*		
Moderate	0.52	0.21 - 1.29	0.160
High	1.08	0.48 - 2.41	0.857
Continuous			
Age	1.04	1.01 - 1.06	0.007^
Pack years	1.01	1.00 - 1.03	0.086

^p< 0.05; ^^p< 0.001; *reference group

Table 5: Multivariate odds ratios derived from logistic regression modelling

	Odds of colorectal cancer		
Variable	**Adjusted OR**	**95% CI**	**p-value**
Screening colonoscopy or sigmoidoscopy in the last 2 years			
No	1.00*		
Yes	10.13	2.97 - 34.57	<0.001^^
IBD status			
No	1.00*		
Yes	189.62	68.30 - 526.39	<0.001^^
Diabetes status			
No	1.00*		
Yes	123.20	38.75 - 391.77	<0.001^^

^p< 0.05; ^^p< 0.001; *reference group

Table 4 presents univariate odds ratios of variables with a $p<0.1$. These were input into a backward stepwise logistic regression model to provide adjusted odds ratios in table 5. As per adjusted odd ratios, having IBD increased the odds of having a history of CRC by 190 fold (95%CI 68-526; $p<0.001$). Nurses and midwives with diabetes also have 123-fold increased odds of having a history of CRC (95% CI 39-392; $p<0.001$). Having had a screening colonoscopy or sigmoidoscopy in the last 2 years also increased the odds of having a history of CRC by 10-fold (95% CI 3-35; $p<0.001$).

Age and menopause increased odds of CRC by 1.04 (95% CI 1.01-1.06; $p<0.05$) and 2.10 (95% CI 1.28-3.45; $p<0.05$) respectively. However this was not seen in the multivariate analysis.

DISCUSSION

We did not find any association between rotating shift work and CRC. This is in contrast to Schernhammer et al study (2003) which found an increased risk of CRC in nurses who worked 15 or more years (RR=1.35, 95% CI 1.03-1.77). The Schernhammer et al study differs from our study in many respects. It was a prospective longitudinal study that followed participants for 10 years, whereas our study was a cross-sectional study. Schernhammer et al study had a much larger number of participants. Moreover, the participants were American compared to Australian, New Zealander and British participants in our study. Ethnical distribution may be different in these cohorts which could possibly have an impact on the frequency of CRCs. In the present study, statistically significant risk factors in the rotating shift working population were age, menopause, diabetes, IBD, screening colonoscopy or sigmoidoscopy. In Australia, 98% of all CRCs occur in persons over the age of 40 (Australian Institute of Health and Welfare 2014). In our study the mean age in the CRC group was slightly higher. Increased prevalence of cancer in older age is common among many cancers. Accumulation of mutations over time as well as age-related signalling pathways have been hypothesised to explain this association (Bordonaro and Lazarova 2015). The observed association between CRC and menopause may be due to the fact that postmenopausal women tend to be older. Postmenopausal women tend to have lower estrogen levels compared to their younger counterparts (Honma et al 2015). Some studies show a reduction of CRC risk in postmenopausal women having hormone replacement therapy (Honma et al 2015). Our study did not find a statistically significant difference in CRC prevalence between those who have ever used oral contraceptives and those who have not.

In our study, IBD, diabetes, and screening colonoscopy or sigmoidoscopy considerably increased the odds of CRC. This may be due to the increased capacity of colonoscopy to diagnose CRC. The screening is done amongst specific population groups and therefore colonoscopy itself should not be seen as a risk factor, instead a mean for early detection. In terms of diabetes, a meta-analysis (Luo et al 2015) found that diabetes was associated with an increased risk of CRC (RR=1.37, 95% CI 1.30–1.45). Activation of insulin and insulin-like growth factor 1 receptors expressed in cancer cells due to hyperglycemia and hyperinsulinemia along with increased inflammatory cytokines have been proposed as possible mechanisms explaining this association (Sharma et al 2014). An Australian cohort study (Selinger et al 2014) reported a 7% (95% CI 4-10%) cumulative incidence of CRC among persons with ulcerative colitis (UC) and 2% (95% CI, 0%–4%) with Crohn’s disease (CD) at 30 years of follow-up. Selinger compared this incidence to corresponding age and gender matched general population, which were 1.9% for UC and 1.1% for CD. Over recent decades, there has been a substantial decrease in risk. A Danish study reported a RR of UC over background population of 1.34 (95% CI, 1.13–1.58) in 1979–1988 compared to 0.57 (95% CI 0.41–0.80) in 1999–2008 (Jess et al 2012). In the study, CD RR was 0.85 (95% CI, 0.67–1.07), which did not change over time. A 2013 meta-analysis states that IBD increases the risk of CRC but not as much as previously thought (Lutgens et al 2013). In patients with IBD, CRC is increased with the duration of the disease, the extent of colonic inflammation, family history of CRC, and coexisting primary sclerosing cholangitis. It has been proposed that chronic inflammation causes DNA damage through oxidative stress. This can cause a loss of tumour suppression gene function leading to increased proliferation of tumour cells (Beaugerie and Itzkowitz 2015). About 30% of CRC cases have a positive family history (Brosens et al 2015); however we were unable to find a statistically significant difference in our population. Notably, we did not find any statistically significant relationship with many other risk factors such as increased BMI, red meat intake, cigarette smoking, low physical activity, and low fruit and vegetable consumption, as found in the meta-analysis by Johnson et al (2013).

This study has a number of noteworthy limitations. This study analysed data from a pre-existing database which limited the inclusion of a number of important covariates such as vitamin d level, fibre intake, and familial syndromes. For example, between 2-5% of all CRC can be attributed to hereditary syndromes such as lynch syndrome and familial adenomatous polyposis, which considerably increase the risk of CRC in those individuals (Jasperson et al 2010). We were not able to gather data from participants regarding these syndromes; even though we asked them about their family history of CRC. Some data were missing as respondents did not answer all the questions. For example, out of 8199 participants only 7303 answered both questions on shift work and CRC, which amounts to around 11 percent missing observations. It is also notable that there are generally a small number of observations in the positive CRC group for each variable compared with the negative CRC group. This results in large differences in odds. This perhaps gives a greater effect size than it otherwise would have been if we had a much larger sample size (Nemes et al 2009). This study being cross-sectional, the results should be interpreted cautiously as it is possible for CRC to have preceded the risk factor which means causation cannot be assumed. The study contained data from three countries – Australia, New Zealand and the UK which means these findings may not translate to nurses and midwives of other countries. There could be a social desirability bias where respondents may have provided data which they thought were more socially appropriate. The objectivity of some data (for example, height and weight) should also be questioned as data were received through self-report. There could be a response bias inherent in this study design as those people who decided to take part in the survey may have been different from those who did not decide to participate. Some nurses may have been more comfortable using non-electronic means such as paper-based surveys.

Observational studies such as this attempt to identify risk factors that affect the health and wellbeing of nurses and midwives. Identification and mitigation of these risk factors may help ensure a sustainable workforce into the future. Future studies may consider if different work schedules such as permanent night shifts have different outcomes, and whether these differ from other shift worker populations such as police officers. Future studies may also evaluate costs associated with the loss of nurses and midwives from the workforce due to CRC. This may help with workforce planning. Other research opportunities may involve exploring how nurses and midwives manage their diabetes or IBD in the context of CRC.

CONCLUSION

In this cross-sectional study we did not find any significant association between rotating shift work and CRC in nurses and midwives. However, IBD and diabetes were correlated with an increased probability of CRC in nurses and midwives who were rotating shift workers. Further research should be conducted using a large prospective cohort design to investigate the effect of rotating shift work on CRC.

REFERENCES

Australian Bureau of Statistics. 2015. Causes of Death, Australia 2013. http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/3303.0~2013~Main%20Features~Leading%20Causes%20of%20Death~10001 (accessed 15.08.15).

Australian Institute of Health and Welfare (AIHW). 2014. Australian Cancer Incidence and Mortality. http://www.aihw.gov.au/acim-books/ (accessed 14.09.15).

Beaugerie, L. and Itzkowitz, S.H. 2015. Cancers Complicating Inflammatory Bowel Disease. *New England Journal of Medicine,* 372(15):1441-1452.

Bordonaro, M., and Lazarova, D. L. 2015. Hypothesis: cell signalling influences age-related risk of colorectal cancer. *Journal of Cellular and Molecular Medicine,* 19(1):74-81.

Brosens, L.A., Offerhaus, G.A. and Giardiello, F.M. 2015. Hereditary Colorectal Cancer: Genetics and Screening. *The Surgical Clinics of North America*, 95(5):1067-1080.

Collins, C.E., Young, A.F., and Hodge, A. 2008. Diet quality is associated with higher nutrient intake and self-rated health in mid-aged women. *Journal of the American College of Nutrition,* 27(1):146-157.

Craig, C.L., Marshall, A.L., Sjostrom, M., Bauman, A.E., Booth, M.L., Ainsworth, B.E., Pratt, M., Ekelund, U., Yngve, A., Sallis, J.F. and Oja, P. 2003. International physical activity questionnaire: 12-country reliability and validity. *Medicine & Science in Sports & Exercise,* 35(8):1381-1395.

Gu, F., Han, J., Laden, F., Pan, A., Caporaso, N.E., Stampfer, M.J., Kawachi, I., Rexrode, K.M., Willett, W.C., Hankinson, S.E., Speizer, F.E. and Schernhammer, E.S. 2015. Total and Cause-Specific Mortality of U.S. Nurses Working Rotating Night Shifts. *American Journal of Preventive Medicine,* 48(3):241-252.

Hill, S.M., Belancio, V.P., Dauchy, R.T., Xiang, S., Brimer, S., Mao, L., Hauch, A., Lundberg P.W., Summers W., Yuan, L., Frasch, T. and Blask, D.E. 2015. Melatonin: an inhibitor of breast cancer. *Endocrine-related Cancer,* 22(3):R183-R204.

Holland, P., Allen, B.C. and Cooper, B.K. 2012. What Nurses Want: Analysis of the First National Survey on Nurses' Attitudes to Work and Work Conditions in Australia. http://anmf.org.au/documents/reports/What_Nurses_Want_Report.pdf (accessed 10.08.15).

Honma, N., Hosoi, T., Arai, T. and Takubo, K. 2015. Estrogen and cancers of the colorectum, breast, and lung in postmenopausal women. *Pathology International,* 65(9):451-459.

Huntington, A., Gilmour, J., Schluter, P., Tuckett, A., Bogossian, F. and Turner, C. 2009. The Internet as a research site: establishment of a web-based longitudinal study of the nursing and midwifery workforce in three countries. *Journal of Advanced Nursing,* 65(6):1309-1317.

International Agency for Research on Cancer (IARC). 2007. Painting, Firefighting, and Shiftwork. http://monographs.iarc.fr/ENG/Monographs/vol98/mono98.pdf (accessed 15.08.15).

International Labour Office. 2004. Shift work. http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/publication/wcms_170713.pdf (accessed 10.08.15).

Jasperson, K.W., Tuohy, T.M., Neklason, D.W. and Burt, R.W. 2010. Hereditary and familial colon cancer. *Gastroenterology,* 138(6):2044-2058.

Jess, T., Simonsen, J., Jørgensen, K.T., Pedersen, B.V., Nielsen, N.M. and Frisch, M. (2012). Decreasing risk of colorectal cancer in patients with inflammatory bowel disease over 30 years. *Gastroenterology*, *143*(2):375–381.

Jetté, M., Sidney, K., and Blümchen, G. 1990. Metabolic equivalents (METS) in exercise testing, exercise prescription, and evaluation of functional capacity. *Clinical Cardiology*, 13(8):555-565.

Johnson, C.M., Wei, C., Ensor, J.E., Smolenski, D.J., Amos, C.I., Levin, B. and Berry, D.A. 2013. Meta-analyses of colorectal cancer risk factors*. Cancer Causes & Control*, 24(6):1207-1222.

Kelleher, F.C., Rao, A., and Maguire, A. 2014. Circadian molecular clocks and cancer. *Cancer Letters,* 342(1):9-18.

Luo, S., Li, J., Zhao, L., Yu, T., Zhong, W., Xia, Z., Shan, T, Ouyang, H., Yang, H, and Chen, Q. 2015. Diabetes mellitus increases the risk of colorectal neoplasia: An updated meta-analysis. *Clinics and Research in Hepatology and Gastroenterology,* 07.07.15 (in press).

Lutgens, M.D., van Oijen, M.H., van der Heijden, G.G., Vleggaar, F.P., Siersema, P.D. and Oldenburg, B. 2013. Declining risk of colorectal cancer in inflammatory bowel disease: an updated meta-analysis of population-based cohort studies. *Inflammatory Bowel Diseases,* 19(4):789-799.

Masri, S., Kinouchi, K. and Sassone-Corsi, P. 2015. Circadian clocks, epigenetics, and cancer. *Current opinion in oncology,* 27(1):50-56.

Matheson, A., O'Brien, L. and Reid, J.A. 2014. The impact of shiftwork on health: a literature review. *Journal of Clinical Nursing*, 23(23-24):3309–3320.

Nemes, S., Jonasson, J., Genell, A. and Steineck, G. 2009. Bias in odds ratios by logistic regression modelling and sample size. *BMC Medical Research Methodology*, 9(1):56.

Schernhammer, E.S., Laden, F., Speizer, F.E., Willett, W.C., Hunter, D.J., Kawachi, I., Fuchs, C.S. and Colditz, G.A. 2003. Night-shift work and risk of colorectal cancer in the Nurses' Health Study. *Journal of the National Cancer Institute,* 95(11):825-828.

Schluter, P.J., Turner, C., Huntington, A.D., Bain, C.J. and McClure, R.J. 2011. Work/life balance and health: the Nurses and Midwives e☐cohort study. *International Nursing Review,* 58(1):28-36.

Selinger, C.P., Andrews, J.M., Titman, A., Norton, I., Jones, D.B., McDonald, C, Barr, G., Selby, W. and Leong R.W. 2014. Long-term follow-up reveals low incidence of colorectal cancer, but frequent need for resection, among Australian patients with inflammatory bowel disease. *Clinical Gastroenterology and Hepatology,* 12(4):644-650.

Sharma, A., Ng, H., Kumar, A., Teli, K., Randhawa, J., Record, J. and Maroules, M. 2014. Colorectal cancer: Histopathologic differences in tumor characteristics between patients with and without diabetes. *Clinical Colorectal Cancer*, 13(1):54-61.

Stevens, R.G. and Zhu, Y. 2015. Electric light, particularly at night, disrupts human circadian rhythmicity: is that a problem? *Philosophical*

Transactions of the Royal Society B-Biological Sciences, 370(1667):9.

Thompson, C.L., Larkin, E.K., Patel S., Berger, N.A., Redline, S. and Li, L. 2011. Short Duration of Sleep Increases Risk of Colorectal Adenoma, *Cancer,* 117(4):841-847.

Wang, X., Ji, A., Zhu, Y., Liang, Z., Wu, J., Li, S., Meng, S., Zheng, X. and Xie, L. 2015. A meta-analysis including dose-response relationship between night shift work and the risk of colorectal cancer. *Oncotarget*, 6(28):25046-25060.

Willett, W.C., Sampson, L., Stampfer, M.J., Rosner, B., Bain, C., Witschi, J., Hennekens, C.H. and Speizer, F. E. 1985. Reproducibility and validity of a semiquantitative food frequency questionnaire. *American Journal of Epidemiology,* 122(1):51-65.

Zhao, H., Yin, J.Y., Yang, W.S., Qin, Q., Li, T.T., Shi, Y., Deng, Q., Wei, S., Liu, L., Wang, X. and Nie, S.F. 2013. Sleep duration and cancer risk: a systematic review and meta-analysis of prospective studies. *Asian Pacific Journal of Cancer Prevention,* 14(12):7509-7515.

Elements to promote a successful relationship between stakeholders interested in mental health promotion in schools

AUTHORS

Christine Handley
RN, RPN, MEd, FACMHN, FACN
Senior Lecturer, School of Health Sciences, University of Tasmania and Assistant Director of Nursing, Child and Adolescent Mental Health Services, Tasmanian Health System, 20 Clare Street, New Town, Tasmania, Australia
christine.handley@ths.tas.gov.au

Professor Margaret McAllister
RN, Ed D, CMHN, FACMHN, FACN
Professor of Nursing, School of Nursing and Midwifery, CQU University, Noosa campus, 90 Goodchap Street, Noosaville, Queensland, Australia
m.mcallister@cqu.edu.au

KEY WORDS

Community engagement, collaboration, mental health, health promotion, resilience

ABSTRACT

Objective
An evaluation of a mental health promotion program called iCARE which depended on collaboration between multiple partners.

Design
A qualitative exploratory evaluation that involved purposeful sampling of a range of stakeholders in the School settings.

Setting
Two Secondary Schools in Tasmania.

Intervention
iCARE stands for Creating Awareness, Resilience and Enhanced Mental Health and is a structured six-week program in which trained facilitators engage Year 8 students in learning about mental health and developing resilience. The collaboration involved university researchers, child and youth mental health clinicians, and education staff. It required investment in time and resources as well as intellectual effort and good will from each of the key players.

Results
Successful elements of collaboration were distilled from the interview data, indicating that for a mental health promotion program to succeed in schools, highly tuned negotiation and communication skills are required.

