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# AJAN

**australian journal of advanced nursing**

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Australian Nursing Federation  
PO Box 4239  
Kingston ACT, Australia 2604  
tel +61 2 6232 6533  
fax +61 2 6232 6610  
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## AJAN online: <http://www.ajan.com.au>



### EDITORIAL

**Jill Iliffe**  
AJAN Editor

This edition of AJAN is the first anniversary of AJAN going free online from its own website: <http://www.ajan.com.au>. The popularity of the AJAN website in just one year demonstrates clearly the merit of the decision by the Australian Nursing Federation, the publishers of AJAN, to make AJAN freely available online.

On average over the last two issues of AJAN, 50500 manuscripts each month were downloaded from the AJAN website from across every region in the world. This reflects the increased accessibility of manuscripts and is an excellent outcome for authors and their research, exposing predominantly Australian nurse researchers and their research to the international community.

This issue of AJAN contains many interesting, challenging and relevant papers to contemporary nursing care.

Hare et al challenges nurses' capacity to differentiate delirium in hospitalised patients who are confused. If delirium is not accurately diagnosed it goes untreated or is inappropriately treated. Hare et al maintain that nurses have a pivotal role in the early detection of delirium in hospitalised patients in order to reduce associated adverse events such as falls and recommends that nurses are educated to conduct routine cognitive assessments using validated tools in all hospitalised patients in order to differentiate between acute and chronic cognitive conditions.

Using validated assessment tools to improve patient care is also the subject of research by Raja et al who tested nurses' use of nutritional screening tools to assess risk of malnutrition in hospitalised patients. Raja et al found that having validated tools available did not necessarily translate into nursing practice and that demands on nurses' time and nurses' knowledge of nutrition screening were the main barriers to the routine detection of patients at risk of malnutrition.

The expanding role of nurses working in general medical practice is the subject of two research papers in this issue of AJAN. Senior explored the barriers and enablers that nurses working in general medical practice experience in expanding their roles. She found that while role expansion was experienced by over 90% of respondents to her survey and that general medical practitioners were generally supportive of an expanded role for nurses, over half the nurses had to initiate their own role expansion. Mills and Fitzgerald explored why the uptake by nurses of some item numbers on the Medicare Benefits Schedule were greater than others and why there was such a poor uptake by nurses of the cervical screening item number. Recommendations are made that address the barriers identified by the nurses who participated in the research to the process of implementing change in their clinical practice particularly to incorporate the provision of cervical screening services.

In a paper set in an historical context, Chiarella and McInnes explore the legal and ethical frameworks that inform nursing practice and health care cultures. Examples from case law are used to illustrate the relationship between images of nursing and power and how these affect legal and moral frameworks and the realities of the workplace for nurses. Chiarella and McInnes identify five images of nursing which

emerge from case law analysis; images which they maintain are still relevant for nurses today. They argue these images have implications for the way nurses respond to critical situations and contribute to feelings of powerlessness in the workplace which affects nurses' ability to be 'heard' when patient safety is at stake.

Combating powerlessness is a sub-theme in the paper by Watson in her discussion of how leadership is assessed for nurse practitioner candidates in Australia. Watson maintains that leadership is difficult to define and often confused with management; and that the assessment of nurse practitioner candidates for leadership qualities can be subjective and inconsistent. She recommends that, until leadership is clarified with respect to the nurse practitioner role, assessment for leadership qualities should be creative and flexible and recognise that leadership qualities for nurse practitioners may be in a developmental stage.

The potential consequences of the reported world wide shortage of nurses are graphically outlined in a paper by Shields and Watson from the United Kingdom titled: Where have all the nurses gone. Shields and Watson maintain that one consequence of the nursing shortage crisis may well be the disappearance of nurses from the UK health sector as they are replaced by the less costly alternative of health care assistants and technicians. Shields and Watson urge nurses to speak out; to lobby politicians and policy makers; and to use their professional organisations to make sure there is a sustainable nursing workforce for the future.

Enhancing nursing research and nurses' appreciation of research is the subject of another two papers in this issue of AJAN. Gledhill et al reports on sampling methods used to explore older people's attitudes to sexuality. With the increasing ageing of most world wide populations, knowledge of sampling methods which successfully recruit older people is

essential, particularly if the topic is a sensitive one. Gledhill et al share their experiences and make valuable recommendations for future research in older populations. In the other paper, Broomfield focuses on the need for nurses to be able to critically read research papers. A framework is suggested to assist time poor nurses determine the quality of the research they are being asked to incorporate into their practice.

Endometrial carcinoma (cancer of the uterus) is the fifth most common cancer in women world wide and the most common gynaecological cancer. Linford and Forster explored the reactions of women to a diagnosis of endometrial carcinoma and found that women need individualised and accessible education however if they are provided with a variety of educational tools, invariably they can individualise the information they need for themselves. They recommend further research into the psychosocial care of women newly diagnosed with endometrial carcinoma, particularly the allocation of a 'primary nurse' for initial and ongoing contact.

The three international papers in this issue of AJAN all focus on improving patient care in areas which have international applicability to nursing practice. Celik et al explore critical care nurses' knowledge about the care of deceased adult patients in an intensive care unit; Erci et al explore the impact of nurses' therapeutic relationships with their patients on preoperative and postoperative patient anxiety; while Ozdemir and Akdemir examined nurses' knowledge and practice involving patients' resuming sexual activity following myocardial infarction.

After over a decade of professional pressure and political activity, the new Australian Government has established the role of Chief Nurse and Midwifery Officer. Continuing AJAN's series of guest editorial reflections on nursing, the new Australian Chief Nurse and Midwifery Officer shares her nursing story and her aspirations for the role.



## Reflections on nursing



### GUEST EDITORIAL

#### **Rosemary Bryant**

Commonwealth of Australia Chief Nurse and Midwifery Officer

Moving from the comfort zone of eight years as Executive Director of Royal College of Nursing, Australia to the position of Commonwealth Chief Nurse and Midwifery Officer in July this year stimulated me to reflect on my nursing career and the various positions I have held.

As a teenager I did not have a burning desire to become a nurse and to a degree drifted into the profession along with several other friends from school. Very soon after I commenced as a student nurse at Princess Alexandra Hospital in Brisbane, I felt instinctively I had made the right choice. The nursing course was interesting and stimulating and I found clinical practice rewarding and fulfilling. However it was compulsory to live in the nurses' home and the attendant rules associated with living-in felt petty and constraining. As a result I spent a great deal of time getting to know the Matron as I was a frequent visitor to her office!

A great deal of my clinical experience in intensive care and cardiac surgery nursing and at that time I was lucky to have two mentors who had positions of influence at Royal Adelaide Hospital and who encouraged me to further my nursing career. I was also becoming politicised and I was developing progressive social ideas. I began to explore how I could implement some of those ideas through nursing. Clinical practice was deeply satisfying but I

also felt that I wanted to have influence in the wider society and I entered a period of intense involvement in nursing politics through being elected to various positions in the Australian Nursing Federation in South Australia.

My position as Director of Nursing at Royal Adelaide Hospital gave me the opportunity to influence the development of nursing in general, and nursing education and standards of nursing care within the hospital. As well, I was able to encourage many of the more than 2000 nurses who worked in that hospital at any one time to have the enthusiasm for nursing that matched my own love of nursing as a profession.

When I moved to Victoria to take up the position of Director of Nursing Policy and Planning with the Victorian Government it felt like the logical next step in my career. In this position, I was able to use the political skills I had acquired. I became involved in health policy analysis and more importantly, sought to influence the implementation of health programs. Throughout this period I remained conscious of the basic goals I had set myself when I moved away from clinical practice, to contribute to the development of nursing and improve patient care. My personal belief is that everyone in the community irrespective of their ability to pay has the right to expect and receive the highest quality care.

Being at the centre of policy making can be intensely satisfying and at the same time the impediments to change are very frustrating. However the potential to contribute to systematic change in the health system compensates for the frustrations.

The eight years I spent as Executive Director of Royal College of Nursing, Australia gave me the opportunity to contribute to nursing and midwifery

from a national perspective and having worked at the national level for some years now, I am conversant with the enablers and barriers to advancing nursing and midwifery practice in Australia. Australia has to a degree lagged behind its international counterparts in terms of developing new and enhanced roles for nurses, midwives and allied health professionals. The potential to reconsider the role of nurses and midwives in a variety of practice settings presents an exciting opportunity.