Conclusion
Nurses are increasingly working within the community to promote the health and wellbeing of many groups. To work effectively with young people in schools, and to share the impact of that work with the professional community, requires collaboration between health, education and university stakeholders. This evaluation found that success in this interdisciplinary connection requires respect, communication, negotiation and appreciation for disciplinary differences.

INTRODUCTION

Mental health is the leading health issue facing young people world-wide and it is a whole of community concern, an issue that crosses and even transcends disciplines and professions (Robinson et al 2016). The last two decades has seen a call to increase collaboration with a broad network of stakeholders involved in youth mental health including parents, schools and health services (Hoagwood et al 2010). Schools can only do so much to support health and wellbeing on their own, as their core business is education, and recent reports identify significant school-based workforce shortages as impacting on the ability to intervene early in youth mental health (Carbone et al 2011).

A mental health promotion program designed for delivery by health professionals within the Australian school context has been developed to respond to these concerns. 'iCARE' is a universal mental health promotion program that takes a solutions focus (McAllister 2013) and aims to build resilience strategies (Morrison and Allen 2007) in all young people. Its generation, development and feasibility is described at length elsewhere (McAllister et al 2008). Whilst there are other Australian mental health programs that take a whole of classroom approach (such as Mind Matters), some of the unique features of iCARE are that it:

- involves trained facilitators who run the groups in the class, rather than the classroom teachers;
- is a structured brief program consisting of six modules that trigger group discussion to enable young people to explore and develop the strengths and achievements of other young people, and themselves, so the repertoire of strategies will give them strength in challenging times that may be ahead in this turbulent life stage can be expanded; and
- it draws on material that are likely to be appealing but also challenging for young people – such as real-life stories, film clips, contemporary music, poetry, and discussion-based games.

Each of these resources is used in such a way that they reveal strengths and resources of someone else, but which can be discussed, developed, revised and perhaps taken up and used by participants in their future lives. In this way, iCARE is future-focused, strengths building and proactively develops mental health capabilities useful in life.

A central assumption of iCARE, which comes from the solutions focus, is that strengths and vulnerabilities are both likely to occur in all young people as they face the changes of adolescence (McAllister 2013). These strengths and vulnerabilities can be engagingly discussed by using narratives found in books and films, rather than in peoples' personal lives. This strategy is designed to create a safe environment - the group an opportunity to be analytical about what could work or not work in young peoples' lives, without slipping into personal difficulties, and issues that could be upsetting (Tsevat et al 2015). The idea, based in the solutions orientation, is that positive aspects are foregrounded, and deficiencies or challenges are discussed but not indulged (Sharry 2007).

Another key distinguishing component in the approach is that while the mental health clinicians trained in the solutions focus implement the program for an hour each week over six weeks with 13-14 year old students, they do so in a way that co-opts the support and involvement of teaching staff. In this way, solution focused communication approaches can be modelled by the facilitator, developed by teachers and shared. To relate effectively facilitators and teachers need to appreciate their distinct skills and that both sets of expertise will be needed to help this program work effectively within a large classroom. Further, having trained mental health professionals facilitate the program ensures the availability of support and referral should it be required if sensitive topics are raised by students, and assures the school that safety will be maintained and risks minimised.

Participating teachers bring a formal authority to the classroom, knowledge of behaviour management, and a personal knowledge of the strengths and limitations of individual students. iCARE facilitators and teachers work together to manage the tension between the strength based model of iCARE and the at times formal authoritative style of engagement embedded in school culture (Pounder 1998).

Hoagwood et al (2010, p16) have stated there is "still relatively little guidance available to researchers interested in increasing the level of collaboration within their research studies." Consequently, we aimed to examine the components of early collaboration that have proven to be facilitators and barriers to the development of iCARE and efforts to evaluate its efficacy in order to contribute to research methods that strengthen and promote interdisciplinary collaboration.

LITERATURE REVIEW

Collaboration is a term that is often used interchangeably with team work (Garrett 2005). It is a practice that can tend to be over-simplified and taken-for-granted. Whilst collaboration could simply be viewed as a mutually beneficial relationship (Mattessich et al 2001) others see collaboration as more dynamic, a journey without a clear destination where methods and styles evolve, based on cumulative and unfolding discoveries (Hoagwood et al 2010; Haythornthwaite 2006; Denis and Lomas 2003). Establishment of shared goals is seen to be important, and Kagan (1991) and others (Denis and Lomas 2003; Wood and Gray 1991) emphasise the centrality of sharing of power, resources and authority.

The benefits of collaborations are well documented. These include the facilitation of knowledge transfer, enhanced creativity, and access to broader networks (Carey et al 2009; Wiggins 2008; Loan-Clarke and Preston 2000). However, collaboration within and between institutions is difficult and challenging (Carey et al 2009; Wiggins 2008). Fullan (1993) also speaks of collaboration as hard work and operating in the world of ideas where existing practices are examined critically and where better alternatives are sought. Robinson (2005) addresses in detail a number of challenges related to what he refers to as the Five P's – people; professional cultures; policies; politics and practicalities. Carey et al (2009) speaks of collaboration being hindered by institutional politics, echoing Robinson (2005) and further identifies historical relations, perception of competition and other tensions including finance, resources and maintaining momentum as potential hindrances.

The Need for Collaborative Research in Youth Mental Health

Alberto and Herth (2009) describe a collaborative imperative within health care and that the art of collaborating is generally seen as a central component of successful professional activity. In relation to collaboration with schools, as far back as the mid 1990's it was recognised that strong partnerships were critical to ensuring that effective prevention and early intervention strategies were well received and to ensuring their ongoing sustainability (Galbraith et al 1996). This recognition is strongly reflected in major collaborative school-based research reports including KidsMatter (Slee et al 2009), CASEL (Payton et al 2008), PATHS (Kusche and Greenberg 1994; Greenberg and Kusche;1998, 1997, 1993) and SEAL (Humphrey et al 2010) that have as their focus the social and emotional well-being of students.

However, Mastro and Jalloh (2005) refer to a perception of resistance between schools and the communities within which they exist, going so far as to say that *"schools alone cannot meet all needs – social emotional, physical and academic, yet they stand as gatekeepers for access to youth…"* (p1). Despite this perception, there is also growing evidence that successful collaboration between school and community groups has resulted in improved academic and social/emotional outcomes for youth (Slee et al 2009; Mastro and Jalloh 2005).

Why programs for adolescents benefit from a collaborative approach

The mental health and wellbeing of young people is at the forefront of mental health policy in Australia and evidence is growing for the value of collaborative and integrated service systems to address the needs of young people, especially those aged 12 to 25 years (Rickwood et al 2011). Adolescence is a challenging life transition characterised by physical, psychological and social change that can impact on health and well-being. Mental health is fundamental to good health and to life enjoyment and a resource for life (Sturgeon 2007).

During this time, young people need to be introduced to the concept of positive mental health – so they appreciate that paying attention to existing and potential strengths can be an asset to them in taking on challenges optimistically and enthusiastically (Barry 2013). This is a much larger vision than simply illness prevention, though this is important.

In adopting a population-based mental health promotion approach, every young person and not just at-risk youth, become the focus for enhancing strengths and social competencies. Programs which target young people and provide a solid foundation of resilience offer the best hope of improving their mental health (Weare and Nind 2011). In line with this, there is now a worldwide movement to take a solution-focused, rather than problem-focused, approach to enacting changes in individuals and groups; an approach that has produced exceptional results in many disciplines (McAllister et al 2008; Mahlberg and Sjoblom 2005).

In an initial feasibility study, interviews with twelve school nurses determined both the need for the iCARE program and support among mental health staff for its implementation (McAllister et al 2010). Pilot data also suggest positive outcomes for youth who complete the program, including improved knowledge regarding self-harm, improved problem solving skills and a general enjoyment of the solution-focused approach inherent in the program (McAllister et al 2010). However, barriers to implementation, including securing support of school leaders, were also of concern to those likely to adopt the program (McAllister et al 2010). De Leo and Heller (2004) reported a reluctance to allow *any* material related to suicidal behaviours to be given to students. Yet as Barry (2013) states, the most appropriate location for these mental health promotion programs to take place is in the contexts and settings where young people live their lives. To overcome this key barrier requires trust from school staff that health professionals will be careful, safe and productive. This is only achieved with ongoing collaboration that fosters familiarity, trust and mutual respect (Weare and Nind 2011).

Collaboration in action: the iCARE program

In Tasmania, Australia, early collaborative processes involved re-partnership in 2011, with a large all girls public school. The iCARE program was delivered across six weeks to a Year 9 class (23 students) with the purpose of examining the program's relevance and validity in a whole of classroom setting. The school had previously been involved in 2010, in a small (eight students) group pilot research project involving iCARE and thus the beginnings of a foundation for a trusting relationship existed. Qualitative evaluative data was obtained from the students both pre- and post the 2011 program and the school Principal and iCARE teacher were interviewed at program completion. In 2014, a further pilot across two Year 9 classes (22-25 students) was implemented at the same all girls school and across two Year 9 classes at a private coeducational high school, a total of 90 students. Qualitative evaluative data was again obtained from the students both pre- and post the pilot program and the four iCARE teachers were interviewed at program completion.

Remaining open and inviting of all perspectives, whilst ensuring that clear leadership exists to maintain integrity of purpose, has enabled the current effort to realise what Pounder (1998) suggests is a strong foundation for effective collaboration. Shared reflections from stakeholders illuminates aspects about this collaborative experience.

THE STUDY

A qualitative exploratory study was designed to answer the following research question: *How did key school stakeholders perceive the process of being involved in the iCARE Research Project?* Ethical clearance for all project pilots was obtained by the Tasmanian Human Research Ethics Committee and Education Department as well as the relevant University ethics committees.

METHOD

In 2011 and 2014 two researchers interviewed the school principal and a teacher involved in delivering iCARE to elicit views on how the program was perceived by school leaders. They used an inductive approach to questions, but beginning broadly and then following up with focused questions (Braun and Clarke 2006). The principal and teacher were asked to comment on why the school supported the introduction of iCARE, to provide suggestions for improvement and what more could be done to facilitate student well-being. The teacher was also asked to provide observations on iCARE, including observed changes and engagement among students and relevance of the program.

Researchers took field notes through the course of the interviews, which lasted approximately one hour for each interviewee. This attempt to co-construct knowledge fits with the participatory paradigm (Hoagwood et al 2010).

Data analysis

Data from the 2011 and 2014 interviews were subjected to realist thematic analysis following the guidelines of Braun and Clarke (2006). That is, the analysis focused on experiences, meanings and the reality of participants. Initial themes were developed from the interview notes, and notes re-read to verify, merge or re-code the identified themes. The six phases of analysis described by Braun and Clarke (2006) were used to identify themes from the interview data – familiarising yourself with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; and producing findings.

FINDINGS

Three broad themes were identified from the interviews: 1) meeting school priorities, 2) balancing need and resources, and 3) the importance of involving school staff. The following is an account of each theme combined with a brief engagement with the literature, post analysis.

Meeting school priorities

Both the school principals and the teachers commented that iCARE fit well within the school curriculum, and the strategic priorities of both the school and the broader education sector. They viewed social and emotional learning as being part of the development of young people, and argued it should be inherent in the school curriculum. These responses are encouraging given that when school administrators view schools as part of, and not separate from a larger community, the successful partnerships are likely to follow (Mastro and Jalloh 2005).

> *Projects like iCARE line up with our business of educating girls. Becoming involved in iCARE fits with my social consciousness, with the social consciousness of the school and the school curriculum does not really deal with emotional/social issues in an in-depth manner. (Mary, Principal, 2011)*
>
> *Programs such as iCARE would be essential in providing schools with the necessary skills to become more strengths based especially in a whole-of-school approach. (Peter, Teacher, 2011)*

In these ways, stakeholders indicated confidence in the iCARE program. Collaboration as a construct is multifaceted and a very context-bound concept (Hoagwood et al 2010). It was vital in the early stages of the partnership with the School to align the iCARE Program with the school curriculum. In early meetings with the Principal and Health and Wellbeing coordinator the strength-based and solution focused approaches as a key feature of iCARE were emphasised. The early meetings with the program facilitators, one of whom was also lead iCARE researcher in Tasmania, were also characterised by a desire to move the conversations from being problem driven to being vision driven (National Network for Collaboration in Alberto and Herth 2009).

Early collaborative efforts with school staff were occurring within a context of existing embedded practices and it is important to acknowledge right from the start the negotiation of and co-evolution of practices. Haythornthwaite (2006) identifies one of the challenges to interdisciplinary collaborative work, in this instance, between mental health professionals and high school teachers, as “bridging practices”. It was beneficial to be clear about how iCARE would align itself with the existing school culture which has been described as the atmosphere or climate of the school but is also about a set of norms and values which provide a focus for everyone about what is important (Jerald 2006). The schools already valued the importance of empowering the young girls in the school and developing resilience and coping.

iCARE, like other programs could have influence or be obstructed by the hidden curriculum. The hidden curriculum, that which teaches but remains implicit within the school culture, is shaped by social forces to satisfy hidden agendas including serving the needs of society (Wren 1999). Youth mental health and a concern of schools about youth self- injury and suicide is, one could assert a major driving force for including or excluding learning experiences that address such issues (Green 2007). In promoting the iCARE Program it was necessary to acknowledge this context and be prepared to discuss how this aspect of the program would be supported.

Balancing need and resources

The principals and teachers of both schools were clear that there was a need for a program such as iCARE and expressed the view that geerally there is a lack of resources to effectively incorporate social and emotional learning programs into schools.

> *There is a huge need for inquiry-based approaches and iCARE and programs like it would help to meet that need. (Mary, Principal, 2011)*
>
> *Our expertise is around the pedagogy of teaching… so the content [emotional/psychological strategies], go to the experts. (James, Acting Principal, 2014)*
>
> *There is a need for a mental health infrastructure in schools. Where programs such as iCARE raise awareness around stress, coping etc there is a parallel need for support. Schools are under-resourced as far as emotional/psychological supports. (Mary, Principal, 2011)*

In line with this, the involvement of trained mental health professionals to deliver the program was viewed not only as a way to minimise burden on schools, but as indicative of a true collaboration between schools and mental health professionals.

> *The professional learning program needs to develop between the school and mental health professionals and other key stakeholders…[there is a] crucial necessity of collaborative partnerships between mental health professionals and teachers. (Mary, Principal, 2011)*
>
> *I’d probably re think about maybe getting more involved in some of the presenting itself…how that could then be where it’s a combined, collaborative thing. And I’m not just the supervising teacher… but because it is so – like, it’s quite confronting, some of the [iCARE] issues, it definitely I think needs to be a collaboration. (James, Acting Principal, 2014)*

Prior to iCARE commencing in the classroom, the facilitators initiated conversations about perceived and real needs and resources with the Principal and Health and Wellbeing coordinators. This required sensitive negotiation and goal clarification. The development of shared goals that are acceptable to both researchers and key stakeholders is necessary for productive collaborative effort and further, requires a melding of perspectives and priorities (Hoagwood et al 2010). The iCARE facilitators as researchers needed to work together with the school staff to implement a program that would deliver desired school curriculum outcomes, work with existing school resources and keep students safe and contained in the process.

Several features of schools identified by Pounder (1998) needed to be considered in organising for collaborative negotiation and the fit of iCARE. For example, schools are often characterised by stimulus-overload. In the day-to-day life of schools, teachers and principals are subject to numerous short multiple interactions with many individuals. Time is scarce. iCARE facilitators needed to demonstrate an appreciation of and respect for the tight schedules for both teachers and students. Teachers from both schools spoke on the difficulty with fitting the program into the curriculum and the possibility of having a shorter or more integrated program.

> *…for our school to invest in a six, eight-week program is a huge investment out of their time. (James, Acting principal, 2014)*
>
> *So while we couldn't run a six week block again because of other elements that are involved in the curriculum, we could look at …some elements of the iCARE program that we could perhaps integrate into our teaching …. (Henry, Teacher, 2014)*

Interprofessional negotiations were characterised by mutual respect and with the intent to share knowledge, power and decision-making. Power can be shared in unique ways (Hoagwood et al 2010). The resources and needs that were the focus of discussions and described by some as challenges to successful collaboration (Mastro and Jalloh 2005) were space, time, scheduling, staffing roles, school rituals and more tangible resources such as art and craft materials required by the iCARE Program. Issues such as partnership capability, limits, expectations in relation to needs and resources often require ongoing discussion and exploration to develop and maintain collaborative partnerships (Burley 2003).

Involving school staff

The involvement of school staff in the delivery of iCARE was seen as a strength of the program. Not only did this provide an opportunity for up-skilling school staff, but involving staff familiar with school routines, and with individual students, allowed for a more structured environment in which to deliver iCARE. The authority provided by the teacher ensured the facilitators were respected and able to deliver the program with minimal disruption.

Through the interviews it became evident that the success of school-based programs depends on good communication with school leaders. The first contact with the school was with the school Principal. Chapman et al (2005, p9-10) notes that *'…the attitudes and skills of head teachers are clearly crucial, particularly in terms of both promoting and resourcing collaboration [which] …has to be led, facilitated and supported over time ."* The leadership provided by the Principal and the teacher coordinator of health and well-being was crucial to the initial collaborative success of the iCARE project in Tasmania.

> *[It is] essential to have the Principal and Vice Principal involved. They must be cognizant of the knowledge and skills that teachers are exposed to and this must be seen to be valued by the school culture as a whole. (Mary, Principal, 2011)*

A teacher noted that his involvement with iCARE really helped him to better understand the whole notion of being strength-based.

> *At the beginning of the program I had a lot to sort out in my head regarding this. But iCARE opened up the scope of what I thought- skeleton keys; coping strategies. You can actually give kids the tools, not just stock answers! (Peter, Teacher, 2011)*

Teachers and facilitators believed there was benefit in clarifying the roles of each other at the earliest opportunity because it can prevent problems occurring later.

The following quote is illustrative of a teacher reflecting on his role in the classroom-based iCARE program.

> *A couple of times I got frustrated with the students cause I didn't think they were …doing as they should all the time, so sometimes I was unsure if I should go in and say something and really do my teacher bit, which is what I'd normally do if I was by myself, but then I didn't want to tread on your toes also. (James, Teacher, 2014)*

The process of working with a school teacher in the classroom was not without its challenges. The distinctiveness that each discipline brings to the collaboration is reported as the single most commonly identified barrier to effective multidisciplinary work (Robinson 2005). The different professional cultures of for example, teaching and health care work, can bring unique approaches to language and time-management, overall orientation and expectations and standards (Robinson 2005). Table 1 provides a summary of the key enabling factors for good collaboration that are addressed in the three overarching themes previously described.

Table 1: Key facilitating factors of good school-based collaboration and program success

1.	An understanding by program facilitators of the unique needs and processes of the school, especially an appreciation of school scheduling
2.	Early confident, informed communication with leaders, especially the School Principal(s)
3.	Support for a program that was perceived to have a good curriculum fit, especially with the health and well-being aspect of the curriculum
4.	Program facilitators acknowledging and respecting the expertise of the teachers
5.	Teachers valuing the iCARE facilitator's skills in tackling and reframing confronting topics such as self-harm
6.	Power sharing and team work between teachers and iCARE facilitators who draw on their different yet complimentary roles and skills in delivering the program to achieve youth mental health promotion
7.	Early clarification of teacher and facilitator roles to prevent problems arising from any aspect of program delivery

Other authors have commented similarly on the key importance of these themes (Humphrey et al 2010; Slee et al 2009; Durlak and Dupre 2008; Greenberg et al 2005). In particular, program sustainability is dependant on the school's commitment to the program, and the key teachers' energy to drive the program forward.

Early Engagement with School: Trust and Respect

In addition to these identified themes from school staff interviews and subsequent analysis, the iCARE facilitators became increasingly conscious of the centrality of trust and respect in the early engagement with the school and indeed in maintaining and sustaining that trust and respect over the years. Our team has maintained contact with people within the schools and this has maintained trust and also openness to future research.

These recommendations for establishing trust and respect in the early stages of collaborative engagement with Principal and lead teachers have been discerned from this evaluation and are strongly supported by the literature (Hoagwood et al 2010; Carey et al 2009; Wiggins 2008; Robinson 2005; Denis and Lomas 2003).

CONCLUSION

Research and systematic improvements in a multidisciplinary issue such as mental health promotion requires collaboration. For it to be effective, collaboration requires ongoing commitment to the process. This paper has explained the successful processes we identified in a collaborative research project involving teachers, child and youth mental health practitioners and academic researchers. Elaborating on the active elements may be useful in working out how to sustain engagement and enhance the sustainability of the working relationship between these three groups. Because these three groups have varied skill sets, training, and perspectives on youth learning and wellbeing, ongoing collaboration may also herald the development of new models to approach challenges and implement programs for youth mental health.

Sustainable collaboration depends on the establishment of ongoing, meaningful partnerships. How these partnerships are commenced is crucial. Further, collaborative research once begun, needs to be nurtured, sustained, and evaluated over time. Not only are collaborative research efforts labour intensive for all stakeholders but they require a level of communication and sharing of power and the development of relevant and effective youth based services.

REFERENCES

Alberto, J. and Herth, K. 2009. Interprofessional Collaboration within faculty roles: Teaching, Service, and Research. OJIN, *The Online Journal of Issues in Nursing,* 14(2):1-4.

Barry, M. 2013. *Promoting positive mental health and wellbeing: Practice and Policy.* 355-384.

Braun, V. and Clarke, V. 2006. Using thematic analysis in psychology. *Qualitative Reserach in Psychology,* 3(2):77-101.

Burley, J. 2003. Shared Care –Initiating and Developing a Shared Care Relationship. *CPA Bulletin*, April.

Carbone, S., Rickwood, D. and Tanti, C. 2011. Workforce Shortanges and their impact on Australian Youth Mental Health Services Reform, *Advances in Mental Health*, 10:92-97.

Carey, C., Smith, K. and Martin, L.M. 2009. Cross-University enterprise education collaboration as a community of practice, *Education + Training*, 51(8/9):696-706.

Chapman, C., Allen, T. and Harris, A. 2005. *Networked Learning Communities and Schools Facing Challenging Circumstances.* Nottingham: National College for School Leadership.

De Leo, D. and Heller, T.S. 2004. Who are the kids who self-harm? An Australian self-report school survey. *Medical Journal of Australia*, 181:140-144.

Denis, J-L. and Lomas, J. 2003. Convergent evolution: the academic and policy roots of collaborative research. *Journal of Health Services Research and Policy*, 8(2):1-6.

Durlak, J.A. and DuPre, E.P. 2008. Implementation Matters: A review of the research on the influence of implementation on program outcomes and the factors affecting implementation, *American Journal of Community Psychology*, 41:327-350.

Fullan, M.G. 1993. Why teachers must become change agents. *Educational Leadership*, 50(6):1-12.

Galbraith, J., Ricardo, I., Stanton, B., Black, M., Feigelman, S. and Kalijee, L. 1996. Challenges and rewards of involving community in research: An overview of the "focus on kids" HIV risk reduction program. *Health Education and Behavior Quarterly,* 23(3):383-394.

Garrett, L. 2005. Interdisciplinary Practice, Education and Research. *American Association of Occupational Health Nurses Journal*, 53(4):159-165.

Green, J.H. 2007. Fetal Alcohol Spectrum Disorders: Understanding the Effects of Prenatal Alcohol Exposure and Supporting Students, *Journal of School Health*, 77(3):103-108.

Greenberg, M., Domotrovich, C.E., Graczyk, P.A. and Zins, J.E. 2005. The study of implementation in school-based preventive interventions: theory, research and practice, SAMHSA: Rockville, MD.

Greenberg, M.T. and Kusche, C.A. 1993. Promoting social and emotional development in deaf children: The PATHS Project. University of Washington Press: Seattle.

Greenberg, M. T. 1997. Promoting social and emotional competence: The PATHS Curriculum and the CASEL Network. Reaching Today's Youth, 49–52.

Greenberg, M.T. and Kusche, C. A. 1998. Preventive intervention for school-aged deaf children: The PATHS Curriculum. Journal of Deaf Studies and Deaf Education, 3:49–63.

Haythornthwaite, C. 2006. Learning and knowledge networks in interdisciplinary collaborations, Journal of the American Society for Information Science and Technology, 57(8):1079-1092.

Hoagwood, K.E., Jensen, P.S., McKay, M. and Olin, S. (Editors), 2010. Children's Mental Health Research: The Power of Partnerships, Oxford University Press: Oxford.

Humphrey, N., Lendrum, A. and Wigeelsworth, M. 2010. Research Report: Social and Emotional Aaspects of Learning (SEAL), Programme in secondary schools: National Evaluation. Department for Education: London.

Jerald, C.D. 2006. School Culture: The Hidden Curriculum. Issues Brief: The Center for Comprehensive School Reform and Improvement, December, 1-8.

Kagan, S.I. 1991. United we stand: Collaboration for childcare and early education services, Teachers College Press: New York.

Kusche, C.A. and Greenberg, M.T. 1994. The PATHS curriculum. Developmental Research and Programs: Seattle.

Loan-Clarke, J. and Preston, D. 2000. Tensions and benefits in collaborative research, involving a University and another organization. Studies in Higher Education, 27(2):169-185.

McAllister, M. 2013. Solution focused nursing. Chapter 17 in Stickley, T. and Wright, N. Theories for mental health nursing. Sage: London.

McAllister, M., Hasking, P., Estefan, A., McClenaghan, K. and Lowe, J. 2010. A strengths-based group program on self-harm: A feasibility study. Journal of School Nursing, 26:289-300.

McAllister, M., & Lowe, J. 2010. *iCARE: A strengths-based group program on self-harm.* University of the Sunshine Coast, Maroochydore.

McAllister, M., Zimmer-Gembeck, M. Moyle, W. and Billett, S. 2008. Working effectively with clients who self-injure using a solution focused approach. *Journal of International Emergency Nursing,* 16:272-279.

Mahlberg, K. and Sjoblom, K. 2005. *Solution focused education.* London: Solutions Books.

Mastro, E. and Jalloh, M.G. 2005. Enhancing service through effective school/community collaboration. Advocates for Youth, Washington, DC, June.

Mattessich, P., Murray-Close, M. and Monsey, B. 2001. *Collaboration: What makes it work.* Saint Paul: Minnesota Fieldstone Alliance.

Morrison, G. and Allen, M. 2007. Promoting student resilience in school contexts. *Theory Into Practice,* 46(2):162–169.

Payton, J.W., Weissberg, R.P., Durlak, J.A., Dymnicki, A.B., Taylor, R.D., Schellinger, K.B. and Pachan, M. 2008. Positive impact of social and emotional learning for kindergarten to eighth-grade students, Findings from three scientific reviews. Collaborative for Academic Social and Emotional Learning: Chicago.

Pounder, D.G. 1998. *Restructuring Schools for Collaboration: Promises and Pitfalls*, State University of New York Press: Albany.

Rickwood, D., Raphael, B. and Pilgrim, D. 2011. Promoting youth mental health through early intervention. *Advances in Mental Health,* 10(1):3-5.

Robinson, J., McCutcheon, L., Browne, V. and Witt, K. 2016. *Looking the other way: Young people and self-harm.* Orygen, The National Centre of Excellence in Youth Mental Health, Melbourne.

Robinson, L.M. 2005. Promoting Multidisciplinary relationships: A Pragmatic Framework for Helping Service Providers to Work Collaboratively. *Canadian Journal of Community Mental Health*, 24(2):115-127.

Sharry, J. 2007. *Solution focused group work*. London: Sage.

Rickwood, D., Raphael, B. and Pilgrim, D. 2011. Promoting Youth Mental Health through Early Intervention (Editorial). *Advances in Mental Health*, 10(1):3-5.

Slee, P.T., Lawson, M.J., Russell, A., Askell-Williams, H., Dix, K.L., Skrzypiec, G. and Spears, B. 2009. KidsMatter Primary Evaluation Final Report. Flinders University of South Australia: Adelaide.

Sturgeon, S. 2007. Promoting mental health as an essential aspect of health promotion. *Health promotion international, 21:36-41.*

Tsevat, R., Anoushka, A., Guitierrez, K., and DasGupta, S. 2015. Bringing home the health humanities: Narrative humility, structural competency and engaged pedagogy. *Academic Medicine*, 90:1462-1465.

Weare, K., and Nind, M. 2011. Mental health promotion and problem prevention in schools: What does the evidence say? *Health Promotion International,* 26:i29-i69.

Wiggins, M. 2008. The Partnership Care Delivery Model: an examination of the care concept and the need for a new model of care. *Journal of Nursing Management*, 16:629-638.

Wood, D. and Gray, B. 1991. Towards a comprehensive theory of collaboration. *Journal of Applied Behavioral Science*, 27(2):139-167.

Wren, D. 1999. School Culture: Exploring the Hidden Curriculum. *Adolescence,* 34(135):593-596.

Accessibility and outcomes from a rural diabetes nurse-educator led self-management program

AUTHORS

Diane Patricia Roberts
RN, BN, Grad Dip Adv Nursing, Grad Cert Health-Self Management, Dip Business, Chronic and Complex Condition Program Coordinator
Research Capacity Building Program participant
Centre of Research Excellence (CRE) in Rural and Remote Primary Health Care, Monash Rural Health, Monash University, PO Box 666 Bendigo, Victoria, Australia
diane.p.roberts@monash.edu

Bernadette Maree Ward
RN, MPH, MHSc, PhD, Senior Research Fellow
Centre of Research Excellence (CRE) in Rural and Remote Primary Health Care, Monash Rural Health, Monash University, PO Box 666 Bendigo, Victoria, Australia
bernadette.ward@monash.edu

Deborah Jane Russell
MBBS, FRACGP, MClinEpid, PhD, Research Fellow
Centre of Research Excellence (CRE) in Rural and Remote Primary Health Care, Monash Rural Health, Monash University, PO Box 666 Bendigo, Victoria, Australia
deborah.russell@monash.edu

Belinda Gabrielle O'Sullivan
BPhysio (Hons), MPH (Hons), Grad Dip App Epi, PhD candidate, Research Fellow
Monash Rural Health, Monash University, PO Box 666, Bendigo, Victoria, Australia
belinda.osullivan@monash.edu

Funding declaration: *The research reported in this paper was a project of the Australian Primary Health Care Research Institute which was supported by a grant from the Australian Government Department of Health and Ageing.*

Conflicts of Interest: *The authors have no competing interests or conflicts of interest to declare.*

KEY WORDS

access, diabetes nurse educator, diabetes self-management, health outcomes, rural, primary health care

ABSTRACT

Objective

To investigate factors associated with access to, and health outcomes of, a diabetes nurse-educator led self-management program for rural Australians with diabetes.

Design

Retrospective cohort study

Setting

A rural community-health service with a dispersed catchment of 10,000 population.

Subjects

Clients diagnosed with type 2 diabetes mellitus and referred to the program between April 2008 and December 2012.

Intervention

A diabetes self-management program comprising an initial assessment, a group education session, and 3, 6, and 12 month clinical reviews.

Main outcome measures

Program attendance after referral; and achievement of management goals for HbA1c, BMI, total cholesterol, quality of life and psychological distress.

Results

Ninety-four percent (n=219/232) of referred clients attended at least once. Multivariate logistic regression showed that attending at least once was significantly associated with living within 25km of the service. Non-smokers/former smokers, general practitioner-referred clients and those with diabetes management plans were significantly more likely to attend three or more sessions. At 12 months clients showed significant improvements in cholesterol, BMI, quality of life and psychological distress.

Conclusion

This study demonstrates that diabetes nurse-educator led self-management programs which adapt to their rural contexts – including geographically dispersed catchment populations and resource constraints – provide highly accessible services meeting the needs of most. Nevertheless, some groups (cigarette smokers, those living furthest from the service) may remain marginalised and less able to access services. Improvements in health outcomes for these clients may require further adaptation of models of care to better target their health care needs.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the support of the Centre of Research Excellence in Rural and Remote Primary Health Care. The research reported in this paper is a project of the APHCRI, which is supported by a grant from the Australian Government Department of Health and Ageing. The information and opinions contained in it do not necessarily reflect the views or policy of the APHCRI or the Australian Government Department of Health and Ageing. Funding for the diabetes self-management program was provided through the Victorian Department of Health.

INTRODUCTION

Diabetes is a significant global problem. Prevalence among adults is estimated to be 9% and in 2013 it was the 7th leading cause of death (Vos et al 2015; World Health Organization 2014). In Australia, 5.4% of adults have diabetes, and of these 85-90% have type 2 diabetes mellitus (T2DM) (Australian Institute of Health and Welfare 2012; Australian Bureau of Statistics Microdata 2011-2012). The prevalence of T2DM and its associated complications is significantly higher in rural and remote areas and the complications of poor control of T2DM are well known and frequently life-threatening (Australian Institute of Health and Welfare 2008).

Nurses working in rural areas play a key role supporting the management of T2DM, particularly where local staff and healthcare resources are limited. Systematic reviews report that diabetes self-management (DSM) programs improve diabetes knowledge, its management and positively influence health outcomes (Colagiuri et al 2009). However, most of the evidence is based on DSM programs undertaken by specialist-teams in metropolitan settings. In contrast, the evidence-base on the accessibility of DSM programs in rural areas is limited. In rural and remote locations a range of issues affect whether an individual with diabetes accesses appropriate care for their chronic disease. Important dimensions of health service accessibility vary amongst individuals and the contexts in which they live. Nevertheless, health workforce shortages, proximity to health services, the way in which the care is organised, acceptability of the services offered, awareness of what services are available and the affordability of care may each impact on health service utilisation (Russell et al 2013). Similarly, evidence regarding the health outcomes that can be achieved by clients attending rural DSM programs, which have necessarily been adapted to meet population health care needs because of spatial accessibility (availability and proximity) issues, is also limited.

This paper addresses these research gaps, investigating factors associated with participation in a diabetes nurse-educator led self-management program which aimed to increase access to local diabetes support, education and management for rural Australian clients with T2DM. Further, this study investigates the significance of changes in health outcomes (glycosylated haemoglobin (HbA1c), total cholesterol, BMI, quality of life and psychological distress) for individual clients and factors associated with whether or not HbA1c management goals were achieved.

METHOD

Setting

The setting for this study is a community health service located more than 200 kilometres from the nearest major city, Melbourne. The health service provides acute, aged and primary health care services to a catchment population of 10,000.