Also during my tenure at Royal College of Nursing, Australia (RCNA) I began to participate in the international nursing community through RCNA's membership of the International Council of Nurses (ICN). In 2001 I was elected to the Board of ICN and I am currently its Second Vice President. These positions gave me an opportunity to broaden my knowledge and pursue my goal of implementing socially progressive policies at an international level. Being conversant with global nursing and midwifery trends and innovations is of great benefit as nursing and midwifery are more than ever a global workforce.

I have been the Commonwealth Chief Nurse and Midwifery Officer for a few weeks now and am feeling my way into this role. I am the first incumbent in this

new and expanded role which was a major election commitment of the Rudd Government. I am sure that it is of utmost importance that the role quickly evolves into one of the essential positions within Government.

Currently the position has no other staff other than a policy officer and executive assistant and it therefore has no management or financial responsibility. I work across the Department of Health and Ageing providing a nursing and midwifery perspective to policy work as well as advising on developments which are specific to nursing and midwifery. In particular I am currently leading a Review of Maternity Services. Development of the nursing and midwifery workforce is also a high priority as it is necessary to determine how Australia is to meet the demands for health care in the coming years. As well I shall be contributing to the Primary Health Care Strategy which is currently being developed. I shall be looking to engage the nursing and midwifery professions as the work in these areas unfolds.

I hope to do everything within my power to contribute to real structural change within the health system as I remain committed to access and equity in health care for the Australian community.



# How general practice nurses view their expanding role

## AUTHORS

### Elizabeth Senior

DipAppSc., B.SW, GradDipHealthEdandProm, MPH,  
Program Manager, Greater South Eastern Division of  
General Practice, Oakleigh, Victoria, Australia.  
esenior@gsdegp.com.au

## KEY WORDS

general practice, practice nurse, division of general  
practice, expanded role

## ABSTRACT

### Objective

The purpose of this research was to explore the barriers and enablers that nurses working in general medical practice experience in relation to the Australian Government driven expansion of their roles (nurses working in general medical practice are titled general practice nurses in Australia).

The study design was part of a Masters of Public Health course. The research was conducted as part of employment with the Greater South Eastern Division of General Practice (GSEDGP), Victoria, Australia (now called the Greater Monash General Practice Network, Victoria, Australia). The Executive Director of the GSEDGP gave permission for the study to be undertaken.

### Design

The study used an exploratory descriptive design.

### Setting

The setting was general medical practices.

### Subjects

The subjects were 22 registered and enrolled nurses working in general medical practices in Victoria, Australia (registered nurses are titled RN Division 1 and enrolled nurses are titled RN Division 2 in Victoria, Australia).

### Main outcome measures

The main outcomes measures were: attitudes of the nurse's toward role expansion; number of nurses moving into expanded roles; adoption of government expansion initiatives; and barriers and enablers.

### Results

Over 90% of the respondents identified their role as a practice nurse had expanded since the introduction of the Australian Government general practice initiatives. 86.4% were happy with the expansion of their roles and positive about government plans for further role expansion. General practitioners (GPs) were seen as supportive of the nurses' role expansion, however half the sample identified that it was up to the nurses to initiate their own role expansion.

Variables were compared with attitudes toward expansion between registered nurses and enrolled nurses; nurses over and under 40 years of age; and those who had been in general practice differing lengths of time. No significant differences ( $p > 0.01$ ) were found when any of the variables were compared.

### Conclusions

The majority of practice nurses have experienced role expansion and are positive about this. Most practice nurses indicated they were the driving force behind the expansion. Nurses felt that role expansion had improved the quality of care provided to patients and enhanced their job satisfaction. The major inhibitors were lack of physical space within general practices and lack of time. The major enablers were physical space within the general practice office for a nurse to see patients and agreement from the GPs working within the practice for the nurse to expand into new areas.

## INTRODUCTION

In Australia, the role of the practice nurse has developed in an ad hoc nature and with little public or professional recognition (Halcomb et al 2005; Watts et al 2004). In many general practices, it has been left up to individual nurses to create their own roles and responsibilities. A number of authors mention the 'paucity of Australian research on the work of the practice nurse' (Tolhurst et al 2004; Condon et al 2000; Patterson et al 2000). This study was designed to examine the expanding role of the nurse in general practice in Australia and to add to the body of research on general practice nursing.

The announcement of \$104.3 million over four years for nurses working in general practice in the 2001-2002 Australian Government budget indicated that practice nursing was to undergo an expansion of roles and a rise in profile. The Australian Government, concerned about the rise of chronic disease in the community and the shortage of general practitioners saw the broadening of the role of nurses in general practice as part of the answer to these problems. In November 2003 the Australian Government introduced the *Strengthening Medicare Initiative*, which enables some services provided by nurses working in general practice to be paid through the Medicare Benefits Schedule (MBS) without a general practitioner being present. From April 2005, the Australian Government through the *Chronic Disease Management Initiative 2001-2004*, agreed to supply funding to all divisions of general practice to enhance the role of practice nurses in the maintenance and management of chronic disease (Department of Health and Ageing 2004).

In view of these changes within general practice nursing, this research was undertaken to establish the attitudes, barriers and enablers of a group of nurses in a Division of General Practice to the expansion of their profession.

Although there is no Australian research that directly examines attitudes of practice nurses to changes to their role, through related research on general practice nursing both in Australia and overseas, a

number of potential barriers and enablers to the expansion of the role were identified. The barriers include: that general practitioners (GPs) are not always informed about the benefits of employing a practice nurse; concerns about liability issues; the fee structure of general practices (Department of Health and Ageing 2005); and concerns that the structural and organisational barriers in general practice were too great (Halcomb et al 2005; Patterson and McMurray 2003; Wilson et al 2002; Willis et al 2000a). Barriers which were identified in relation to practice nurses are: anxiety about medico-legal and indemnity issues (Watts et al 2004); that nurses were happy with their role and did not want change (Condon et al 2000); were employed part-time and had family commitments; and the nature of general practice, with the GPs being the employer of the nurses in the practice (Willis et al 2000b). Enablers include: involving practice nurses in chronic disease care in a collaborative manner gives improved health outcomes for patients (Proudfoot et al 2005; Wagner 2000; Wagner et al 1996); and, that given the right conditions, practice nurses in Australia can achieve significant role expansion (Pearson et al 2000). This has also been confirmed through overseas literature as cited in Patterson and McMurray (2003).

## METHODOLOGY

This exploratory descriptive study used a questionnaire that was designed to measure the nurses' movement into expanded roles and their attitudes toward role expansion in general practice settings. The study design was part of a Masters of Public Health course. The research was conducted as part of employment with the Greater South Eastern Division of General Practice (GSEDGP) (now called the Greater Monash GP Network, Victoria, Australia). The Executive Director of the GSEDGP gave permission for the study to be undertaken. The questionnaire was based on six semi-structured interviews conducted with seven nurses within the GSEDGP, Victoria, Australia. The interview questions and subsequent questionnaire were assembled based on published research undertaken in Australia and internationally on the expanding role of nurses in the general practice

setting (Halcomb et al 2005; Pascoe et al 2005; Wilson et al 2002; Condon et al 2000; Bonawit and Watson 1996.) The questionnaire was piloted by three general practice nurses and changes made according to their feedback. Input to the questionnaire was also sought from the Executive Officer of the Australian Practice Nurses Association (APNA); the Principal Advisor for Nursing in General Practice, Australian Divisions of General Practice (ADGP); and Program Consultant for the Practice Nurse Program, General Practice Divisions Victoria, Australia (GPDV).

A 32 item postal survey, containing quantitative, qualitative and Likert scale questions was distributed to 40 general practice nurses (both registered and enrolled) working in the GSEDGP. The introductory questions collected demographic information about the nurses. The questionnaire used a range of qualitative and quantitative measures to assess the

nurse's perception, attitudes and beliefs with regard to role expansion. Likert scales, tick boxes and open ended questions were employed to allow for collection of both qualitative and quantitative data. An ANOVA analysis was used to compare the mean ratings of the Likert scales questions.

The convenience sample of nurses was recruited through a mail-out to all nurses on the GSEDGP data base of general practice nurses. Descriptive and inferential analyses were computed using the Statistical Package for Social Sciences (SPSS) for Windows.

The resulting sample for the survey included 22 nurses currently working in general practice in the GSEDGP (response rate 55%). The majority of the sample consisted of registered nurses (n=18) and enrolled nurses (n=4). Results are given as percentage of responses.