Participants

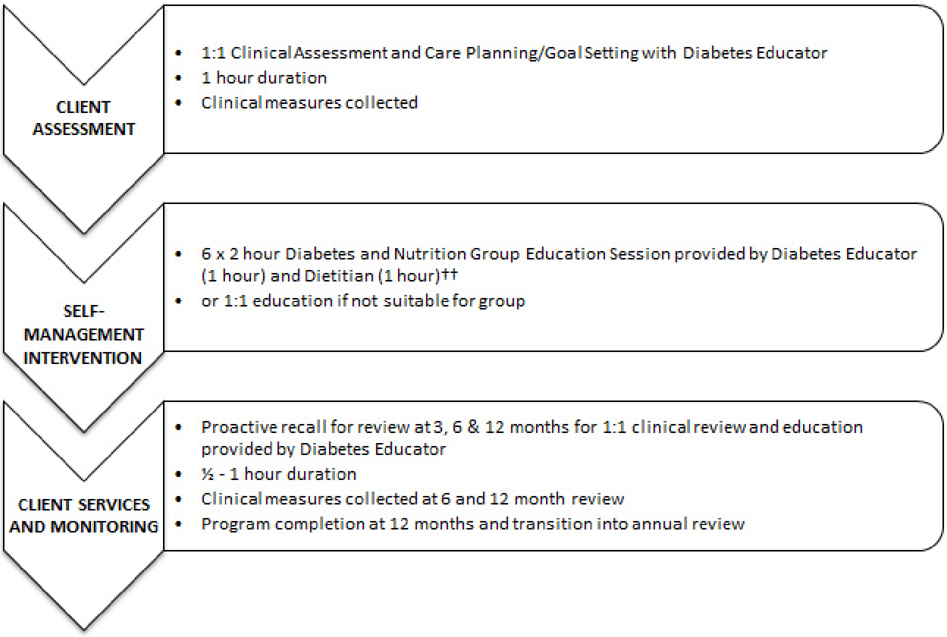
Participants were clients diagnosed with T2DM, according to the National Health and Medical Research Council criteria (National Health & Medical Research Council 2001), and referred to the program by GPs or other health practitioners.

Intervention

The intervention was based on the Victorian Department of Human Services (DHS) DSM program model of care (see figure 1). The program comprised five sessions in total: initial client assessment, an education session, and proactive recalls at 3, 6 and 12 months. While it is recommended that allied health staff, such as a podiatrist, staff the program in this locality of allied health workforce shortages, a diabetes nurse-educator led the program.

Instead of the recommended six weekly 2-hour group education sessions, the program was adapted to comprise one 2-hour group education. This structure was determined based on the limited availability of staff and resources, and to minimise patient travel which was thought to be a barrier to participation in this rural setting. The 2-hour group education session was facilitated by the diabetes nurse-educator and dietitian.

Figure 1: Model of Care – Diabetes Self-Management Program for newly diagnosed Type 2 Diabetes†



- 1:1 Clinical Assessment and Care Planning/Goal Setting with Diabetes Educator
- 1 hour duration
- Clinical measures collected

- 6 x 2 hour Diabetes and Nutrition Group Education Session provided by Diabetes Educator (1 hour) and Dietitian (1 hour)††
- or 1:1 education if not suitable for group

- Proactive recall for review at 3, 6 & 12 months for 1:1 clinical review and education provided by Diabetes Educator
- ½ - 1 hour duration
- Clinical measures collected at 6 and 12 month review
- Program completion at 12 months and transition into annual review

† *Source:* Adapted from Victorian Government Department of Human Services, Diabetes self-management Guidelines for providing services to people newly diagnosed with Type 2 diabetes, Melbourne, Victoria: DHS, 2007.

†† Adapted to 1 x 2 hour education session in this setting

Data collection, measures and analysis

Data were extracted from health records of clients referred to the DSM program between April 2008 and December 2012. A tailored data extraction tool was designed and refined following pilot testing on 20 records.

Program attendance was measured according to the number of sessions clients attended. Two binary outcome variables were created; 1) indicating whether clients attended none, compared with at least one of the 5 sessions and 2) indicating whether clients attended 3 or more sessions compared with attending only 1 or 2 sessions.

Demographic predictor variables included age, gender, English language country of birth, employment status, health care card status, receiving government benefits and living arrangements. Distance between the client's home and the health service was calculated using Google maps and categorised (≤5, 5-25, ≥25 kms). Clinical predictor variables included referral source, existence of a care plan, smoking status, treatment with oral hypoglycaemic drugs, presence of chronic pain and number of co-existing chronic diseases.

Achievement of diabetes management goals was measured by assessing individual-level changes in clinical indicators between initial assessment and 12 month review. Indicators included HbA1c, total cholesterol, BMI, psychological distress (K10) and utility scores for health-related quality of life (AQoL4D) (Hawthorne et al 2013; Kessler et al 2002). K10 scores range from 1-50. AQoL4D measures health-related quality of life across dimensions of illness, independent living, social relationships and psychological wellbeing (Hawthorne et al 2013). Management goals were selected based on the Victorian state guidelines for diabetes management in community health settings (Australian Institute for Primary Care & Ageing 2012). Cut-off values for these were based on WHO and national guidelines (Primary Health Care Research and Information Service 2012; Australian Institute of Health and Welfare 2009; World Health Organization 2000).

Statistical analyses were conducted using Stata/IC 11.2 (StataCorp LP, College Station, Texas, USA). Multivariate logistic regression models tested associations between demographic/clinical indicators and 1) the attendance outcome variables and 2) achieving HbA1c management goals. Variables significant at $p<0.25$ in bivariate analysis were included in the initial multivariate models, and retained in the final model if significant at $p<0.05$. Missing data were handled by list-wise deletion. McNemar's test was used to test whether there were significant differences in the proportion of participants achieving improvements compared to those with deteriorations in their diabetes management goals.

ETHICAL APPROVAL

The study was approved by Monash University Human Ethics Research Committee (No. 2012001953).

FINDINGS

Program access

Between April 2008 and December 2012, 232 clients were referred (94% by GPs and 6% by other health professionals) to the program. Of these clients, 219 (94%) attended at least once, while 190 (82%) attended 3 or more sessions. The characteristics of referred clients are shown in table 1. Clients had a mean age of 62 years (SD = 12 years). While most clients lived near the service (median distance 4.4 km), 20% lived more than 25 kilometres away.

Bivariate logistic regression revealed that attending the program at least once was significantly associated with increased distance from the health service ($p<0.05$). Increasing age and having a care plan were significant at $p<0.25$ and were included in a multiple logistic regression model. Non-significant variables excluded from the model were gender, referral source, and being on oral hypoglycaemic medications at the time of referral. The only significant variable remaining after stepwise multiple logistic regression was the distance that the client lived from the health service. Clients living within 5 km of the service were more than five times more likely to attend at least once compared to clients living more than 25 km away.

Factors found to be significantly ($p<0.05$) associated with attendance at three or more sessions via bivariate testing included being a non-smoker, having no asthma or chronic obstructive pulmonary disease, having a GP referral and a diabetes care plan. These variables, and variables significant at the $p<0.25$ level (English speaking country of birth, receipt of a government pension, being a health care card holder and the number of chronic diseases) were included in a multivariate model. The distance from the health service was not significantly associated with attendance at three or more sessions ($p>0.25$) and was not included. The multivariate model showed that being a non-smoker/former smoker, not having a chronic respiratory condition, having a GP referral and a diabetes care plan were significant predictors of attendance at three or more sessions (table 2).

Table 1: Self-reported characteristics of clients upon referral to DSM Program

	n	%
Gender		
Male	130	56.0
Female	102	44.0
Employment status		
Employed	77	35.3
Not employed	141	64.7
Low Income-Health Care Card and/or Gov't payment		
No HCC/Gov't payment	72	31.4
HCC/Gov't payment	157	68.6
Living Status		
Lives alone	46	20.4
Does not live alone	180	79.6
Number of chronic conditions present		
0	54	23.3
1	109	47.0
2+	68	29.7
History of Cardiovascular Disease	153	66.2
History of Mental Illness	46	19.9
Health rating at intake		
Excellent/Very good	53	24.1
Good	103	46.8
Fair/Poor	64	29.1
Smoking status		
Current smoker	46	21.0
Non/Ex-smoker	173	79.0
Medical Management method		
Nutrition	148	63.8
Oral Hypoglycaemic Agent	84	36.2

Table 2: Multiple logistic regression model for clients attending 3 or more diabetes self-management sessions

Reference	Variable	Odds Ratio	95% confidence interval	p value
Current cigarette smoker	Non-smoker or former cigarette smoker	7.8	2.7 – 22.0	<0.001
Asthma or chronic obstructive pulmonary disease	No asthma or chronic obstructive pulmonary disease	4.6	1.5 – 14.2	0.009
Referred by other type of health professional	Referred by General practitioner	6.0	1.3 – 28.7	0.024
No care plan	Care plan	3.5	1.1 – 11.0	0.029
After missing data:		n=170, PseudoR^2=0.232		

Health outcomes

At 12 months, statistically significantly greater proportions of participants achieved improvements rather than deteriorations in diabetes management goals for cholesterol and BMI and in quality of life and psychological distress (table 3). HbA1c results at 12 months were available for 86 participants. Of these, 17 clients (20%) did not achieve HbA1c diabetes management goals, recording levels greater than 7.0%. Factors significantly associated with HbA1c>7.0 at 12 months in bivariate logistic regression ($p<0.05$) included age, English speaking country of birth, HbA1c≤7.0 at initial assessment, neuropathic feet changes at initial assessment, more chronic conditions and hypertension. HbA1c≤7.0 at initial assessment and diagnosed hypertension when referred remained as significant predictors of meeting diabetes management goals for HbA1c in the final model (table 4).

Table 3: Proportion of participants achieving diabetes management goals from assessment to 12 months †

OUTCOME VARIABLE	Diabetes management goals	n pairs	Total number of discordant pairs	Number of discordant pairs showing improvement in management goal	McNemar's chi^2 ¶ statistic	p
HbA1c	≤7% and >7)	64	16	11	2.25	0.134
Total cholesterol	<4 and ≥4 mmol/L	62	17	16	13.24	<0.001
BMI	<30 and ≥30 kg/m2	127	16	14	9.00	0.003
K10 Score	<22 and ≥22	125	7	7	Not appropriate	0.016
AQoL4D Utilities Score	<0.71 and ≥0.71	116	63	49	19.44	<0.001

† Follow up data (at 12 months) was available for n=86 participants

Exact p value calculated using binomial distribution

Table 4: Multiple logistic regression model for clients meeting diabetes management goals for HbA1c

Variable	Reference	Odds Ratio	95% confidence interval	p value
HbA1c≤7.0 at assessment	HbA1c>7.0	6.5	1.7 - 24.9	0.007
Has diagnosed hypertension	No	5.1	1.3 – 19.9	0.017
After missing data:		n=64, PseudoR^2=0.226		

DISCUSSION

This study indicates that diabetes nurse-led DSM programs in rural areas are well accessed and associated with significant improvements in a number of aspects of individual clients' health. Importantly, improvements occurred in client quality of life and in mental health and wellbeing, which, while not being specific for diabetes, are nevertheless important outcomes.

Many of DSM program clients faced considerable socio-economic disadvantage. The study population comprised two thirds on low incomes, one third of whom were dealing with multiple chronic conditions, and 20% of whom were living with mental illness. Each of these factors not only has the potential to inhibit health service use but also may be associated with poorer health outcomes more generally (Arcury et al 2005). This study suggests that the diabetes nurse-educator led program is not only adequately accessible for vulnerable population subgroups but is associated with meaningful health benefits beyond those related specifically to their diabetes. Nevertheless, clients who were cigarette smokers were less likely to attend three or more sessions compared with non-smokers/former smokers. This suggests that more specific targeting of clients who are cigarette smokers may be needed.

It is likely that accessibility was influenced by the Victorian DHS DSM program design which allows variations in the Models of Care offered by health services. This flexibility in how health services allocate the DSM program funding enabled the health service to tailor delivery to meet the needs of most clients. In this instance, by offering a single group education session which reduced travel burden on clients. Despite these adaptations, distance (living more than 25km away) remains a significant reason for not attending the DSM program, even though it is known that residents of sparsely-populated rural communities are more willing to travel for health care (McGrail et al 2015). While the DSM program offered clients the option for telephone reviews as an alternative to face-to-face consultations, referred clients may be unaware of this possibility until they attend at least an initial assessment. Possible solutions include ensuring that potential and referred clients are aware that services can be delivered via telephone consultations, and offering alternative models of service delivery, such as outreach or other modalities of telehealth, for less proximate clients. A further group of clients who may similarly benefit from being offered alternative models of service delivery that improve accessibility are those with multiple chronic diseases, who otherwise are less likely to attend three or more sessions.

This study showed that the capacity for the diabetes nurse-educator led program to achieve clinical goals for HbA1c is linked to clinical indicators at program commencement, particularly a lower HbA1c at initial assessment and diagnosed hypertension. It is not surprising that patients who had well-controlled diabetes before attending the DSM program also had well-controlled diabetes 12 months later. It also might suggest that diabetes nurse-educator led programs are likely to be more effective in populations with mild to moderate well-controlled diabetes to start with, than in populations with more severe and poorly controlled diabetes. It is not clear from this study why there is an association between diagnosed hypertension and diabetes control at 12 months. One possible mechanism is that patients being managed for hypertension by their GPs may be receiving more regular diabetes care overall and are therefore more likely to have well-managed disease.

This study was limited to a single rural community. Whilst DHS funded multiple sites to implement DSM programs, cross-site comparisons were not possible and there was no control group. As a result it isn't possible to determine whether the improvements noted in clinical outcomes may have occurred anyway (Travaglia and Debono 2009). Further, some of the client pathology results were missing from file notes and this limited the use of regression methods to analyse associations with clinical outcomes. Finally, Victorian Government management guidelines in community health settings identify total cholesterol as a single relevant indicator of lipid control in clients with diabetes. As a result, full lipid profiles of clients are not routinely recorded by programs such as this, so clinically important changes in the lipid profiles of participants related to other lipid components such as the HDL/LDL ratio could not be identified.

These limitations notwithstanding, this research nonetheless demonstrates the significance of geographical accessibility to health services for rural populations managing chronic diseases such as T2DM. It also highlights the importance of several clinical factors (cigarette smoking and having multiple chronic diseases) that are associated with reduced utilisation of the diabetes self-management program.

CONCLUSIONS

This study suggests that diabetes nurse-educator led DSM programs in rural settings that are carefully tailored to meet community and client needs using available resources can be accessible to most and effective at improving diabetes management. This study has identified where further targeting of at-risk populations and program adaptation is needed to encourage attendance – in this instance by smokers, those with multiple chronic diseases and those living further away.

REFERENCES

Arcury, T.A., Gesler, W.M., Preisser, J.S., Sherman, J., Spencer, J., and Perin, J. 2005. The effects of geography and spatial behavior on health care utilization among the residents of a rural region. *Health Services Research*, 40(1):135-155.

Australian Bureau of Statistics Microdata. 2011-2012. Australian Health Survey: Core content - risk factors and selected health conditions. AIHW: Canberra.

Australian Institute for Primary Care & Ageing. 2012. Immediate client outcomes for community health and public dental services in Victoria. La Trobe University: Victoria.

Australian Institute of Health and Welfare. 2008. Indicators for chronic diseases and their determinants 2008. Cat. no. PHE 75. AIHW: Canberra.

Australian Institute of Health and Welfare. 2009. Key indicators of progress for chronic disease and associated determinants: technical report. AIHW: Canberra.

Australian Institute of Health and Welfare. 2012. Australia's health 2012. Australia's health no. 13. Cat. no. AUS 156. AIHW: Canberra.

Colagiuri, R., Girgis, S., Eigenmann, C., Gomez, M. and Griffiths, R. 2009. National evidence based guideline for patient education in type 2 diabetes. *Diabetes Australia and the NHMRC*: Canberra.

Hawthorne, G., Korn, S. and Richardson, J. 2013. Population norms for the AQoL derived from the 2007 Australian National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Public Health*, 37(1):7-16.

Kessler, R.C., Andrews, G., Colpe, L.J., Hiripi, E., Mroczek, D.K., Normand, S.-L.T., Walters, E.E. and A.M., Z. 2002. Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine* 32:959-976.

McGrail, M.R., Humphreys, J.S., and Ward, B. 2015. Accessing doctors at times of need-measuring the distance tolerance of rural residents for health-related travel. *BMC Health Serv Res* 15:212.

National Health & Medical Research Council. 2001. National Evidence Based Guidelines for the Management of Type 2 Diabetes Mellitus Part 3 Case Detection and Diagnosis of Type 2 Diabetes. Australian Government: Canberra.

Primary Health Care Research and Information Service. 2012. National performance indicators for Divisions of General Practice. Retreived from http://www.phcris.org.au/divisions/reporting/div/obj/oi_details.php?objid=14 (accessed 08.03.16).

Russell, D.J., Humphreys, J.S., Ward, B., Chisholm, M., Buykx, P., McGrail, M., and Wakerman, J. 2013. Helping policy-makers address rural health access problems. *Australian Journal of Rural Health*, 21(2):61-71.

Travaglia, J. and Debono, D. 2009. Clinical audit: a comprehensive review of the literature. Centre for Clinical Governance Research, University of New South Wales:

Vos, T., Barber, R.M., Bell, B., Bertozzi-Villa, A., Biryukov, S., Bolliger, I., et al. 2015. Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet* 386(9995):743-800.

World Health Organization. 2000. Obesity: preventing and managing the global epidemic - Report of a WHO consultation. Technical report series 894. WHO: Geneva.

World Health Organization. 2014. Global status report on noncommunicable diseases 2014. WHO: Geneva.

A paediatric nurses' journal club: developing the critical appraisal skills to turn research into practice

AUTHORS

Margaret Purnell
MAppSci (Library & Information Mgt), BN (Midwifery), DipAppSci (Nursing)
Clinical Librarian, Library Services, Northern Territory Department of Health,
Building 4, Royal Darwin Hospital, Darwin, Northern Territory, Australia
margaret.purnell@nt.gov.au

Gina Majid
Grad Dip (Paediatric Nursing), Grad Cert (Clinical Education), BN, RN
Clinical Nurse Educator, Paediatric Unit, Royal Darwin Hospital,
Rocklands Drive, Darwin, Northern Territory, Australia
gina.majid@nt.gov.au

Dr Virginia Skinner
PhD, MN (Hons), BHSc (Nursing), RN, RM
Senior Midwifery & Nursing Advisor, Office of Chief Nursing and Midwifery Officer, Northern Territory Department of Health,
Health House, Mitchell St, Darwin, Northern Territory, Australia
virginia.skinner@nt.gov.au

KEYWORDS

nursing, journal club, critical appraisal, survey, paediatrics, confidence

ABSTRACT

Objectives
The aim of this study was to determine if implementation of a regular journal club improves critical appraisal confidence and facilitates integrating research literature into nursing practice.

Design
A survey was distributed to all paediatric nurses across two wards who had potentially attended the journal club in the previous two years.

Setting
This small scale study was undertaken at a northern Australian hospital.

Sample
The surveys were distributed to 58 nurses from the two paediatric wards and 33 of them responded but only 29 of these had attended the journal club leaving 29 surveys to be analysed for this study.

Results
The majority of responses to the survey questions were positive. When statistically analysed by Pearson's correlation, four variables showed a strong association: increased confidence with interpreting research literature, developing critical appraisal skills, the sharing of knowledge and integrating evidence-based practice into nurses' workplace.

A number of changes in practice have occurred as a direct result of the journal club.

Conclusion
The results from this study support the benefits of utilising nursing journal clubs to promote clinical practice that is informed by research evidence.

INTRODUCTION

Health professionals are required to continually assess their clinical practice to provide the best patient care. Evidence-based practice provides a structure for finding and evaluating the latest current research evidence and integrating it into daily clinical care. This is fundamental to optimising patient outcomes (Profetto-McGrathet al 2010).

Keeping clinically current in the nursing profession has become more important in recent years, especially with increasing research being published to support changes in practice. Honey and Baker (2011) identified a clear need for healthcare professionals to be more research aware in order to meet the requirements of professional registration and to deliver patient care that is informed by evidence. There are a number of strategies that can be used to achieve these standards. One of these strategies is to initiate and integrate a regular journal club into the professional development time of the workplace environment.

This paper outlines a study that was conducted to explore the impact of one such hospital-based journal club. The project aimed to assess whether implementation of a regular journal club improves critical appraisal confidence and facilitates integrating research literature into nursing practice.

BACKGROUND

Literature

Journal clubs in the medical profession have been running for well over 100 years (Lachance 2014). Nursing journal clubs are a more recent event as nursing pushed to become more professional in the 1980s and 1990s (St. Pierre 2005). There is no existing standard method for gaining the most educational benefit from a journal club. Member contribution appears to be a key factor to facilitating meaningful discussion (Nesbitt and Barton 2014) as well as having a motivated group leader (Deenadayalanet al 2008).

A journal club can be defined as a group of individuals who meet regularly to discuss and critically evaluate recent research articles in the academic literature. This environment provides a connection or 'bridging the gap' between the best research and application to clinical practice (Bilodeau et al 2011; Stallingset al 2011; Goodfellow 2004), thereby identifying a common underlying philosophy for sharing of current knowledge to improve patient care (Deenadaylan et al 2008).

Review articles have discussed the effectiveness of journal clubs and report on studies that found a significant impact on at least one learning outcome measure (Deenadaylan et al 2008). There is growing evidence that journal clubs are a successful way to improve confidence, research awareness and knowledge (Lachance 2014; Honey and Baker 2011). The application of this knowledge may then increase the nurses' confidence in clinical practice and pave the way for evidence-based practice.

The benefits of a hospital-based journal club include promoting a better understanding of the research process and improving the ability to critically appraise journal articles (Mattila et al 2013; Steenbeek et al 2009). Further advantages include creating a supportive environment for discussion (Nesbitt 2013) and identifying topics for further research (Hughes 2010). The structured use of a critical appraisal tool to determine the quality of the study and a set of guidelines for critiquing research is a common feature of successful journal clubs (Dirschl et al 2003).

Acquiring the confidence to critically appraise journal articles has been studied. One study (Mukherjee et al 2006) surveyed participants attending a multidisciplinary pilot study journal club, reporting a priori and post hoc results. Before journal club attendance, 22% of participants felt confident appraising the research. Following attendance at the journal club sessions, 78% of participants felt confident, showing a marked improvement in this attribute.

Annually in Australia, nurses register with the Health Practitioner Regulation Agency and confirm that they comply with competencies set out by the Nursing and Midwifery Board of Australia (NMBA). These competencies state that the Registered Nurse needs to use best available evidence and nursing expertise in the provision of nursing care and that they demonstrate analytical skills to access and evaluate health information and research (NMBA 2006). Nurses can work on achieving these competencies with the support and encouragement of attending a regular professional journal club.

This review of the literature has revealed that investigations into the benefits of nursing journal clubs mostly consist of descriptive studies, literature reviews or instructions on 'How to run a Journal Club'. Therefore, this research project addresses a gap in the literature that focuses on identification of correlational associations between variables to increase nurses' confidence in critiquing research to facilitate evidence-based practice.

The Monthly Journal Club

A monthly journal club was commenced in 2012 to support and encourage the paediatric nurses at a northern Australian hospital to engage in evidence-based practice, ensuring practice was current. The main aim at the time was to improve patient outcomes in the paediatric unit. The development of a working relationship between the Paediatric Clinical Nurse Educator and the Clinical Librarian began in September 2011 when the Librarian presented an Evidence-Based Practice for Health Professionals class. Discussions commenced to initiate a journal club and the Educator and Librarian have continued to collaborate to lead the group. The liaison and communication underpinning their leadership has been beneficial to the promotion and attendance at the monthly sessions.

Another crucial element of this journal club's success was attributed to the Educator encouraging nursing staff to participate. The journal club sessions were informal, supportive and friendly. The sessions were held monthly for one hour in the early afternoon (to maximise attendance from two crossover shifts on the wards). Numbers of staff attending the monthly journal club in the two years leading up to the survey ranged from five to 17. Nursing staff involved in the paediatric journal club consisted of a vast mix of backgrounds with baseline skills that included hospital-trained staff, overseas nurses for whom English was a second language, postgraduate and recently qualified new graduate nurses.

The Educator organised a different speaker each month to give a short presentation about an article. Journal club topics were chosen using either recent clinical cases, questions arising from current practice or recent articles of interest. Topics discussed included: fasting times on paediatric wards, oral sucrose for paediatric pain, acute rheumatic fever, falls in hospital, bedside handover and bronchiolitis.

The Librarian contributed to the journal club by searching for relevant research articles and presenting information on methods for interpreting research study findings. The Librarian also attended the monthly sessions to support discussions around the critical analysis of results. A webpage was created as part of the Library's Paediatric Subject Guide to link to the articles and presentations.

Before commencing the journal club, the Educator and Librarian discussed the importance of using a simple critical appraisal tool (a checklist with analysis questions) for interpreting the research article during each meeting. A number of tools were reviewed for use during the journal club sessions but it was felt important to develop a user-friendly and simple critical appraisal tool that suited this group's needs. The Librarian developed a simple one page checklist.

Time restraints and shift work resulted in staff not always reading the allocated article prior to the meeting. However, they were still encouraged to attend and become involved in discussions. Following a short presentation, the nurses were given the opportunity to read and ask questions about the article and they discussed issues surrounding application to practice.

METHODS

This study was undertaken using a quantitative correlational approach. The sample population comprised of nurses from two paediatric wards (a total of 58 staff) who had potentially attended one or more journal club meetings. An online survey was used to collect responses. The survey instrument was written and developed using the web-based Survey Monkey questionnaire that the nurses could access via a link. The survey consisted of 11 questions. Two were background questions which focused on the respondent's nursing category and the number of years of nursing experience. The next three questions focused on whether or not the respondent had attended one or more journal club meetings. The survey ended here for those who had not attended. Four questions were statements requiring a response on a five point Likert scale from strongly agree to strongly disagree. The last two questions were qualitative open-ended to explore the views of respondents and to gather recommendations for future journal club meeting improvements.

The link to the survey was distributed via email and from a survey icon on the Health Library's Paediatrics Journal Club webpage. The survey was able to be accessed for six weeks in August and September, 2014. The data collected were de-identified and consent was implied once the survey was completed and submitted.

Statistical analysis was performed in Microsoft Excel and Statistical Package for Social Sciences (SPSS) Version 21 for Windows. Initially, the response data for the survey questions were converted to numeric scores from the Likert scale. Cronbach's alpha was calculated on all questions to determine reliability for this sample of nurses. Cronbach's alpha (α) is a measure of internal consistency or split half reliability (Field 2013). It is usually calculated for each variable and will be 1 if all items are the same and 0 if none of them are related. Satisfactory values are between 0.7 and 0.8 (Bland and Altman 1997). Pearson's correlation coefficient (r) is measured to determine the relationship between two variables. There is a strong relationship if this coefficient is between 0.6 and 0.9 (Moule 2015). The researchers in this study wanted to determine if variables were associated with each other. For example, does developing critical appraisal skills enhance practising evidence-based practice?

Ethics approval was obtained from the Northern Territory Department of Health and Menzies School of Health Research Human Research Ethics Committee.

RESULTS

Demographics

The surveys were distributed to 58 nurses from the paediatric wards and 33 responded, a response rate of 57%. Twenty-nine completed surveys were analysed. The four incomplete surveys were participants who had not attended any of the journal club meetings. Respondents who had not attended any of the meetings only answered the first four questions. Demographic data are represented in table 1.

Table 1: Demographic Data of Participants

Demographic Variables	n	%
Nurse Classification		
New Graduate	3	9
Registered Nurse	24	73
Educator	3	9
Manager	3	9
TOTAL	**33**	**100**
Nursing Experience (years)		
Less than one	5	15
One to five	8	24
Five to ten	5	15
Over ten	15	46
TOTAL	**33**	**100**

FINDINGS

The participants were asked how often they had attended a journal club session, 12 of the respondents (41%) had been three or more times, whereas 11 had been once and six had been twice.

Four questions of the survey were Likert scale rating questions requiring one of five responses ranging from strongly agree to strongly disagree. The majority of responses to all four questions were positive (see table 2).

Nearly three-quarters of respondents (n=21) either strongly agreed or agreed that attending journal club had increased their confidence with critically appraising journal articles. The vast majority (97%) of respondents (n = 28) agreed or strongly agreed that attending the journal club facilitated sharing of knowledge and interaction between nurses. After attending one or more journal club sessions, 97% of respondents (n=28) agreed or strongly agreed that discussion in these sessions enabled them to think about ways they could change practice on the ward. Also, the majority (93%) of respondents (n = 27) either agreed or strongly agreed that attending the journal club sessions were a useful tool to promote evidence-based practice in the workplace.

Table 2: Descriptive data of benefits of attending journal club

Statement	Strongly Agree n(%)	Agree n(%)	Neither Agree nor Disagree n(%)	Disagree n(%)	Strongly Disagree n(%)	Total answered question n(%)
Attending journal club has improved my confidence in critically appraising journal articles	8(27.5)	13(45)	8(27.5)	0(0)	0(0)	29(100)
Journal club facilitates the sharing of knowledge and interaction between nurses	10(34.5)	18(62)	1(3.5)	0(0)	0(0)	29(100)
Journal club discussions have enabled me to reflect on ways I can change practice on the ward	9(31)	19(65.5)	1(3.5)	0(0)	0(0)	29(100)
Journal club is a useful tool to promote evidence-based practice in the workplace	10(34.5)	17(58.6)	2(6.9)	0(0)	0(0)	29(100)

When calculated using Cronbach's alpha, these four questions had values of 0.733, 0.807, 0.739 and 0.759 respectively. These results yielded good reliability considering the small sample size.

Pearson's correlation coefficient (r) was also calculated to determine the strength of association between the four questions (variables). There was a positive association between all the variables (see table 3).

Table 3: Correlational data of benefits of attending journal club

	Facilitates sharing of knowledge	Discussions enabled me to reflect on change in practice	Tool to promote evidence-based practice in workplace
Confidence Critical Appraisal	.698**	.627**	.639**
Facilitates sharing of knowledge	1	.690**	.727**
Discussions enabled me to reflect on change in practice	.690**	1	.663**
Tool to promote evidence-based practice in workplace	.727**	.663**	1

** Correlation is significant at the p < 0.01 level (2-tailed)

DISCUSSION

Confidence with Critical Appraisal

This study investigated a number of factors relating to participation in a paediatric journal club. A key component was the ability to appraise research articles, a skill that is developed continuously with practice. Critical appraisal provides a framework for systematically clarifying the strengths and weaknesses of a research study to determine validity and application of the findings (Young and Solomon 2009). It is vital for assimilation of research into practice (Rycroft-Malone and Bucknall 2010).

The interpretation of research study results appears to be a barrier for many nurses as they "struggle to understand research studies and find reading and critiquing the content intimidating" (Gloeckner and Robinson 2010, p267). One of the key findings in this study was that confidence in critical appraisal was positively associated with discussions enabling a change in practice (r = .627, p<0.01) so that regular, ongoing discussions about evidence-based research articles in the workplace may ameliorate nurses' apprehension in the future.

Sharing Knowledge

The finding that facilitating sharing of knowledge was positively associated with using the journal club as a tool to promote evidence-based practice in the workplace (r = .727, p<0.01) is supported by other studies that also recommend knowledge sharing in a journal club setting as a way of stimulating evidence-based practice in patient care (Nesbitt and Barton 2014; Maaskant et al 2013).

An integral part of the success of a journal club is identifying leaders to coordinate and assist the participants with the knowledge sharing in the sessions. The leaders may not guide the discussion each time but retain responsibility for promoting the meetings, distributing articles in advance and establishing the format for discussion (Luby et al 2006). The leadership shown by the Educator and Librarian may relate to the finding that facilitating sharing of knowledge was positively associated with discussions enabling reflection about change of practice (r = .690, p<0.01).

Application to Clinical Practice

The aim when commencing this journal club in 2012 was to improve patient outcomes in the Paediatric Unit. Therefore, discussing how the research literature could fit into local practice has been a significant part of the monthly journal club meetings. Results from this study found that discussions enabling reflection about change in practice was positively associated with using the journal club as a tool to promote evidence-based practice in the workplace (r = .663, p<0.01).

Practice changes that have occurred as a direct result of this journal club include: the development of a falls prevention and management guideline, a working group to discuss procedure fasting times, a new visual child-friendly pain scale and updating procedures for medication safety.

The findings from this study suggest that participation in a journal club has a favourable effect on a number of aspects that can potentially improve nursing practice. The paediatric journal club meetings have now been ongoing for a period of four years.

Limitations

Even though the sample size of this study was small, results still yielded statistically significant findings providing evidence that larger studies in this area are worth pursuing.

CONCLUSION

This journal club study highlights the positive correlation between being part of a regular journal club and developing critical appraisal skills, the confidence with interpreting research literature, the sharing of knowledge and integrating evidence-based practice into nurses' workplace.

Despite the small sample size, this research contributes to the evidence that nurses developing these skills enables reflection on clinical practice and also influences possible changes in patient care.

It is important for health professionals working in a hospital setting to take responsibility for their own learning by professional development activities such as reading and appraising the published research in their field as well as keeping up to date with general topics in evidence-based practice. This can be more successfully achieved with the support and promotion of a regular journal club.

RECOMMENDATIONS

Regular participation in a journal club can facilitate reflection on clinical practice and the integration of research into patient care.

Using a simple critical appraisal tool and having committed leaders plays an important role in the success of a journal club

Nurse Educators are encouraged to include a monthly journal club in the professional development time on their wards

REFERENCES

Bilodeau, I., Pepin, J. and St. Louis. L. 2011. Journal club in a critical care unit: an innovative design triggering learning through reading and dialogue. *Dynamics*, 23(1):18-23.

Bland, J. and Altman, D. 1997. Statistics Notes: Cronbach's alpha. *British Medical Journal,* 314: 572.

Deenadayalan, Y., Grimmer-Somers, K., Prior, M. and Kumar, S. 2008. How to run an effective journal club: a systematic review. *Journal of Evaluation in Clinical Practice*, 14(5):898-911.

Dirschl, D.R., Tornetta, P. and Bhandari, M. 2003. Designing, conducting, and evaluating journal clubs in orthopaedic surgery. *Clinical Orthopaedics and Related Research*, 413:146-157.

Field, A. 2013. Discovering Statistics using SPPS, SAGE Publications, London.