**Table 1: Demographic information by percentage**

<b>Age</b>	<b>20-29</b>	<b>30-39</b>	<b>40-49</b>	<b>50-59</b>	<b>60+</b>	
	9.1%	13.6%	31.8%	40.9%	4.5%	100%
<b>Sex</b>	<b>M</b>	<b>F</b>				
	0	100				100%
<b>Registration</b>	<b>RN</b>	<b>EN</b>				
	81.8%	18.2%				100%
<b>Size of practice</b>	<b>Small (Solo - 1 GP)</b>	<b>Medium (2-5 GPs)</b>	<b>Large (6+ GPs)</b>			
	4.5%	33.3%	61.9%			100%
<b>Years as a practice nurse</b>	<b>0-5</b>	<b>5-10</b>	<b>10-15</b>	<b>15-20</b>	<b>20+</b>	
	27.3%	27.3%	9.1%	27.3%	9.1%	100%
<b>University or hospital trained</b>	<b>University</b>	<b>Hospital</b>				
	18.2%	81.8%				100%
<b>Post graduate qualifications</b>	<b>Yes</b>	<b>No</b>				
	54.5%	45.5%				100%

## RESULTS

Table 1 gives the breakdown of demographic information of nurses in the sample. All the practice nurses in the sample were female. The majority of nurses were in the 50 to 59 age range (40.9%) and

were hospital trained (81.8%). These figures support research cited by Patterson and McMurray (2003) who describe the typical practice nurse as female, middle aged and hospital trained (Patterson and McMurray 2003 p.46). The majority come from a

practice of six or more general practitioners (GPs) (61.9%) which is consistent with research by Pascoe et al (2005) and Bonawit and Watson (1996) who also found that general practice nurses in Victoria, Australia were most commonly employed in practices with three or more GPs.

The findings of question one to three are presented in Tables 2 to 4.

**Table 2: How do you come to be in your current position?**

	Percent
Answered job advertisement	40.9%
Invited by GP/practice staff to apply	40.9%
Word of mouth	13.6%
Other	4.5%
Total	100.0%

**Table 3: Why have you chosen practice nursing as a career?**

	Percent
Interested in the work	27.3%
Escape shift work	13.3%
Family commitments	22.7%
Other	4.5%
Multiple	31.8%
Total	100.0%

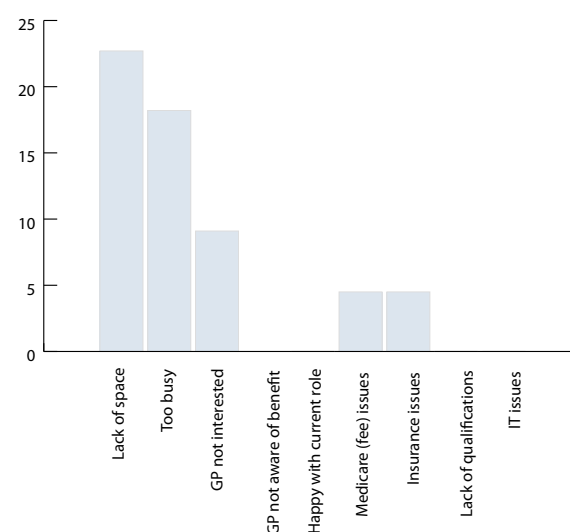
**Table 4: Do you consider that your role as a practice nurse has expanded in the last 5 years?**

	Percent
Yes	90.9%
No	9.1%

Table 2 demonstrates the majority of nurses entered practice nursing through answering a job advertisement (40.9%) or through personal invitation (40.9%). A smaller proportion (13.6%) indicated they heard about the job informally. This indicates over half of the practice nurse positions were filled through informal networks (54.5%). This finding has implications for the recruitment of practice nurses in an expanding profession with an ageing workforce. Almost one third (31.8%) of the sample indicated they entered practice nursing for a number of reasons (table 3) including interest in the work, to escape

shift work and for family reasons. Table 4 suggests that the vast majority of practice nurses consider that their roles have expanded in the last five years. Reasons for not expanding, or not expanding further are demonstrated in the graph below. Lack of space (22.7%) and busy practices (18.2%) were listed as the most common reasons.

**Figure 1: Reasons why the practice nurse role has not expanded or not expanded further**



When asked what roles were expanded, the nurses indicated that 86.4% (n=19) were now performing health assessments; 68.2% were now undertaking both wound management (n=15) and recall reminder responsibilities (n=15); 54.5% (n=12) were now performing chronic disease management duties such as *Team Care Arrangements and GP Management Plans*; 50.0% (n=11) were undertaking diabetes education and 36.5% (n=8) asthma education. Only one nurse in the region (4.5%) was performing cervical screening.

Both Halcomb (2005) and Watts (2004) suggest the role of the practice nurse in Australia has developed with little support from nursing bodies and in an unplanned manner. This is supported by the finding in question 5. When asked who within the practice had initiated the expanded role, 68.2% (n=15) of practice nurses indicated they were the main initiator. GPs were identified next at 31.8% (n=7). Question 6 asked respondents to nominate the main motivation for the role expansion which was:

- a) the nurses desire to embrace a greater role (54.5%),
- b) to provide more holistic care (50.00%),
- c) the availability of Medicare rebates (13.6%),
- d) encouragement from the Division of GP (9.1%).

Question 7 explored continuing professional development activities undertaken by the practice nurses. 100% of nurses recorded they had taken part in some form of continuing professional development in relation to the expansion of their role. The most common answer was a short course (77.3%); upskilling provided by the Division of GP (59.1%); or a university course (22.7%). This finding is consistent with Pascoe et al (2005 p.46) who found that most practice nurses involved in their survey had engaged in some form of professional development in the past two years.

Questions 8 to 13 featured a Likert scale relating to the dynamics of role expansion and Questions 18 to 25 a Likert scale relating to the nurses' attitudes and beliefs about role expansion. Questions 26 to 30 explored the nurse's perceived confidence in embracing an expanded role. Anovas were performed to determine whether significant differences in attitudes toward role expansion was evident between registered nurses and enrolled nurses; nurses over and under 40 years of age; and those who had been in general practice differing lengths of time. No significant differences ( $p > 0.01$ ) were found when any of the variables were compared.

Of those who responded to the Likert scale questions ( $n=22$ ) answers to questions which were unequivocally agreed or strongly agreed by a majority were:

- I had to initiate and drive my role forward (50.0%),
- The GPs have been very supportive of my role (77.3%),
- The practice staff have been very supportive (63.6%),
- I am happy with my expanded role (86.4%),
- At first, staff were lukewarm however they are now more accepting (35.4%),
- Enhances the quality of care (90.9%),
- Increases job satisfaction for practice nurses (86.3%),
- Reduces GP workloads (77.3%),
- Increases collaboration between GPs and nurses (81.8%),
- Increases workloads for nurses (59.1%).

Answers to questions which were unequivocally disagreed or strongly disagreed by a majority were:

- To a certain extent the role has been imposed on me (59.1%),
- Disadvantage the uniqueness of the nursing profession (63.6%).

Nurses felt confident or very confident about moving in to the following roles:

- Immunisation (81.8%),
- Health assessments for people over 75 years of age (86.4%),
- Chronic disease management Medicare item numbers: GP Management Plans and Team Care Arrangements (63.6%),
- Wound management (90.9%),
- Recall/Reminder (72.7%).

When asked if the nurses could see their role expanding in the future, 45.5% ( $n=10$ ) said yes and 13.6% ( $n=3$ ) said 'maybe'. Reasons given were:

- 'that the expanded role would require working overtime to complete chronic disease management plans',
- 'Might put on another nurse to assist with health assessments',
- 'If I were to undertake an asthma course or similar, but prefer not to as workload is already enough'.

It would appear that a number of nurses are cautious about expanding into additional areas and therefore increasing their already significant workload.