Gloeckner, M.B. and Robinson, C.B. 2010. A nursing journal club thrives through shared governance. *Journal for Nurses in Professional Development*, 26(6):267-270.

Goodfellow, L.M. 2004. Can a journal club bridge the gap between research and practice? *Nurse Educator*, 29(3):107-110.

Honey, C.P. and Baker, J.A. 2011. Exploring the impact of journal clubs: a systematic review. *Nurse Education Today*, 31(8):825-831.

Hughes, J. 2010. Developing a journal club that impacts practice. *Gastroenterology Nursing*, 33(1):66-68.

Lachance, C. 2014. Nursing journal clubs: A literature review on the effective teaching strategy for continuing education and evidence-based practice. *The Journal of Continuing Education in Nursing*, 45(12):559-565.

Luby, M., Riley, J.K. and Towne, G. 2006. Nursing research journal clubs: bridging the gap between practice and research. *Medsurg Nursing: official journal of the Academy of Medical-Surgical Nurses,* 15(2):100-102.

Maaskant, J.M., Knops, A.M., Ubbink, DT. and Vermeulen, H, 2013. Evidence-based practice: a survey among pediatric nurses and pediatricians. *Journal of Pediatric Nursing*, 28(2):150-157.

Mattila, L., Rekola, L., Koponen, L. and Eriksson, E. 2013. Journal club intervention in promoting evidence-based nursing: Perceptions of nursing students. *Nurse Education in Practice*, 13: 423-428.

Moule, P. 2015. Making sense of research in nursing, health & social care (5th ed). London: Sage.

Mukherjee, R.A., Owen, K. and Hollins, S. 2006. Evaluating qualitative papers in a multidisciplinary evidence-based journal club: a pilot study. *Psychiatric Bulletin*, 30(1):31-34.

Nesbitt, J. 2013. A two-site case study of nurses continuing professional development. *Nurse Education Today,* 33(8):896-900.

Nesbitt, J. and Barton, G. 2014. Nursing journal clubs: A strategy for improving knowledge translation and evidenced-informed clinical practice: invited manuscript for the journal of radiology nursing, *Journal of Radiology Nursing*, 33(1):3-8.

Nursing and Midwifery Board of Australia (NMBA). 2006. *National Competency Standards for the Registered Nurse.* Retrieved from http://www.nursingmidwiferyboard.gov.au (accessed 10.07.16).

Profetto-McGrath, J., Negrin, K.A., Hugo, K. and Smith, K.B. 2010. Clinical nurse specialists' approaches in selecting and using evidence to improve practice. *Worldviews on Evidence-Based Nursing*, 7(1):36-50.

Rycroft-Malone, J. and Bucknall, T. 2010. Models and Frameworks for Implementing Evidence-Based Practice: Linking Evidence to Action. Chicester, West Sussex: Wiley-Blackwell.

St Pierre, J. 2005. Changing nursing practice through a nursing journal club. *Medsurg nursing: official journal of the Academy of Medical-Surgical Nurses*, 14(6):390-392.

Stallings, A., Borja-Hart, N. and Fass, J. 2011. New Practitioners Forum: Strategies for reinventing journal club. *American Journal of Health-System Pharmacy*, 68(1):14.

Steenbeek, A., Edgecombe, N. and Durling, J. 2009. Using an interactive journal club to enhance nursing research knowledge acquisition, appraisal, and application. *International Journal of Nursing Education Scholarship*, 6(1).

Young, J.M. and Solomon, M.J. 2009. How to critically appraise an article. *Nature Reviews Gastroenterology & Hepatology*, 6:82-91.

Managing medical service delivery gaps in a socially disadvantaged rural community: a Nurse Practitioner led clinic

AUTHORS

Jo Kelly
MN (NP); Grad Dip Palliative Care; Grad Dip Gerontics; BN; Cert Skin Cancer Medicine; Lymphoedema (Level 1)
What Matters Most, PO Box 742, Cowes, Victoria, Australia
jo@whatmattersmost.net.au

Deb Garvey
NP; LLB; MIHM; MN; Grad Dip Crit Care (ED, ICU, CCU), RIPRN; BN; Cert Skin Cancer Medicine; Cert Women's Health, DG Nurse Practitioner
c/o Grantville Transaction Centre, Cnr Bass Highway & Pier Road, Grantville, Victoria, Australia
deb.garvey@dcsi.net.au

Mary Anne Biro
PhD, RN, Senior Lecturer, Peninsula Campus
Operational Lead, Monash University
School of Nursing and Midwifery
McMahons Road
Frankston, Victoria, Australia
Maryanne.Biro@monash.edu

Susan Lee
PhD, RN, Senior Lecturer, Director Research Degrees
Monash University, School of Nursing and Midwifery
McMahons Road, Frankston, Victoria, Australia
Susan.Lee@monash.edu

Acknowledgements

We thank all health consumers who attended the NPCC inspiring our vision during its tenancy. This paper was funded by the aid of the Victorian Nurse Practitioner Publication Grant, Nursing and Midwifery Policy, Department of Health. Approval to undertake the study was obtained from Monash University Research Ethics Committee.

KEY WORDS

Nurse Practitioner; Primary care; Primary health care; Consumer satisfaction

ABSTRACT

Objective

The aim of this pilot project was to investigate how Nurse Practitioners (NP) manage medical service delivery gaps in a socio-disadvantaged rural Victorian region.

Design

A cross-sectional study utilising data from patient consultations that took place at the Nurse Practitioner Community Clinic (NPCC) over six months in 2013 and patient satisfaction survey.

Setting

The NPCC is a rural clinic servicing a rural population in Victoria.

Subjects

629 patients.

Main outcome measures

Numbers of patients; presentations; age; gender; postcode; reason for encounter; consultation length; availability of General Practitioner (GP); consultation activities and follow up; NP Medicare Benefits Scheme (MBS) item number rebate; and equivalent GP MBS item number rebates.

Results

Over 50% of patients were female; 60% aged over 45 years. Patients had 2.6 encounters with the NPCC; over 50% lasting between 10 and 20 minutes. Approximately half the revenue of that claimed in equivalent GP encounters. Common reasons for attendance were symptoms and complaints (37.2%) and attendance was viewed as convenient and accessible, despite having a regular GP (47.8%). Fifty six Patients responded to a satisfaction survey and indicated they were satisfied with the service would use the service again and would recommend it.

Conclusions

The NPCC provided an accessible service that met patients' needs in a rural community. The study provides evidence that NPs can provide medical management in areas where medical service delivery gaps exist. However, there was a significant discrepancy between funding reimbursements for services provided at the NPCC and those provided by GPs.

INTRODUCTION

Nurse Practitioners (NP) have been authorised and licenced to practise in Australia since December 2000 (Dunn et al 2010). Since 2010, they have had provider and prescriber rights under the Medicare Benefit Scheme (MBS) and Pharmaceutical Benefits Scheme (PBS). By December 2013, 1,000 NPs were endorsed in Australia. In a survey of Australian adults Parker et al (2014) found that 87% were willing to see a Nurse Practitioner regarding their primary care needs. In addition, it is widely accepted that a shortage of doctors in rural areas requires innovative solutions, beyond recruiting overseas trained doctors and training more local doctors. One such solution is the development of the Nurse Practitioner (NP) service (Kamalakanthan and Jackson 2009). There is, however, a lack of research regarding the provision of NP services, particularly to rural communities within Australia.

A search of the literature utilised keywords of ‘Nurse Practitioner’, ‘Rural’, ‘Primary Care’, ‘Primary Health Care’ and were combined using the Boolean operator ‘and’. The databases used were CINAHL, Medline and Psycinfo. The time period researched was from January 2000 to July 2015. There were 105 articles, however most studies were conducted in Canada, United States of America or United Kingdom. There were two publications from New Zealand and only five studies in Australia.

The discourses related to the legislative and policy frameworks governing NP practice have been investigated in two studies (Harvey 2011; Turner et al 2007). These studies suggest that despite the rhetoric about autonomous practice, NPs are still cast in the role of care givers rather than care providers. This lack of clarity is further evidenced in a study by Parker et al (2013) using seven focus groups across Australia, which found health care consumers were confused about the roles of NPs compared to doctors and other nurses. There were no studies found that clarified the roles of NPs in rural Australia and there were no studies found that evaluated the work of rural NPs in Australia. Poghosyan et al (2012) recommended NPs actively engage in publishing the productivity of clinical service delivery, addressing workforce shortages and recognising that NPs can add value to health service and contribute to reducing health costs by incorporating their full scope of practice.

A pilot project established under an Australian Commonwealth Department of Health and Aging (DOHA) to improve access to primary care services for older people developed a Nurse Practitioner Community Clinic (NPCC) for a disadvantaged rural population in southern coastal Victoria. The clinic opened to the public servicing all age groups in June 2012. Local reports indicate the communities in the region are considered socially and geographically disadvantaged with significant primary health service gaps (Aspex Consulting 2010; Vinson 2007). Prior to the establishment of the NPCC, the residents of this community had no access to GP services within a twenty-five kilometre radius, very few GP services offered a MBS Bulk Billing service (meaning patients paid the full cost of the service at the consultation, before they were partially reimbursed by Medicare), there was limited access to nursing and allied health services and limited access to public transport. The NPCC was staffed by two nurse practitioners working 1.4 effective full time (EFT) for a period of two years.

This study reviewed the NPCC over a six month period to examine the characteristics of patients attending; the types of encounters; the NPCC Medicare rebates compared to General Practitioners (GP) for the same items; and the level of patient preference and satisfaction.

METHOD

Existing data collected by the NPCC and a survey of patients to determine service satisfaction and preferences for service over a six month period in 2013 formed the basis of this study. A cost analysis of service provision was undertaken to determine the Medical Benefits Scheme cost differential between NP and standard medical services.

Clinic Consultation Data

An existing data set, collected in relation to consultations in the clinic, was mined and the data was de-identified and entered in to an Excel spreadsheet. The data included numbers of patients; number of presentations; age; gender; postcode; main reason for encounter; length of consultation; availability of regular GP; activities during consultation and follow up; NP MBS item number rebate equivalent GP MBS item number rebates; and cost of consumables utilised for sustainability purposes however this final category of data was not sufficiently complete to include in analysis.

Satisfaction Survey

Satisfaction surveys were distributed periodically and returned by mail anonymously. The satisfaction survey included five (5) Likert scale response questions related to service satisfaction, 12 limited response questions regarding service intentions and one (1) open ended response question. Survey data was entered into another Excel spreadsheet by the receptionist of the NPCC.

Ethical review was exempted by Monash University Research Ethics Committee (CF14/3795 - 2014001988) on the basis that the study involved an existing record containing only non-identifiable data. The study was also approved by the Regional Health Service overseeing the NPCC.

De-identified clinic consultation and survey data were provided to the Monash University authors, independent of the clinic and health service, for analysis. Numeric data was summarised using numbers and percentages. Qualitative responses to the survey were transcribed verbatim to a single document and the data read repeatedly searching for patterns. This allowed the grouping of data excerpts into themes which were then described.

FINDINGS

During the study period there were a total of 649 patients who presented to the NPCC, of which 57.9% were female. The majority of patients represented the older age groups with more than 60% aged 45 years and above. There were 341 new patients attending the NPCC during the study period (table 1).

The most common reasons why people chose to attend the NPCC were that despite having a GP, the NP was convenient and accessible (47.8%) or the patient was happy to receive shared care between the NP and GP (11.9%) or their specialists (4.5%). However, a number of people indicated that they attended the NPCC because they were dissatisfied with GPs (26.5%) or had no regular GP (9.4%) (table 2).

Table 1: Demographic characteristics (n = 649)

	n	(%)
Gender		
Male	273	(42.1)
Female	376	(57.9)
Age category ()		
< I year	12	(1.8)
1-4 years	16	(2.5)
5-14 years	57	(8.8)
15-24 years	51	(7.9)
25-44 years	98	(15.1)
45-64 years	200	(30.8)
65-74 years	139	(21.4)
> 75 years	76	(11.7)
New patient		
Yes	341	(52.5)

Table 2: Reasons for choice of Nurse practitioner (n = 649)

	n	(%)
NP convenient and accessible, has regular GP	310	(47.8)
Prefers NP Clinic to GP wants share care to GP; Can't afford doctors, does not like GPs, happy with NP clinic; refuses to go to GP	172	(26.5)
Shared care with GP, happy with NP service, NP clinic has good service	77	(11.9)
NP convenient and get same day appt; no regular GP	56	(8.6)
Shared care with specialists, happy with NP clinic	29	(4.5)
No regular GP	5	(0.8)

There were 1,677 encounters during the study period with the average of 2.6 encounters per patient (table 3). In over 35% of encounters a prescription for medication was provided. The length of encounter was recorded for 1,621 encounters. More than 50% of the encounters were of between10 and 20 minutes duration, rebated at a rate of $17.85 per consultation compared to the rebate for GPs of $37.05 per consultation. This represents a difference of $17.05 between rebates, which over six months and 958 consultations is a rebate difference between NP consultations and equivalent GP consultations of $16,333.90. For longer consultations of between 20-40 minutes (nearly 33% of consultations), the rebate for NPs is less than half that for GPs. The rebate income for the NPs during the six month period for these longer consultations was just over $18,000 but for equivalent GP consultations, it would have been $39,000 (table 3).

Table 3: Encounter number, duration and rebate

Number of encounters	**N = 1,677**			
	Mean	***Median***	***Range***	
No. of encounters per patient	2.6	1	1-28	
	n	***%***		
Received a prescription during encounter	614	(36.6)		
Length of encounter (where pt. present)	**N = 1621**			
	n	***(%)***	***NP Rebate***	***MBS rebate***
< 10 mins	59	(3.6)	$8.70	$16.95
10 - 20 mins	948	(58.5)	$17.85	$37.05
20 – 40 mins	544	(33.6)	$33.80	$71.70
> 40 mins	70	(4.3)	$49.80	$105.55

Nurse Practitioner encounters were categorised using the International Classification of Primary Care – Version 2 (ICPC-2) (Britt et al 2014). The three most common reasons for encounters were for symptoms and complaints (37.2%); diagnostic, screening and prevention (26.3%) and medications (including prescriptions), treatments and procedures (24.8%). Table 4 outlines the primary reasons for encounters.

Table 4: Primary reason/s for encounter (n = 1,658*)

	n	**%**
Symptoms and complaints	616	(37.2)
Diagnostic, screening and prevention	436	(26.3)
Medications (includes prescriptions - 279), treatments and procedures	412	(24.8)
Test results	149	(9.0)
Referrals	52	(3.1)
Administrative	58	(3.5)

*Denominator varies due to missing values; Respondent may have more than one reason for encounter (total percentage > 100%).

The variance of prescriptions issued between the table 3 – 614 and table 4 – 279 results as table 4 represents the primary reason for the encounter rather than the result of the encounter.

The NPCC had a satisfaction survey that patients could participate anonymously and voluntarily in order to provide feedback for the NPCC over a two week study period. A total of 56 patient satisfaction surveys were returned during the study period. Of these patients, 87.5% had visited the NPCC more than once. All these respondents indicated they would see the NP again for a similar need and would recommend the NPCC to others. A total of 60% of patients waited no more than five minutes after their appointment time to see the NP. All were happy with the length of the consultation and the information they received from the NP and all felt the NP was thorough. In response to the question "How has the NPCC benefited you?", the most common responses were the location of the NPCC in their local community reduced travel time, costs and inconvenience; appointments were available when needed; the staff were knowledgeable, provided information and a service of quality; and the staff were warm, caring and provided a personal service.

DISCUSSION

In this study, the work of a rural NP clinic has been quantified, showing the breadth of activities in encounters of 649 patients over a period of six months. The satisfaction survey returned by 56 patients contributed further details to the study. The results also highlighted the funding difference provided by Government Rebate to NP services in comparison to GP services. A national survey of General Practice activity between 2013-2014 (Britt et al 2014), revealed the gender distribution of female patients was predominant at 56.6% of consultations, similar to this study. In addition, the age distribution of infants attending consultations was similar with nearly 2% infants. This study included a significantly higher number of consultations with patients over the age of 65 years with 15.1% in the national survey compared to 41.5% in our study being over the age of 60 years. This may reflect the vulnerability of the population in this area compared to the national average. Britt et al (2014) reports the older population are more likely to attend general practice and have increased frequency and need for additional encounters associated to their chronic conditions and multiple comorbidities. Parker et al (2009) reflected on the necessity for the uptake of NPs in the primary care sector due to the ageing population and increasing health demands due to chronic disease. They suggested that NPs could significantly address the workforce issue and add value to the primary care sector (Parker et al 2009). In addition, prior to the commencement of the NPCC, residents in two townships in the area had to travel more than 25 kilometres to obtain rudimentary medical care. Additionally, these two townships have a high rate for disability and sickness (South Coast Primary Care Partnership 2012). The main conditions contributing to the relatively poor health status of residents in study area were chronic conditions of liver disease; chronic respiratory disorders attributed to asthma and chronic obstructive pulmonary disease (COPD); diabetes and a higher rate of malignant cancers and cardiovascular disease than the Victorian State average (Aspex Consulting 2010). Studies (Ryan and Rahman 2012; Martin, 2000) suggest that health consumers often disregard routine health care checks until their health deviates from their normal. Further, the consequences are significantly worse for those consumers who have a low socio-economic background, live in an underserviced area, have little access to public transport and have an out-of-pocket expense to pay when presenting to the medical profession (Ryan and Rahman 2012; Martin 2000).