Question 16 and 17 asked if the practice nurses had ever been asked to work outside their scope of practice and if so how had they managed the situation; 72.7% ( $n=16$ ) said no, 22.7% ( $n=5$ ) said

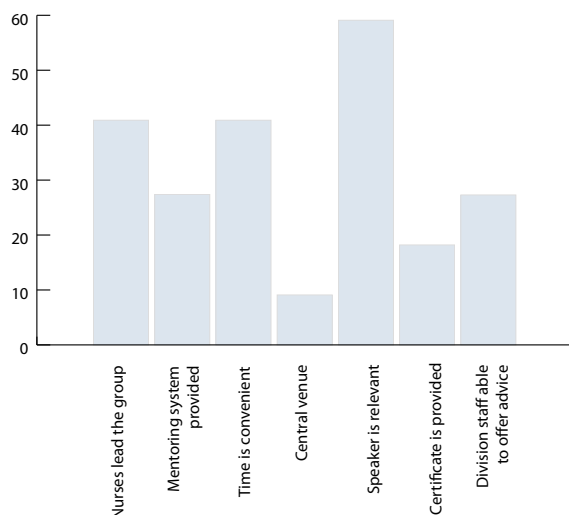
yes. Qualitative data in relation to how this was managed included comments such as:

- 'Discussion and explanation led to a resolution',
- 'Lack of training in ear-syringing',
- 'GPs were advised about the scope of practice of an enrolled nurse and are now understanding',
- 'In trying to set up duties'.

The respondents were asked how they felt about Australian Government plans to further expand their professional role in general practice (Question 31); 81.8% (n=18) either agreed or strongly agreed with the Government's plans to further expand the role. None disagreed or strongly disagreed.

In the last question respondents were asked to rank out of seven choices what they thought were important characteristics of a successful general practice nurse support network offered by a division of general practice. The results are shown in the graph below.

**Figure 2: Valued characteristics of a General Practice Support Network**



The top three issues of importance are listed as having a speaker relevant to nursing in general practice (59.1%), followed by convenient time (40.9%) and having a qualified nurse leading the support group also (40.9%).

## DISCUSSION

Over 90% of respondents identified their role as a general practice nurse had expanded over the past five years and were positive about this change. Although happy with these developments, half the sample identified it was up to them to initiate and drive the role expansion. These results indicate that nurses working within general practice who seek to expand their roles have found carving out a new role challenging. Assistance for nurses who are seeking role expansion may make this transition easier. If general practices want to access and take advantage of the Medicare item numbers for practice nurses, then providing an appropriate space in which the nurse can work; supporting and encouraging role expansion; facilitating relevant continuing education; and reorientation of the practice and practice staff, including GPs, to include the services of a practice nurse is essential. It also further supports the need for a mentoring program for nurses in general practice as identified by the Department of Health and Ageing (2005).

The two major areas of reported role expansion were health assessments of persons over 75 years of age (86.4%) and wound management (68.2%). Reasons for the identified role expansion may be related to the addition of the 'Over 75 Health Assessment' as the earliest Medicare item number for practice nurse services. This item number was introduced in November 1999 (Department of Health and Ageing 2001), giving the nurses a number of years to include this activity in their role. The wound management Medicare item number was introduced in February 2004 and also had a high uptake (Department of Health and Ageing 2008). These two item numbers allow nurses to perform a service on behalf of a GP while the GP is not present and for the general practice to receive a reimbursement from the government through Medicare for the service the nurse provides. The capacity to see a patient independently from the GP may be a reason for the high expansion rate in incorporating these activities into the practice nurse role.



Reasons for not expanding or not expanding further included: lack of space at the practice (this was also supported by the ADGP Nurse Scoping Study 2001) and that nurses were already very busy. Qualitative comments by nurses in relation to lack of expansion all centred on the need for more staff or overtime if further role expansion was to occur. Considering the Australian Government recently released a new Medicare item number that enables nurses to undertake five consultations a year with patients in the area of chronic disease maintenance (Department of Health and Ageing 2008), the issue of nursing staff who already feel they are too busy to expand their practice further is very real.

The majority of practice nurses (72.7%) had not been asked to work outside their scope of practice. Those who had (22.7%) all indicated that with discussion the situation had been resolved amicably. This result may reflect the age of the majority of nurses responding to the questionnaire with 77% over 40 years of age and 45.5% having been in general practice nursing for over 10 years.

Anovas performed on a variety of variables such as nurses under and over 40 years of age; size of practice; hospital or university education; failed to detect any significant differences. This may be due to the small sample (22 nurses), or due to the fact that the practice nurses in the GSEDGP are a homogenous group.

The results from this research indicate that general practice nurses are indeed moving into the expanded roles being initiated by the Australian Government. The research indicates that the expansion is usually driven by the nurse and often initiated with few resources to assist them. One of the main barriers identified, lack of space for the nurse to perform duties, has implications for the design of future general practices.

The high uptake of the two Medicare item numbers that allow the nurse to see patients autonomously is also an indicator that both GPs and nurses have confidence in the nurses' ability to perform consultations independently of the GPs.

Qualitative data from the questionnaire and interviews indicate that nurses are concerned about their workload. The Australian Government continues to role out initiatives that encourage nurses to take greater responsibility in general practice, however many nurses already seem to be overwhelmed with their workload. This has implications for further Medicare item numbers that are focused on the general practice nurse.

## CONCLUSIONS

The majority of nurses were positive about the expansion of their professional roles. The majority of participants have expanded their scope of practice to some extent over the last five years. Most nurses indicated they were the driving force behind the adoption of new areas of nursing in their practices and overall found that staff they work with were supportive of their expanded roles. The major inhibitor to role extension was a lack of space within general practices as many nurses did not have their own workspace. The general practice nurses in this study indicated they are very busy and taking on more roles is not always possible. Nurses felt that by expanding their roles, the quality of care provided to patients would improve and their job satisfaction would be enhanced.

## RECOMMENDATIONS

Repeat this study in other Divisions of General Practice to discover how representative these responses are.

Explore why some MBS practice nurse item numbers (such as wound management and 'over 75 health assessment') have a high utilisation rate than other Medicare practice nurse item numbers (such as nurse cervical screening) which are under utilised.

Divisions of General Practice need to work with practices to assist nurses who lack work spaces and advise new practices being built of the need for workspace for their practice nurse.

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# The changing role of practice nurses in Australia: an action research study

## AUTHOR

### Jane Mills

PhD, RN

Senior Research Fellow (NHMRC), School of Nursing and Midwifery, Monash University, Gippsland Campus, Churchill, Victoria, Australia.

jane.mills@med.monash.edu.au

### Mary Fitzgerald

PhD, RN

Professor of Nursing, School of Nursing, Midwifery and Nutrition, James Cook University, Cairns Campus, Smithfield, Queensland, Australia.

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## KEY WORDS

Australia; general practice; nurse in general practice; practice nurse; cervical screening

## ABSTRACT

### Objective

The original aim of the study was to report on the methods used to develop a new model of service delivery, namely nurse led well women's clinics. However participants identified several key barriers to an expansion of their role that had not been accounted for in either the original policy directive or in the continuing professional development delivered as preparation for their accreditation to deliver cervical screening services from a general medical practice. How the group addressed these barriers became the objective of this action research study.

### Design

This paper reports the findings from an action research study with three registered nurses working in general

practice credentialed to provide cervical screening services. Six reflective group meetings were held over a six-month time frame facilitated by the lead researcher. During the meetings a variety of creative techniques were used to stimulate discussion. The meetings were audio recorded and partially transcribed. Feedback from the concurrent data generation and analysis was provided to participants the following week.

### Setting

A regional division of general practice.

### Subjects

Three registered nurses employed by the general medical practice.

### Main outcomes measures

The barriers identified by participants in the process of implementing change in their clinical practice to incorporate the provision of cervical screening services.

### Results

There were three themes identified in the findings from this study that related to the myth of interdisciplinary collaboration in general practice. These were: nurses in general practice renegotiating their roles; identifying and negotiating gendered patterns of cervical screening; and multidisciplinary collaboration and retention of practice nurses. Another important outcome of this study that relates to change management is the role of practice champions in implementing new models of primary care.

### Conclusion

The potential role of nurses in general medical practice in Australia has broadened considerably in recent years, mainly due to Australian Government driven initiatives which reward general practitioners for employing nurses; a recognition by the nursing profession that general practice nursing is a specialist area of nursing practice; the establishment of a national professional association for nurses working in general practice; an increase in the availability of continuing professional development for nurses working in general practice; and additional Medicare Benefit Schedule (MBS) item numbers relating to general practice nursing, which gives the general practice a rebate for the services the nurse provides independently of the general practitioner. Suggestions are made that address the barriers identified by participants in the process of implementing change in their clinical practice to incorporate the provision of cervical screening services.

## INTRODUCTION

In recent times, there has been a rapid development of the role of nurses working in general medical practice in Australia. Between 2004 and 2006 the number of nurses working in general practice grew by 23% (Australian General Practice Network 2006), closely tied to a number of funding initiatives by the Australian Government (Keleher et al 2007; Porrit 2007); a recognition by the nursing profession of general practice as a specialist area of nursing practice; the establishment of a professional nursing association for practice nurses; and the availability of continuing professional development opportunities for nurses working in general practice (practice nurses). Extended roles for nurses with concomitant allocation of Medicare Benefit Schedule (MBS) item numbers have promoted greater autonomy in clinical practice for nurses and an opportunity to contribute to an increasingly multi-professional team approach to general practice services in Australia. Medicare is Australia's publicly funded universal health insurance scheme however rebates for services provided are generally only available to medical practitioners. Additional item numbers have recently been introduced which attract rebates for services provided for and on behalf of general practitioners by nurses and other allied health practitioners. The provision of MBS item numbers for practice nurses means that the general practice receives a rebate for the services provided by the practice nurse. This assists in offsetting the cost of employing the practice nurse.

One of these initiatives has enabled nurses in general practice to undertake cervical screening. This paper reports on the findings from an action research study undertaken with nurses in general practice who had been recently credentialed as cervical screeners. The original aim of the study was to report on the methods used to develop this new model of service delivery, namely nurse led well women's clinics. However participants identified several key barriers to an expansion of their role that had not been accounted for in either the original policy directive or in the continuing professional development delivered as

preparation for their accreditation to deliver cervical screening services from general practices. How the group addressed these barriers ultimately formed the body of this action research study which was limited by a six-month timeframe. Despite the short time frame, some interesting issues were identified by the group which exposed the cultural underbelly of general practice and which can be used to inform the ongoing process of reform in general practice in Australia.

## RESEARCH METHOD

Action research is a research methodology that typically begins with a concrete problem in practice (Carr and Kemmis 1986). Cycles of observation, critical reflection, action and evaluation lead to a modification of actions in the form of action plans, which are subject to ongoing cycles of modification until the original problem is addressed (McNiff and Whitehead 2006). In this study, the authors acted as facilitators for a reflective group of co-researchers. A series of questions, adapted from Winter and Munn-Giddings (2001), were used to stimulate reflection on issues of concern agreed to by the group:

- What else is having an impact on this issue in the practice?
- How else may this problem be viewed?
- Why do others behave the way they do?
- How do I feel about this and what do these feelings tell me about what is going on?
- What else do I need to find out before making a judgement?

In 2005 the Division of General Practice where the study was undertaken recruited six nurses to undertake a continuing professional development program that led to credentialing to undertake cervical screening. These nurses were invited to join an action research group which was convened in 2006. The attrition rate was 50%, resulting in three participants attending the majority of reflective group meetings. Ethics approval was granted by the James

Cook University Ethics Committee. Each participant signed a consent form prior to participating in the study and was free to leave the study at any time.

Six reflective group meetings were held over a six-month time frame facilitated by the lead researcher who is an experienced mentor. Each meeting lasted between two to three hours, with participants and the research team sharing a meal at the beginning of the meeting. During the meetings a variety of creative techniques were used to stimulate discussion, review participant's activities and plan actions as an outcome of the meeting. Some of the creative techniques used were: scrapbooking; poster making; sharing of journal entries; postcard prompts to express feelings; and brainstorming using 'butchers' paper and coloured pens. The meetings were audio recorded and partially transcribed. Feedback from the concurrent data generation and analysis (Strauss and Corbin 1990) undertaken by the research team was provided to participants the following week. Analytical feedback took the form of a newsletter, emails and postings on a secure internet blog where participants were encouraged to post comments and discuss both the themes and the actions they had committed to undertake.

## FINDINGS

There were three themes identified in the findings from this study that related to the myth of interdisciplinary collaboration in general practice. These were: nurses in general practice renegotiating their roles; identifying and negotiating gendered patterns of cervical screening; and multidisciplinary collaboration and retention of practice nurses.

### **Nurses in general practice renegotiating their roles**

General practitioners (GPs) are often referred to as small business owners as well as clinicians, a situation that Riley (2004) has identified as a potential source of stress for GPs. This duality of roles also creates issues for the other health professionals who work alongside GPs, particularly nurses in general practice (Halcomb et al 2005). Participants in this study identified that even though they received in principle support from their general

practitioner employers to become credentialed cervical screeners, that support did not necessarily lead to a smooth transition to incorporate cervical screening into their clinical practice.

The group was challenged to ask what else might be having an impact on the business of general practice that would discourage the initiation of nurse led well women's clinics. Participants immediately responded that time equals money. The MBS item number rebate at the time was inadequate to compensate for the amount of time they wanted to spend with clients undertaking a well women's health check as opposed to undertaking the task of cervical screening as a stand alone activity.

From this, the group decided they needed to raise awareness of the value of nurse led well women's clinics beyond the MBS item number rebate, while accounting for the power differential that exists between nurses and doctors (Roberts 2000), particularly in general practice where the GP is also often the nurses employer. The way this was addressed was by identifying a 'champion' within the general practice team who could support the nurses to argue their case. Practice managers were thought to have potential for this role, however in the experience of the participants another male GP who was also employed and who had a positive experience of the extended role of nurses working in general practice in the United Kingdom, was able to help establish a nurse led well women's clinic in the face of initial opposition from the majority of the general practice team.

### **Negotiating gendered patterns of cervical screening**

For participants in this study, female GPs provided considerable resistance to nurses extending their role to include cervical screening. Historically cervical screening has been seen as the province of female GPs, 'turning their gender into an advantage rather than a disadvantage' (Pringle 1998 p.194). Participants shared the experience of conflict arising from female GPs using techniques of power and control. As a group we asked the questions: 'how else might this problem be viewed and why do



others behave the way they do?’ Using this technique enabled the group to think calmly through of the work of female GPs which is often quite different to that of male GPs (Britt et al 1996). The strategy for action that the group agreed on was to engage with the female GPs accentuating the potential for solidarity and debating the consequences of confrontation.

### **Multidisciplinary collaboration and retention of practice nurses**

Confronting the barriers that the nurses experienced trying to implement change in their practice to include cervical screening led the group to reflect on the question of: ‘what is collaborative practice and who makes up the team?’ Some of the characteristics participants identified which made them feel part of a team were: open communication, referral pathways, nurse led clinics, recognition of knowledge and skills, flexibility of working hours and opportunities for continuing professional development. Teamwork and collaborative practice that includes the delegation of care, rather than the delegation of tasks, is also clearly identified in the literature as desirable in the general practice workplace (Watts et al 2004; Patterson and McMurray 2002).

Between 2004 and 2006 the number of nurses working in general practice grew by 23% (Australian General Practice Network 2006). Concomitantly, employment opportunities also increased providing more options for experienced nurses in general practice to change their employment if they did not feel they were valued or working as part of a team. This was the experience of one of the participants in this study who moved on because her need for an expanded clinical role was not being met. Pivotal to her decision about where to go next was the response she received from prospective employers to a question she asked at interview regarding her ability to undertake cervical screening and well women’s health checks.

## **DISCUSSION**

This paper argues that the significance of this very small action research study, which is limited by its lack of generalisability and small sample size, is that

if the reader has a sense of ‘fit’ between their own experience and the findings; if the findings ‘work’ to explain the problems faced; if the findings are openly ‘modifiable’; and if they are ‘relevant’ to nursing in general practice in Australia; then the findings are trustworthy enough for the implications to be considered (Glaser 1978).

Following this work the authors offer the following challenge to multidisciplinary teams working in general practice. If there is an ethos in the practice that espouses a commitment to develop community centered services that improve access to, and quality of, services by including nurse consultations then the following questions (Box 1) should be used to stimulate open discussion within the team prior to implementing new models of practice.

### **Box 1: Questions for general practice teams to ask prior to implementing a new model of practice**

1. To what extent are the new nursing services viewed as an economic initiative and/or a client centered service? What are the consequences of that view on service delivery?
2. What opportunities are there in this practice for formal and informal multi-professional discussion and strategic planning?
3. How has this service (cervical screening in this instance) been provided in the past? Who will be most affected by this change? How do these people feel about nurses undertaking this role? How are they going to adjust together to provide a client centered service?
4. What will be different about this service? What resources will be needed to ensure nurses can provide this service?
5. How will the team know that the initiative is successful?
6. How will members of the team maintain their competence and knowledge in this area of practice?

Each general practice will generate a different set of answers to these questions and in truth the questions are more important than the answers because they require people to reflect and to understand the situation in which they work.