NPs and GPs in Australia have a Provider Identification Number to obtain reimbursement for care provided from the MBS. Payments under the MBS received for the same four consultation time item numbers vary significantly between NPs and GPs. At the time of the clinic operation in 2013, a NP was reimbursed a Medicare rebate range from $8.70 - $49.90 depending on the time of consultation, whilst a GP rebate ranged from $16.95 - $105.55. NPs earned less than 50% rebate benefit compared to GPs (RACGP 2014).

Another major point of difference between this study and the national survey is the mean length of time of the consultations. Since 2004-2005, the mean length of consultation for GPs has decreased to 14.8 minutes, and the median length was 13 minutes in 2013-2014 (Britt et al 2014). In our study, 58.5% of our consultations lasted between 10 – 20 minutes, and 33.6% were between 20 – 40 minutes in relation to the claiming of MBS time consultation items. Whilst the figures have not been extrapolated exactly to indicate the mean or median length of consultations, this data is consistent with other literature indicating NPs provide longer consultation time with the health consumer (Keleher et al 2009). NPs provide a wellness model that objectively targets improving consumers' health and wellbeing knowledge by recommending physical exercise, cultivating healthier nutritional regimes, encouraging a reduction in smoking and alcohol intake as well as opening discussions about the impact of lifestyle on chronic disease (Keleher et al 2009). The relationship, along with the ability to engage in meaningful communication and attentiveness between the NP and the health consumer, improves comprehensive care, enhancing the health consumer's knowledge and compliance and giving rise to ultimate satisfaction, often accompanied by improved health outcomes (Ryan and Rahman 2012; Keleher et al 2009). Longer NP consultations allows patients to discuss their needs which may be beneficial to their health outcome; as opposed to the patient having to make several appointments with a GP due to the time pressures on GP practice of imposing time limitations in order to see greater numbers (Ryan and Rahman 2012).

While the national survey (Britt et al 2014) indicated there has been a decrease in consultation length since the 2004-2005 data, the claiming of chronic disease management items, health assessment and GP mental health care have all significantly increased. Disparity arises where GPs in Australia have the ability to be reimbursed for numerous clinical procedures and incentive payments whereas NPs, having the same scope to undertake and perform these procedure, do not obtain reimbursement for the same items from the MBS.

This study demonstrated that NPs add direct clinical benefits through reducing the accessibility gap in areas of need and providing cost effective care in a timely manner to improve health outcomes. This has been recognised by others to reduce the burden on other health care institutions, reducing hospital admissions and length of stay through recognised earlier interventions (Poghosyan et al 2012; Ryan and Rahman 2012; Bauer 2010).

A major limitation of this study in being able to compare the data to the Britt et al (2014) survey is that the data base was set up for purposes other than this pilot project. In this study, the NP data only recorded the main reason for the encounter and did not record the number of issues addressed during the consultation despite often being faced with multiple reasons within the encounter. Also not recorded was the actual diagnosis from any of the consultations within this data. In the Britt et al study (2014), 70.9% of problems concluded with at least one medication or treatment given; 62.1% of encounters resulted in at least one medication prescribed, supplied or advised; 9.8% of problems led to referrals; and at least one investigation was requested in 19.1% of cases. In our study, only the main encounter was recorded, and in this regard a direct comparison the Britt et al (2014) study cannot be made.

NPs are able to provide a high level of medical care and when working in collaboration with a range of other health professionals, the health consumer benefits by access to timely efficient care that helps address the increasing demand for primary care (Poghosyan et al 2012; Middleton et al 2007).

The Britt et al study (2014) indicated a decrease in home visits which has implications for the older person wishing to be managed at home rather than in institutional care. Britt et al (2014) reported that a total of 2.6% of all MBS items combined for Residential Aged Care Facilities, institutions and home visits were claimed, providing an opportunity for NPs to service this cohort of patients, though it was not a component of the NPCC role. Keleher et al (2009) recognised that there has to be a dynamic restructure if Australia is to reduce the burden of cost of the health sector by switching care from institutions to home and community based facilities. The provision of ambulatory primary health care, provided by NPs and delivered within community-based facilities, enabled timely efficient health outcomes, potentially reducing hospital presentations and in turn reducing costs to the health sector (Ryan and Rahman 2012; Bauer 2010; Keleher et al 2009; Horrocks et al 2002).

The funding of NPs prevents them from operating to the full extent of their authorisation. In countries such as the United States of America, NPs are granted a Provider Identification Number which ensures they receive a greater access to Government medical benefit schemes than their Australian counterparts, with benefit rates of 85% from their MBS, helping ensure sustainability for the services NPs deliver (Poghoysan et al 2012).

It is no longer the case that only medical practitioners are qualified to offer differential diagnosis, investigate, diagnose and treat the health consumer, indicating that there is a role and need for NPs across Australia (Ortiz et al 2010). Our study showed that 26.5% of people attended the NPCC because they were dissatisfied with GPs, and the overall satisfaction levels of the NPCC patients who completed the satisfaction survey were positive. This concurs with the common theme revealed from several articles in the primary health care sector indicating the equivalency between NPs and doctors, showing that patient satisfaction and appreciation was higher for NP services (Ryan & Rahman 2012; Ortiz et al 2010; Hayes 2007; Horrocks et al 2002). Nurse Practitioners often detected more physical complaints through providing longer consultations; offering supplementary advice on self-care; health promotion with proactive management; and utilising active listening and communication skills thus building a greater affinity with the health consumer (Ryan and Rahman 2012; Ortiz et al 2010; Hayes 2007; Horrocks et al 2002).

Less satisfaction and lack of care is greater in areas where resources are lacking, particularly in underserviced areas with elements of high disadvantage (Ryan and Rahman 2012). Hayes (2007) indicated the health consumers when seen by a NP were more likely to implement and follow the care plan interventions as trust and rapport were established as a result of patients valuing the NPs contribution. This combined with the short access times to the NPCC contributed to increased access and satisfaction from the community, also found in our study.

Parker et al (2013) found Nurse Practitioners in primary care were recognised and accepted by health consumers to provide routine consultations and manage uncomplicated chronic conditions in Australia. Several articles recognised there is a real need in Australia to have NPs acknowledged for the health care they provide, as they have the ability to increase quality of life for the wider population, with similar or sometimes better health outcomes, increasing satisfaction for the health sector and providing significant Government savings in the area of health (Bauer 2010; Horrocks et al 2002).

RECOMMENDATIONS

This study has demonstrated the sustainability for NPs in Australia is difficult due to several reimbursement differences awarded by the Australian Government. Despite the significant contribution NPs are able to make to rural communities, without further research into the equitable access of fund reimbursements, they will be unable to affect health policy, economic and workforce issues as their role was envisaged (Mills et al 2011; Bauer 2010). The MBS system should be revised to include reimbursement amounts for NPs that are fair and realistic, reflecting their service provision and ensuring sustainability and longevity for NPs in the primary health care sector (Bauer 2010; Middleton et al 2007).

The role of NPs in rural communities remains under-investigated. Further research needs to be undertaken to analyse these roles and understand the relationship of NPs to GPs in small communities.

CONCLUSION

The NPCC in this study demonstrated an innovative and flexible service to a small rural area, which was valued by the patients using the service. Despite this, the Government reimbursement of services is at least 50% less than similar services provided by General Practitioners. Appropriate funding of Nurse Practitioners in Australia is essential for the development and economic sustainability of new models of primary health care, particularly for vulnerable, more isolated populations.

REFERENCES

Aspex consulting. 2010. *Gippsland South Coast Service Plan and Model of Care - Final Service Plan July 2010*. Aspex Consulting: West Melbourne.

Bauer, J.C. 2010. Nurse practitioners as an underutilized resource for health reform: Evidence-based demonstrations of cost-effectiveness. *Journal of the American Academy of Nurse Practitioners,* 22(4):228-231.

Britt, H, G C Miller, J Henderson, C Bayran, L Valenti, C Wong, J Gordon, A J Pollack, Y Pan, and J Charles. 2014. General practice activity in Australia 2013-2014. In *General Practice Series no. 37*. Sydney: Sydney University Press.

Dunn, S.V., Cashin, A., Buckley, T. and Newman, C. 2010. Nurse practitioner prescribing practice in Australia. *Journal of the American Academy of Nurse Practitioners,* 22(3):150-155.

Harvey, C. 2011. Legislative hegemony and nurse practitioner practice in rural and remote Australia. *Health Sociology Review*, 20(3):269-280.

Hayes, E. 2007. Nurse practitioners and managed care: Patient satisfaction and intention to adhere to nurse practitioner plan of care. *Journal of the American Academy of Nurse Practitioners,* 19(8):418-426.

Horrocks, S., Anderson, E. and Salisbury, C. 2002. Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors. *BMJ*, 324(7341):819-823.

Kamalakanthan, A. and S. Jackson. 2009. Doctor supply in Australia: rural-urban imbalances and regulated supply. *Australian Journal of Primary Health,* 15(1):3-8.

Keleher, H., Parker, R., Abdulwadud, O. and Francis, K. 2009. Systematic review of the effectiveness of primary care nursing. *International Journal of Nursing Practice*, 15(1):16-24.

Martin, K. 2000. Nurse Practitioners: A Comparison of Rural-Urban Practice Patterns and Willingness to Serve in Underserved Areas. *Journal of the American Academy of Nurse Practitioners*, 12(12):491-496.

Middleton, S., Allnutt, J., Griffiths, R., McMaster, R., O'Connell, J. and Hillege, S. 2007. Identifying measures for evaluating new models of nursing care: A survey of NSW nurse practitioners. *International Journal of Nursing Practice*, 13:331-340.

Mills, J., Lindsay, D. and Gardner, A. 2011. Nurse Practitioners for rural and remote Australia: Creating opportunities for better health in the bush. *Australian Journal of Rural health*, 19:54.

Ortiz, J., Wan, T., Meemon, N., Paek, S. and Agiro, A. 2010. Contextual Correlates of Rural Health Clinics' Efficiency: Analysis of Nurse Practitioners' Contributions. *Nursing Economics*, 28(4):237-244.

Parker, R., Keleher, H., Francis, K. and Abdulwadud, O. 2009. Practice nursing in Australia: A review of education and career pathways. *BMC Nursing*, 8(1):1-6.

Parker, R., Forrest, L., Ward, N., McCracken, J., Cox, D. and Derrett, J. 2013. How acceptable are primary health care nurse practitioners to Australian consumers? *Collegian: Journal of the Royal College of Nursing, Australia*, 20(1):35-41.

Parker, R., Forrest, L., McCracken, J., McRae, I. and Cox, D. 2014. "What primary health-care services are Australian consumers willing to accept from nurse practitioners? A National Survey." *Health Expectations,* 17(5):733-740.

Poghosyan, L., Lucero, R., Rauch, L. and Berkowitz, B. 2012. Nurse Practitioner Workforce: A Substantial Supply of Primary Care Providers. *Nursing Economics*, 30(5):268-274; 294.

RACGP (2014) Medicare Benefits Schedule fee summary For Fellows of The Royal Australian College of General Practitioners or vocationally registered general practitioners. http://www.racgp.org.au/download/Documents/PracticeSupport/2014mbsfeesummary.pdf (accessed 05.02.15).

Ryan, K. and Rahman, A. 2012. Examining factors influencing patient satisfaction with nurse practitioners in rural urgent care centres. *Journal of American Academy of Nurse Practitioner*, 24(2):77-81.

South Coast Primary Care Partnership. 2012. Integrated Chronic Disease Management http://www.southcoastpcp.org.au/index.php/programs-a-services/integrated-chronic-disease-management?layout=default (30.04.12).

Turner, C., D. Keyzer, and T. Rudge. 2007. Spheres of influence or autonomy? A discourse analysis of the introduction of Nurse Practitioners in rural and remote Australia. *Journal of Advanced Nursing,* 59(1):38-46.

Vinson T. 2007. Dropping Off The Edge The Distribution Of Disadvantage In Australia. http://catholicsocialservices.org.au/node/976 (26.04.12).

Literature review: Why do we continue to lose our nurses?

AUTHOR

Pete Goodare
BN, RN, Grad Cert Clinical Teach/Learning (nursing),
Grad Dip Acute Care (nursing), MClinN (acute care nursing)
The Mater Hospital, 25 Rocklands Road, North Sydney
New South Wales, Australia
pgoodare@gmail.com

KEY WORDS

Nurses, literature review, nursing shortage, nursing attrition, shortage, ageing workforce, retention

ABSTRACT

Objective
To decrypt what determining factors contribute to nurses leaving the clinical facet of the profession.

Primary argument
Nurses encompass the largest professional constituent of the health care workforce in most countries, resulting in the impact of a shortage of these professionals, as immense. A projection in the shortage of nurses is upon us, and the margin in the reduction of these health professionals is thought to be worse than any of the preceding cyclical reductions. More than half of the nursing profession feel they are underpaid and overworked, resulting in the likelihood of patient's needs not being met, significantly increasing. Lengthy hours, quality of working environments, lack of leadership and the ageing population and workforce, can all be seen as influential factors, in which have the potential to leave this profession in a situation of calamity.

Conclusion
In light of the predicted global demand for nurses over the next decade, the departure and retirement of the existing nursing workforce will potentially result in the loss of significant and treasured experience and organisational knowledge, weakening the capacity and capability of the nursing profession.

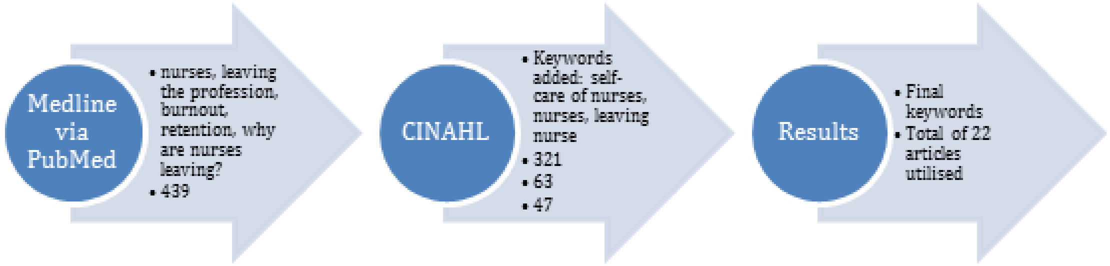
INTRODUCTION

Nursing has frequently been referred to as vital to the safe and humane provision of healthcare and services to our populations (Scott et al 2014). Nursing originated as a vocation, and is still immortalised in the mind of the public, with the selfless caring of Florence Nightingale (Currie and Carr-Hill 2013). Further opinions mirror the vocational label of nursing, referring to nurses as humane practitioners, whom focus on the psychosocial, spiritual and physical needs of individuals. The modern era of nursing steers away from this caring nature of our nursing ancestry, to an ever-increasing technical age of the profession. The use of clinical judgement, technical data and technology in general, have created the expectation and need for nurses to prove their technical competence in the twenty first century. The modern day clinically and technically skilled nurse is expected to marry these modern expectations of the industry, with the vocational needs held dearest to those we assist (Scott et al 2014).

METHOD

Shortages in the nursing profession have been widely documented but often ill-defined (Buchan et al 2015). Reference to this shortage is commonly referred to as a ‘looming’ problem, rather than a current issue, requiring contemporary and effective action. Many countries are facing the jinx of an ageing population needing to be cared for by an ageing workforce and it has been said that by 2025, it is anticipated Australia will have a shortage of 109,000 nurses (Faithfull-Byrne and Cross 2015). This clashing of existences will see a shortfall of 9 million nurses by 2030 (World Health Organization 2016). With 41.6 being the average age of nurses in Australia and a predicted 36% of nursing positions being left vacant by 2020 in the United States of America alone, the next few decades are crucial in escaping the collapse of the nursing faculty in health care (Wright and Bretthauer 2010; Wickett et al 2003).

In order to undertake this literature review a search of three electronic databases took place over a two month period: CINAHL (Cumulative Index for Nursing and Allied Health Literature), PubMed and Medline via PubMed. All searches were done in English and the following keywords and phrases were utilised in the search of each database: ‘nurses’, ‘leaving the profession’, ‘burnout’, ‘retention’ and ‘why are nurses leaving?’ These keywords and phrases were used to determine the causes of nurses when reducing their hours in the workplace, or to leave the profession totally. With the assistance of smartext in Medline via PubMed, 439 articles were yielded from the phrase ‘why are nurses leaving?’ Topics such as self-care and resilience arose, prompting addition of these keywords when searching the CINAHL database. A preferred database, CINAHL was able to yield 321 full text articles from ‘self-care of nurses’ and 63 articles from ‘nurses’ and ‘leaving nursing’. After determining that 47 of the returned articles from this search were relevant to supporting the presented question, I focused on the methodological processes to narrow my analysis further. Grounded theories and exploratory design were two methods of greatest appeal, as there was a desire to find research that incorporated both qualitative and quantitative outcomes. A well-grounded picture of the current situation was required regarding the constructed question which could refine and establish research priorities. Semi-structured interviews played a sizeable part in this investigative process centred round social science. A semi-structured interview process enabled authors to incorporate new ideas throughout the course of discussion. Interviewed and surveyed groups varied from moderate to large in size with a preference for larger groups in order to allow for optimal accuracy of data. It is from these search methods that I was able to narrow my focus to 22 articles, confirming the availability of a surplus of information on this topic, heightening convictions that this is a worthwhile aspect of the profession to explore.



RESULTS

Literature suggests that the shortage of nursing professionals has been a known and ongoing crisis worldwide for the past decade. Numerous efforts have gone into the recruitment of nurses, resulting in an annual increase rate of 9.8%, higher than the projected demand growth rate of 2.12% (Buchan et al 2015; Bureau of Labor Statistics 2011 cited in Chan et al 2013; National Council of State Boards of Nursing 2010). Having achieved such positive results in the recruitment of nurses the real challenge may exist in the retention of these newly obtained nurses, once they are in the clinical nursing environment. When determining why nurses leave the profession it seems beneficial to determine why they entered it in the first place. The literature on reasons for entering the nursing profession is abundantly clear with a constant parallel concluding that individuals who enter nursing have a deep and professional commitment to patients. Choosing a career in nursing is based on a desire to provide care in a time of need and/or crisis. Some entrants claim to be answering a ‘calling’, and that they could not imagine doing anything else (Eley et al 2010; Hill 2009; Kovner et al 2007). With one central desire shared by a large group of individuals in such a large industry what could go or have gone amiss to prevent these individual’s from continuing to answer this calling.

Research suggests a multitude of reasons for nurses leaving the profession, with multiple groups and sub-groups of identified issues. MacKusick and Minick (2010) state that an estimated 30%-50% of all new nurses elect either to change positions or leave nursing completely within the first three years of clinical practice. Amongst all age groups, nearly 40% of nurses working full-time have taken a leave of absence from the profession, and the proportion of part-time nurses doing the same increases to 70%. In the early to mid-twentieth century nursing was a life mission with nurses’ career paths noted for their longevity. In this, the twenty first-century, a nurses’ career length is thought to be five years or less with an estimated 2.5 million nurses not actively practising. Furthermore, dropout rates for new graduate nurses are accelerating with as many as 60% leaving their first job within the first year (Hodges et al 2004; Gulack 1983). With such alarming statistics of departure in the industry discovering why we are losing these valuable individuals is paramount.

Due to the overwhelming amount of literature available on the issue of nurses leaving the profession it was thought necessary to begin the review of reasons broadly before delving into the most commonly identified issues detailed by the authors. Chan et al (2013) performed a systematic literature review of the shortage in the nursing profession and why members had the intention to leave. Chan et al (2013) highlighted two major categories of reason: Organisational Factors and Individual Factors. Organisation factors influencing the exit from the nursing profession include: work environment; culture; commitment; work demands and social support. Structural empowerment is used to revitalise an organisation’s structure. This is said to bring about access to information, resources, support and opportunities to develop and empower nurses. A positive relationship between a revitalised organisational structure and job satisfaction was identified. If a work environment was seen to be deteriorating, with a lack of support from an organisational level, nurses were more likely to leave (Macken and Hyrkas 2014). The set of values, beliefs and behaviour patterns which forms the identity of an organisation is aimed at helping to shape employees behaviours. If inconsistencies arise in an organisation’s culture, nurses are likely to see their organisation as unable to assist in fulfilling their self-goals, resulting in retreat. Commitment can be closely linked to the culture of an organisation.

If a nurse cannot identify with an organisation's values and beliefs, and does not see evidence of execution of same, then nurses' attitude towards the organisation will be tainted, leading to disconnection. Work demands also play a part in determining whether nurses stay or go, as young nurses in particular do not want to work night shift or weekends, and other, more senior nurses, saw these times as the only period they had to spend with their families (Ihlenfeld 2004). Nurses with higher patient loads were more likely to report an intention to leave, as this resulted in exhaustion, lack of time for reflection and discussion amongst colleagues (Chan et al 2013). Finally, from an organisational perspective Chan et al (2013) found that nurses, who are socially supported from supervisors and co-workers, reported a higher level of intent to stay. A low quality of teamwork is associated with intention to leave, as nurses can feel that hospital administrator's side with doctors, focusing more on financial duties and do not respect nurses, or their opinions (Macken and Hyrkas 2014; Ihlenfeld 2004).

The second broadly mentioned category from Chan et al (2013) is the aforementioned Individual Factors comprising of: job satisfaction; demographic factors and burnout. Greishaber et al (1995) defines job satisfaction as the favourableness or unfavourableness with which employees view their work. Numerous studies have identified that low job satisfaction is associated with a greater intention to leave, and for nurses the dissatisfaction stemmed from the inability to provide high-quality care to their patients. Nurses' perceptions of their work environment are predominantly centred on ward practice, co-worker relationships, staffing and resources, professionalism and management (Martin 2015). Choi et al (2013) found there is significant negative association between nurses self-indicated level of job satisfaction and intention to exit the profession, with 44.5% of nurses reporting being dissatisfied with their jobs, and more than 60% of this group stating they had thought about resigning from their current positions.

By steering the direction of this topic to demographics, literature was more challenging to come by. Chan et al (2013) covers this most thoroughly suggesting that age, gender, marital status, type of shift worked, number of years in nursing, number of years in current position, type of clinical unit and level of education, all identified as demographic influences. Nursing is a rapidly ageing and female-dominated workforce. Currently the average Australian nurse is 41.6 years of age, with this number expected to increase over the next decade. This is reflected on an international scale with the average age of nurses in Denmark, Finland, Ireland, New Zealand, Sweden, the United States of America and the United Kingdom, ranging from 42-47 years of age (Buchan et al 2015) and the United States of America estimating that 40%, or between 500,000-600,000, of their nursing workforce are over the age of 50 (McMenamin 2014; Gabrielle et al 2008).

Ever-increasing acuity and workloads, coupled with an ageing workforce, presents the threat of a significant drop out from the nursing profession which is potentially unavoidable. Nurses aged 45 years old or older are members of the profession who are more likely to stay whereas nurses between the ages of 25-35 years old are more likely to 'move on', in search of more regular and sociable hours (Chan et al 2013). It has been found that male nurses have a greater intention to leave than female nurses due to a greater desire for career progression and issues surrounding monetary compensation. Money has been referred to as perhaps one of the greatest influences impacting the mobility of nurses. The money that nurses receive is not enough based on the educational qualifications required and expected of them, and many nurses themselves feel they are underpaid (Stodart 2015; Chan et al 2013; Chandra 2003). With the rises in cost of living ever-present the role that monetary compensation plays in career choice of an individual becomes increasingly dominant. From a survey of nurses who have left the profession and of high school students considering which career path to choose the following statements consecutively resulted: "I make better pay and have better benefits in another profession", and "I can make more money doing something else" (Ihlenfeld 2004).

Irrevocably, one of the most recurrently documented, and perhaps most troubling reasons for nurses intention to leave the profession, is due to burnout. Burnout was first recognised as a psychological concept in the 1970s, defined as emotional exhaustion, depersonalisation and a reduction in perceived personal accomplishment. Different studies have shown that nurses display high levels of emotional exhaustion, thought to arise from a prolonged discrepancy between what the individual gives and receives in the workplace, with diminutive praise (Macken and Hyrkas 2014; Garcia and Calvo 2012; Fearon and Nicol 2011). Burnout has been shown to arise from physical and psychological stress factors characteristic of the hospital environment. Such as: excess work generated by the growing demand for hospital care, excessively long working days, constant changes in working conditions, the conflict between nursing care priorities, and management or financial priorities that can lead to stressful organisational atmospheres (Macken and Hyrkas 2014; Garcia and Calvo 2012).

Burnout in the workplace results in increased financial costs, regarding sickness and staff turnover, whilst also reducing the quality of care. Of all the professions, nurses have been shown to experience higher levels of occupational stress and burnout, which is of great concern, considering the nature and responsibilities involved in their work. This increased level of stress can lead to failure to recognise patient distress with potentially disastrous consequences (Stewart and Terry 2014). For nurses meaningful relationships with their patients is a major factor in their ongoing commitment to their work. The humanistic ideal requires nurses to develop deep personal and interpersonal understanding and sensitivity to provide effective care. In order to establish these relationships it is necessary for nurses to be capable of emotional engagement. Nurses suffering symptoms of burnout will be disengaged and literature suggests this would be indicative of suffering from ‘compassion fatigue’ (Fourer et al 2013).

In an exploratory study of 142 female nurses conducted by Ruggerio (2003), 53.7% were identified to be suffering from chronic fatigue, 34.8% displayed traits of anxiety and 44.8% with total mood disturbances. A review by the Department of Health on the health and wellbeing of National Health Service staff found that more than one quarter of staff absence was due to stress, depression and anxiety (Fearon and Nicol 2011). From this abundance of literature reviewed and data collected investment in resilience, wellbeing and self-care programs for nurses are becoming increasingly essential. The psychological wellbeing of nurses is important for several reasons. With such disorders as anxiety, depression and compassion fatigue heavily linked to our profession, this could perhaps be the largest precursor for nurses exiting the workforce. Nurses who exhibit changes to their psychological wellbeing are more likely to resign from their position, or may alternatively be forced to reduce their employment fraction (Drury et al 2014). With approximately half of all Australian nurses working on a part-time basis this could perhaps be the direction in which our industry is headed (Jamieson et al 2008). Motivations to become a part-time nurse included the need to preserve health because of the impact of shift work, work intensification and ageing, financial considerations, the need to be able to manage multiple life roles and attempting to gain some level of ‘control’ in one’s life (Jamieson et al 2008).

DISCUSSION

With such phrases as “I just couldn’t take it anymore”, “nursing is too much”, and “if you are doing a good job, it is mentally as well as physically exhausting and demanding” (MacKusick and Minick 2010; Ihlenfeld 2004), it comes as no surprise that part-time employment and total withdrawal is increasingly present in the nursing profession. This review of the literature has further highlighted the need to make nurses a central focus in the healthcare industry. Statistically speaking, with most nurses being able to relate to the majority of issues raised the care of nurses as individuals and as a group, appears to have fallen by the way side. The image of a nurse has changed from that of a “caring and calm” healthcare professional, to a “caring but stressed” healthcare professional. With high stress, low monetary compensation and unachievable workloads often associated with the nursing profession, we may not require an answer to the question of: why are nurses leaving? But perhaps find ourselves asking the question: why are they not entering this profession in the first place? (McMurtrie et al 2014; Chandra 2003).

RECOMMENDATIONS

- A reduction in workloads for nurses. Allowing nurses to undertake a more realistic workload, will boost job satisfaction and lessen fatigue, encouraging nurses to stay in the profession longer.
- Assurance of strength in support and guidance, within leaders in the profession of nursing. Accomplishment of this could be achieved through a more stringent selection process, when recruiting leaders and managers within the nursing profession.
- Less focus on the financial limitations and targets of the nursing and healthcare profession, and a more central emphasis on the mission and values from which the profession evolved. Preservation of the 'soul' of the industry will inspire feelings of compassion and empathy within nurses, making patients feel 'cared' for, as opposed to 'looked after'.
- More support for the older and more experienced nurse, in order to maintain and perhaps revive the values of nursing. The provision and retention of these nurses will allow for more opportunities for junior and novice nurses to seek suitable mentors. This will allow novice nurses to have the option of being mentored by a leader or by a senior clinician, depending on their chosen pathway.
- Further promotion of the nursing profession and all it has to offer to individuals. Attention must also be paid to those contemplating entering the profession in order for the profession to have individuals to retain.

REFERENCES

Buchan, J., Duffield, C. and Jordan, A. 2015. 'Solving' nursing shortages: do we need a New Agenda? *Journal of Nursing Management*, 23(5):543-545.

Bureau of Labor Statistics 2011. Occupational Outlook Handbook. Available at: http://www.bls.gov/oco/ocos083.htm.

Chan, Z.C.Y., Tam, W.S., Lung, M.K.Y., Wong, W.Y. and Chau, C.W. 2013. A systematic literature review of nurse shortage and the intention to leave. *Journal of Nursing Management*, 21(4):605-613.

Chandra, A. 2003. Why do nurses leave and what can health organisations do to retain them? *Healthcare and Public Policy*, 81(3):33-36.

Choi, S.P.P., Cheung, K. and Pang, S.M.C. 2013. Attributes to nursing work environment as predictors of registered nurses' job satisfaction and intention to leave. *Journal of Nursing Management*, 21(3):429-439.

Currie, E.J. and Carr-Hill, R.A. 2013. What is a nurse? Is there an international consensus? *International Nursing Review*, 60(1):67-74.

Drury, V., Craigie, M., Francis, K., Aoun, S. and Hegney, D.G. 2014. Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia: phase 2 results. *Journal of Nursing Management*, 22(4):519-531.

Eley, R., Eley, D. and Rogers-Clark, C. 2010. Reasons for entering and leaving nursing: an Australian regional study. *Australian Journal of Advanced Nursing*, 28(1):6-13.

Faithfull-Byrne, A. and Cross, W. 2015. Attracting generation Z into nursing as a career. *Australian Nursing and Midwifery Federation,* 23(1):45.

Fearon, C. and Nicol, M. 2011. Strategies to assist prevention of burnout in nursing staff. *Nursing Standard*, 26(14):35-39.

Foureur, M., Besley, K., Burton, G., Yu, N. and Crisp, J. 2013. Enhancing the resilience of nurses and midwives: Pilot of a mindfulness-based program for increased health, sense of coherence and decreased depression, anxiety and stress. *Contemporary Nurse*, 45(1):114-125.

Gabrielle, S., Jackson, D. and Mannix, J. 2008. Older women nurses: health, ageing concerns and self-care strategies. *Journal of Advanced Nursing*, 61(3):316-325.

Garcia, G.M. and Calvo, J.C.A. 2012. Emotional exhaustion of nursing staff: influence of emotional annoyance and resilience. *International Nursing Review*, 59(1):101-107.

Global strategic directions for strengthening nursing and midwifery 2016-2020. 2016. *World Health Organization.*

Greishaber, L.D., Parker, P. and Deering, J. 1995. Job satisfaction of nursing assistants in long-term care. *The Healthcare Supervisor*, 13(4):18-28.

Gulack, R. 1983. Why nurses leave nursing. *RN,* 46(12):32-37.

Hill, K.S. 2009. Why do good nurses leave nursing? *Reflections on Nursing Leadership*, 35(3):1-3.

Hodges, H.F., Keeley, A.C. and Grier, E.C. 2004. Professional Resilience, Practice Longevity, and Parse's Theory for Baccalaureate Education. *Journal of Nursing Education,* 44(12):548-554.

Ihlenfeld, J.T. 2004. The Nursing Shortage. Why We Stay, Why We Leave, and Why We Never Considered Nursing as a Career in the First Place. *Dimensions of Critical Care Nursing*, 23(5):236-235.

Jamieson, L.N., Williams, L.M., Lauder, W. and Dwyer, T. 2008. The 'realities' of part-time nursing: a grounded theory. *Journal of Nursing Management,* 16(7):883-892.

Kovner, C.T., Brewer, C.S., Fairchild, S., Poornima, S., Kim, H. and Djukic, M. 2007. Newly licensed RN's characteristics, work attitudes, and intentions to work. *American Journal of Nursing*, 107(9):58-70.

Macken, L. and Hyrkas, K. 2014. Retention, fatigue, burnout and job satisfaction: new aspects and challenges. *Journal of Nursing Management,* 22(5):541-542.

MacKusick, C.I. and Minick, P. 2010. Why Are Nurses Leaving? Findings From an Initial Qualitative Study on Nursing Attrition. *MEDSURG Nursing,* 19(8):335-340.

Martin, C. 2015. The Effects of Nurse Staffing on Quality Care. *Continuing Nursing Education,* 24(2):4-6.

McMenamin, P. 2014. 2022: Where Have All Those Nurses Gone? *Nursing Practice,* 75(2):8-11.

McMurtrie, L.J., Cameraon, M., OLuanaigh, P. and Osborne, Y.T. 2014. Keeping our nursing and midwifery workforce: Factors that support non-practising clinicians to return to practice. *Nurse Education Today,* 34(5):761-765.

National Council of State Boards of Nursing 2010. *Number of Candidates Taking NCLEX Examination and Percentage Passing, by Type of Candidate*. Available at: https://www.ncsbn.org/Table_of_Pass_Rates_2010.pdf

Ruggerio, J.S. 2003. Correlates of fatigue in critical care nurses. *Research in Nursing and Health*, 26(6):434-444.

Scott, P.A., Matthews, A. and Kirwan, M. 2014. What is nursing in the 21st century and what does the 21st century health system require of nursing? *Nursing Philosophy*, 15(1):23-34.

Stewart, W. and Terry, L. 2014. Reducing burnout in nurses and care workers in secure settings. *Nursing Standard,* 28(34):37-45.

Stodart, K. 2015. A profession under stress. *Kai Tiaki Nursing New Zealand,* 21(5):15-17.

Wickett, D., McCutcheon, H. and Long, L. 2003. The nursing shortage in the United States of America: an integrative review of the literature. Commentary: an Australian Perspective. *Journal of Advanced Nursing*, 43 (4):343-345.

Wright, P.D. and Bretthauer, K.M. 2010. Strategies for Addressing the Nursing Shortage: Coordinated Decision Making and Workforce Flexibility. *Decision Sciences. A journal of the Decision Science Institue*, 41(2):373–401.