Participants’ experiences of the difficulties in trying to implement change in their practice, even though the changes were endorsed by the Australian



Government, serves to highlight potential problems in implementing changes that are funding driven and not piloted in the first instance. There is no literature that discusses outcomes from general practice reforms in Australia that include the introduction of specific MBS item numbers for practice nurses. How such changes are managed in clinical practice is vital to ensure their success and improved client access to services. As such this study could be considered a valuable pilot for potentially a larger study taking in wider geographical boundaries and other established MBS item numbers.

Another important outcome of this study that relates to change management is the role of practice champions in implementing new models of primary care. Participants identified that practice managers could be a helpful conduit between themselves, practice principals and other members of the general practice team when developing strategies to effect change in their role. Continuing professional development activities for practice managers that focus on communication and team building would assist in developing their leadership potential and capacity to implement change.

## CONCLUSION

Practice nursing in Australia is under the spotlight as a means to improve access to primary care services however the current funding model of general practice relies on task allocation, which limits and controls the type of care nurses are able to provide. Complicating this is the genderisation of medicine that results in work such as women's health services becoming the business of female general practitioners and a source of potential conflict within the general practice team should nurses want to provide similar services. Implementing a change in the role of the practice nurse requires careful thought. The ad hoc

introduction of MBS item numbers without trial has failed to identify potential barriers that could be overcome given a more systematic and planned approach.

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# Nurses' descriptions of changes in cognitive function in the acute care setting

## AUTHORS

### Malcolm Hare

RN, BSc (Nursing) (Honours),  
Nurse Manager, Informatics Support, Fremantle Hospital;  
Research Associate, School of Nursing and Midwifery,  
Curtin University of Technology, Western Australia  
malcolm.hare@health.wa.gov.au

### Sunita McGowan

RN, M.Sc (Nursing),  
Director Nursing Research and Evaluation, Fremantle  
Hospital; Adjunct Research Fellow, School of Nursing  
and Midwifery, Curtin University of Technology, Western  
Australia

### Dianne Wynaden

RN, RMHN, PhD,  
Associate Professor, School of Nursing and Midwifery,  
Curtin University of Technology; Research Consultant  
(Mental Health), Adjunct Senior Research Consultant,  
Department of Nursing Research, Evaluation and  
Informatics, Fremantle Hospital, Western Australia

### Gaye Speed

RN, B.AppSc (Nursing), PGradDip HAdmin,  
Nurse Consultant Clinical Improvement, Fremantle  
Hospital, Fremantle, Western Australia

### Ian Landsborough

RN, RMHN, M.Ed,  
Lecturer, School of Nursing and Midwifery, Curtin  
University of Technology, Western Australia

## KEY WORDS

confusion, delirium, quality nursing care, dementia,  
cognitive functioning, clinical audit

## ABSTRACT

### Objective

To describe nurses' documentation of cognition and behavioural changes in patients in acute care settings. Hospitalised patients often present with multiple co-morbidities including declining levels of cognitive functioning and this is particularly so for older people.

Many older people will experience a delirium during hospitalisation. While prevention or prompt management of delirium is paramount to providing quality care, research suggests that health professionals regularly fail to differentiate between delirium and other cognitive changes in hospitalised patients.

### Design

Four audits of progress notes were completed over a four week period at a Western Australian tertiary hospital to identify, quantify and categorise cognitive and behavioural changes in hospitalised patients. This paper describes data on nurses' documentation collected in the course of those audits. On four consecutive Thursdays, the medical records of all patients identified by nursing staff as being confused were reviewed. Where no definitive cause for the confusion was documented, the case notes were examined for evidence of risk factors to determine a probable cause.

### Setting

A Western Australian tertiary hospital.

### Subjects

The medical records of all patients identified by nursing staff as being confused.

### Main outcome measures

Documentation in patient medical records of a patient having cognitive or behavioural changes or being confused; use of a cognitive screening tool; or a diagnosis of delirium.

### Results

A total of 1209 patients were surveyed over the four audit days with 183 patients (15%) being identified as confused. 'Confusion' was the most common descriptor used by nurses to describe cognitive and behavioural changes; in many cases it was the only term used. Many of these changes were indicative of delirium. Little use by any health professional of cognitive screening tools was found.

### Conclusion

Cognitive and behavioural changes are a common problem in hospitalised patients who are elderly. The use of the term confusion to describe a range of cognitive and behavioural changes is a barrier to accurate identification of delirium, which is often the first indicator of serious underlying illness.

## INTRODUCTION

The international literature is critical of the widespread lack of recognition of delirium (Hustey et al 2003; Inouye et al 1999; Flacker and Marcantonio 1998). Nurses' inability to recognise delirium was illustrated by a recent study on nurses' level of knowledge of delirium and associated risk factors. The study reported that only 42% of nurses scored 70% or better on delirium knowledge questions and only 3.5% of nurses scored 70% or better for knowledge of delirium risk factors (Hare 2006). It has also been suggested that knowledge deficits may be perpetuated because health professionals consistently and routinely document cognitive and behavioural changes under the encompassing term 'confusion', which does not allow for qualification or quantification of significant changes in a patient's functioning (Milisen et al 2002). This practice continues even though prevention, or early intervention, for delirium has been shown to improve outcomes for this group of patients (Inouye et al 2005a).

Delirium presents as an acute short-term disturbance of consciousness lasting from a few hours to a few months characterised by disorganised thinking, perceptual disturbances and inattention (American Psychiatric Association 1999), and is often the first or only presenting sign of an underlying medical problem (Meagher 1998). Delirium causes cognitive and behavioural changes in a patient that fluctuate over the course of the day, can usually be attributed to a physiological cause and/or the use of substance(s), and is not better explained by a pre-existing or evolving dementia (American Psychiatric Association 1999). Three main variants of delirium exist: hyperactive, hypoactive and mixed. The hyperactive variant involves hyper-vigilance with associated agitation and hallucinations (American Psychiatric Association 1999). Patients experiencing the hyperactive variant are more likely to have their condition recognised and receive early intervention due to their presenting behaviours (Breitbart et al 2002; O'Keeffe 1999). Patients with the hypoactive variant often present as lethargic, drowsy and have difficulty focussing attention, and this form is more

likely to go unrecognised. The mixed variant fluctuates between features of both.

In older people, delirium is a predictor of mortality and morbidity, but delirium and its underlying causes are commonly under-diagnosed and as a consequence under-treated (Douglas et al 2005; Cole 2004; Inouye et al 1999; O'Keeffe 1999). This lack of recognition occurs in 25% of cases (Young and George 2003) increasing to 87.5% when the patient has a pre-existing dementia (Milisen et al 2002). In addition, delirium in elderly patients often results in a decreased level of functioning post discharge from hospital, which impacts on the individual's future quality of life (Inouye et al 1998). Estimates suggest that delirium is present in up to 62% of hospitalised orthopaedic patients who are elderly (Olofsson et al 2005) rising to as high as 89% in patients who have a pre-existing dementia (Fick et al 2002).

Nurses are well placed to identify, assess and document cognitive and behavioural changes as they spend more time with patients than most other health professionals. This is especially important for older patients, who are at high risk of developing delirium (McCusker et al 2003; O'Keeffe and Lavan 1996; Cole et al 1994), and whose care would be enhanced by prompt and accurate assessment and documentation of cognitive and behavioural changes which may be indicative of a serious underlying medical problem warranting urgent further investigation. However as previously noted, nurses' documentation of cognition is reportedly poor (Inouye et al 2005c). To determine whether the standard of documentation in a Western Australian teaching hospital was consistent with that reported in the literature, data on descriptors used by nurses to describe changes in cognition and behaviour were collected in the context of a point prevalence audit for delirium (Speed et al 2006).

## DESIGN

The Chair of the Human Research Ethics Committee was informed of the proposed audit and recommended that the audit be registered as a quality improvement activity. The audit was planned for one day in each of four consecutive weeks to provide a large sample size

and to facilitate inter-rater checking, as some patients were present during two or more audits. On each of the audit days, nurse coordinators on the medical and surgical wards at the hospital were asked to identify patients who displayed confusion, disorientation, fluctuating behaviours or who were behaving in an unusual manner. To identify patients who may have the hypoactive presentation of delirium, information was also sought about patients who appeared withdrawn, quiet or depressed. All inpatient records of the identified patients were then reviewed.

### DATA COLLECTION METHODS

Initially, a comprehensive review of the literature was conducted to identify the common causes, risk factors and presenting symptoms associated with delirium. Based on the literature review, the audit tool was piloted from the progress notes of several patients prior to the audit. The tool collected demographic information and data on behavioural descriptors identified during the literature review. Behavioural descriptors gathered from progress notes during the pilot were included as a tick-box list, with space for the auditors to add additional descriptors. Data were also gathered on whether the cognitive and behavioural changes fluctuated or were consistent, whether the patient had a pre-existing, confirmed diagnosis of dementia and whether there was evidence that the patient was confused on admission. All data were derived exclusively from the patients' progress notes. The five auditors were senior nurses, and inter-rater reliability was established by consensus in data collected during the pilot.

When a patient was identified with 'confusion', evidence was then sought from the patient record for any definitive medical diagnosis associated with the behaviour, such as pre-existing dementia, delirium or an organic disorder. Any data that assisted in confirming the cause of the behaviour, for example, 'delirium secondary to pneumonia', were also recorded. The audit team also looked for evidence of the use of formal cognitive assessment tools, such as the Mini Mental State Examination (MMSE) (Folstein et al 1975), Delirium Rating Scale (DRS)

(Trzepacz et al 2001) and Confusion Assessment Method (CAM) (Inouye et al 1990). Lastly, the audit team recorded behavioural descriptors associated with confusion if they were present in the nursing or integrated progress notes. Where information obtained suggested that the patient was likely to be suffering a delirium, the variety of descriptors used to document the patient's behaviour was identified (Speed et al 2006).

### RESULTS

Data from the audit showed that 183 (15%) of 1209 patients were identified by staff as being confused. Of the 183, 132 (72%) had documented cognitive and behavioural changes that were deemed to be associated with the presence of a delirium, while in the remaining 51 (28%) patients their behaviour was typical of their established dementia or organic disorder. Seventy-seven (58%) of the 132 patients deemed to have a delirium were documented as being confused on admission. Fourteen (11%) of the 132 had no documentation of their cognitive status on admission.

Of the 132 patients with cognitive and behavioural changes suggestive of delirium 78 (59%) were females and 54 (41%) were males. The age range was from 45 years to 95 years with a mean age of 79.9 (SD 10.21) years. A majority of these patients (n=78 59%) had been admitted from home, 34 (26%) from a hostel, 14 (11%) from a nursing home and 6 (4%) transferred from other hospitals. Eighty-one (62%) patients were admitted as medical inpatients, 32 (24%) as orthopaedic inpatients, 11 (8%) as surgical inpatients and 8 (6%) were vascular inpatients.

Only 48 (36%) of the 132 patients with documented behavioural and cognitive changes consistent with delirium had a diagnosed delirium documented in their patient record. The records of the remaining 84 (64%) patients had descriptions of cognitive and behavioural changes suggestive of delirium but no formal diagnosis of delirium had been recorded. This may have occurred in part because the delirium was overlooked due to the presence of an established dementia (n = 58).

A total of 364 descriptors (mean 2.76 per patient, SD 1.568) were found in the documentation audit. The number of descriptors in the notes ranged from one (n=33) to eight (n=1). Notably, one in eight cases (12.88%, n=17) had the term 'confused' as the only descriptor. The most common descriptors were 'confused' (n=99), 'disoriented' (n=54) and 'agitated' (n=46) (see table 1).

**Table 1: Descriptors of cognitive and behavioural changes**

Descriptor	Count	Percent
Confused	99	27.20
Disoriented	54	14.84
Agitated	46	12.64
Hallucinating	22	6.04
Drowsy	21	5.77
Plucking/pulling	17	4.67
Physically aggressive	15	4.12
Wandering	14	3.85
Vague	13	3.57
Verbally Abusive	10	2.75
Noisy	9	2.47
Forgetful	8	2.20
Insomnia	8	2.20
Lethargic	8	2.20
Non compliant	7	1.92
Fearful	5	1.37
Angry	4	1.10
Anxious	2	0.55
Threatening	2	0.55
Total	364	100.00

Only 43 (32.5%) of the 132 patients had evidence of the use of MMSE and only one (0.7%) had a DRS completed.

## DISCUSSION

The rate of delirium in hospitalised patients recorded during the audits (11%) is consistent with international rates (Milisen et al 2002; Dupplis and Wikblad 1999; Lynch et al 1998). Furthermore, the rates of undiagnosed delirium are also similar to that reported in the literature (Hustey et al 2003; Milisen et al 2002). Although delirium was not formally documented as a diagnosis in all of the 132 patients,

behavioural and cognitive changes consistent with delirium were recorded in the patients' records.

Many patients in this study had a pre-existing dementia. These patients are a vulnerable group, and are at high risk of developing delirium. Assessment and knowledge of baseline data on the patient's usual level of cognitive functioning is vital for early recognition and investigation of delirium, and crucial to their future quality of life (Rigney 2006). Health professionals should routinely assess elderly patients' cognitive and behavioural status, with the same priority afforded to the measurement of other vital signs, as recommended by Flaherty et al (2007). This would facilitate the early recognition of delirium, reducing adverse outcomes such as falls (O'Keeffe 1999), mortality, morbidity, length of stay and other long term or permanent sequelae (McCusker et al 2003; Inouye et al 1999).

This study provides additional confirmation of nurses' lack of knowledge of delirium and its associated risk factors and has provided a basis for ongoing research in this area. A further strength was the large audit sample size, which allowed for confirmation of inter-rater reliability, as some patients were audited more than once over the four weeks. A limitation of the study was the reliance on the nurse coordinator to identify confused patients. This is an important limitation, given that nurses are poor at identifying delirium (Inouye, Leo-Summers et al 2005) and some confused patients were likely to have been unreported.

## CONCLUSION

Nurses have a pivotal role in the accurate assessment of cognition and early detection of delirium in acute care settings and therefore the reduction of associated adverse events, such as falls (O'Keeffe 1999). Nevertheless, cognitive assessment has not been routinely included as a key component in nursing curricula and therefore has not translated into nursing practice.

To facilitate early recognition of any change in cognition and behaviour, it is recommended that nurses are educated and trained to conduct routine



cognitive assessment using validated tools in all hospitalised patients and to differentiate between acute and chronic cognitive conditions. Improved knowledge and assessment techniques will lead to improved documentation.

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# Nurses' views and practices regarding use of validated nutrition screening tools

## AUTHORS

### Rubina Raja

MSc, Accredited Practising Dietitian, Southern Health, Victoria, Australia.

Rubina.Raja@southernhealth.org.au

### Simone Gibson

BSc; GradDipDiet, Accredited Practising Dietitian, Southern Health, Victoria, Australia

### Alana Turner

BNutrDiet, Provisional Accredited Practising Dietitian, Southern Health, Victoria, Australia

### Jacinta Winderlich

BNutrDiet, Accredited Practising Dietitian (APD), Southern Health, Victoria, Australia

### Judi Porter

PhD, Accredited Practising Dietitian (APD), Southern Health, Victoria, Australia

### Robyn Cant

MHSc, Accredited Practising Dietitian (APD), Monash Institute of Health Services Research, Monash University, Victoria, Australia

### Rosalie Aroni

PhD, Monash Institute of Health Services Research; Monash University, Victoria, Australia

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## KEY WORDS

nutrition screening, nurses, nutrition assessment, malnutrition, hospitalisation, Australia

## ABSTRACT

### Objective

To explore nurses' views and practices regarding use of the Malnutrition Screening Tool (MST) and the Malnutrition Universal Screening Tool (MUST) in acute hospital wards.

### Design

The study used a combined methods design with both qualitative and quantitative techniques including focus groups and survey of patient records.

### Setting

Four medical or surgical wards in three hospitals within a single health service in Melbourne, Victoria, Australia.

### Subjects

Registered nurses (n=54).

### Main outcome measures

Audit results and themes from narrative data.

### Results

The initial screening rate was 25% and 61% on spot audit of two wards using the MUST, with only 4% (2/47) of patients screened in two wards using the MST. Application of screening was limited by priority of other nursing duties, a nurse's skill in use of a tool, and interpretation of patients' weight status. Some nurses applied individual judgment rather than a tool to assess malnutrition risk. After nurse education and support over four months in wards using the MUST, compliance improved to 46% and 70%, Barriers were identified in use of either tool.

### Conclusions

Implementation of evidence-based screening tools within patient admission procedures does not automatically translate into nursing practice. Nurses' time and nutrition screening knowledge were the main barriers to efficient screening. This suggests a need for induction programs for new staff and increased feedback to nurses regarding screening practice. A nutrition screening team might provide leadership and advocate for such screening practice and enable development of an audit cycle, including regular performance reporting, to increase compliance.

## INTRODUCTION

Evidence of malnutrition amongst Australian hospitalised patients shows that up to half may be malnourished (Banks et al 2007; Lazarus and Hamlyn 2005).

Malnutrition increases the risk of complications during hospitalisation and prolongs recovery (Alberda et al 2006; Covinsky et al 1999) and therefore should be treated with intensive nutritional therapy (Kruizenga et al 2005). However as Elia et al (2005) found, 60-85% of hospital patients at risk of malnutrition are not identified in the absence of a screening program. Nutrition screening is important to help locate these patients.

An increased focus on evidence-based practice has seen the introduction of validated tools, management pathways and plans in recent years. However such tools with high validity are of little use if health professionals are unaware of their context. Little information is available about how clinicians actually implement 'best evidence' or, for example, what impact nutrition screening has on nursing practices especially in those settings where nurses are responsible for screening patients as part of routine nursing care (Bailey 2006). Nutrition screening tools should comply with several criteria to be effective (Elia et al 2005; Bond 1998; Green and McLaren 1998). A tool should be quick and easy for nurses to use, be easy to interpret, and acceptable to patients. Ferguson et al (1997) suggest that a lack of information regarding implementation of such tools limits their use and further development.

### Background

Routine nutrition screening by nurses had been implemented since 2005 in some acute wards within a single Melbourne health service using either the FBBC-Malnutrition Screening Tool (MST) developed in Australia (Ferguson et al 1999), or the Malnutrition Universal Screening Tool (MUST) developed in Britain (Todorovic et al 2003). The MST was incorporated as the eighth section of eleven in a multi-disciplinary referral and discharge-planning chart which nurses completed as part of normal admission duties. This

was a nursing initiative in two wards. The tool is based on two questions regarding recent weight loss and about current food intake related to appetite. Results are scored between 0 to 5. Patients who are scored  $\geq 2$  are considered at nutrition risk and are referred to a dietitian for further assessment.

The MUST was selected and introduced in two other wards by dietitians as a five-step flow-chart which forms part of nurses' admission documentation. It scores risk from low (score of 0) to high (a score of 2 or more). It requires a record of anthropometry, that is, body measurements to use as an index of physiological development and nutritional status (Oxford Dictionary 2005), followed by a documented management plan for all patients based on the scores obtained. Both tools are expected to prompt dietetic referrals for further assessment. The time taken for screening may be between two to ten minutes.

Both tools offer alternate ways to score the patient if weight information is not available. The MST has been validated for Australian populations with a sensitivity and specificity of 93% and good convergent and predictive validity (Ferguson et al 1999). MUST has been shown to have a sensitivity of 61%, a specificity of 76% (Kyle et al 2006), concurrent validity with other tools, and good predictive validity overseas (Stratton et al 2004; Kondrup et al 2003).

From 2005-2006, routine audits of patient records regarding nutrition screening in the wards mentioned showed low compliance. These results led to questions about the impact of the two nutrition screening tools on nursing practice and the barriers or enabling factors experienced by nursing staff. The aim of this study was to explore nurses' views and practices regarding use of the Malnutrition Screening Tool (MST) and the Malnutrition Universal Screening Tool (MUST) in acute hospital wards.

## METHODS

Both quantitative and qualitative data collection and analysis formed the research design (Creswell 2003). Screening was examined in two wards using MST (Wards A and B) and two wards using MUST (Wards C and D). Dietitians undertook audits of all

inpatients' nutrition screening records in each ward on one day. They assessed tool completion rates and also identified patients that would be categorised as at-risk using the respective ward's screening tool. Patients were excluded if they had not been admitted for at least 24 hours. Following this, a convenience sample of nursing staff participated in a focus group in each ward. Each group was convened by a dietitian independent of the respective ward staff and trained to conduct focus groups. A prepared schedule included initiating questions about nurses' screening training, ward policy on screening, and the nurses' experience of the relevant nutrition screening tool. Each discussion of up to one hour was audio recorded and transcribed verbatim. The narratives were open-coded using NVIVO software (QSR International 2000) for data management and the identified themes examined for deviant cases by several of the authors (Minichiello et al 1995).

To track possible changes in screening completion rates, the audits of inpatients' records over 24 hours were repeated for each ward four months later. During the four months in wards using the MUST, as part of a clinical audit cycle, dietitians had reported on the audit results to ward managers, provided ward nurses with informal support and encouragement and additional education sessions to assist with increasing compliance. Further, clinical nurse educators had provided supervision and also education for nurses. During the four-month evaluation period, quality assurance staff commenced regular audits on all nursing screening paperwork in Ward C including the MUST. However in wards using MST, there was no focused feedback or nurse education about nutrition screening.

## RESULTS AND DISCUSSION

The characteristics of wards surveyed and their patients are given in table 1.

**Table 1: Characteristics of hospital wards and patient admissions over one month**

Hospital ward characteristics				Patient demographics		
Unit	Ward capacity (beds)	Principal admission categories	No. of admissions	Length of stay (days) (SD)	Age Years (mean) (SD)	
<b>MST</b>						
Ward A	General medical	26	Investigation /treatment of medical conditions requiring short stay; outliers	144	6.0 ±5.5	67.8 ±19.1 (range 27-96)
Ward B	General medical	32	Infections, diabetes-related disorders, stroke	106	7.7±7.1	66.2 ±18.0 (range 17-97)
<b>MUST</b>						
Ward C	Neurology/ Gastroenterology	51	Stroke/head injuries/ elective gastro-surgeries/ liver and gallbladder disease, treatment of gastrointestinal complaints	319	3.8 ±4.6	59.7 ±17.9 (range 18-96)
Ward D	Gastroenterology-	23	Elective gastro-surgeries/ liver and gallbladder disease, treatment of gastrointestinal complaints	89	5.0 ±6.0	57.3 ±21.3 (range 19-93)

### Participants

Thirty-five nurses from wards using the MST and 19 from wards using the MUST participated in one of five focus groups. Almost all nurses were female

(89%) and were registered nurses, except for four who were enrolled nurses. Each was rostered through team nursing, which aimed at one nurse to every four patients. Their professional experience ranged from

six months to over 20 years and almost all nurses (85-89%) had attended a nutrition screening training session at least once, although some had learned informally from other staff. As all the nurses reported having used the respective nutrition screening tools, this qualified them to give their views.

#### Extent of use of screening tools

Although ward policy required nutrition screening forms to be included in every patient's record and screening of all patients within 24 hours, there was a wide range of compliance, as shown in table 2.

In wards which used the integrated MST, almost all patients' records held a screening tool in both audits, however in the MUST wards, initially only 75-83% of patients had the screening tool included in their patient record. This limited screening practice, because the form was a prompt necessary for nurses to screen a patient. By the second audit, the 'MUST' wards also showed excellent compliance with the incorporation of the tool in the patient record (90-100%).

**Table 2: Nutrition screening instrument forms (MST and MUST) filed as part of patient record and completion rates<sup>†</sup>**

	Nutrition screen form included in patient record		Nutrition screen form completed	
	Audit 1 n (%)	Audit 2 n (%)	Audit 1 n (%)	Audit 2 N (%)
<b>MST</b>				
Ward A	24/24 (100%)	26/26 (100%)	1/24 (4%)	1/26 (4%)
Ward B	22/23 (96%)	29/32 (91%)	1/23 (4%)	1/32 (3%)
<b>MUST</b>				
Ward C	36/48 (75%)	37/41 (90%)	12/48 (25%)	*19/41 (46%)
Ward D	19/23 (83%)	23/23 (100%)	14/23 (61%)	*16/23 (70%)

<sup>†</sup>Spot audits of all inpatients' records (admitted for at least 24 hours) in each ward. Audits were undertaken at intervals of >4 months, between November 2006 and August 2007.

\*Significant increase in screening rate between audits: Ward C:  $\chi^2 = 39.130$ ;  $p < 0.001$ ; Ward D:  $\chi^2 = 67.033$ ;  $p < 0.001$ . No significant change in Wards A or B.

Screening application was poor in the initial audits on wards using the MST, with only one (4%) in each ward fully completed. Screening remained negligible in the second audit. In wards using MUST, mean initial screening rates improved significantly by 9-21% but remained less than expected at 46% and 70%. Bailey (2006) reported good initial screening rates in a stroke ward (87%) and in a gastro-surgical ward (73%) soon after implementation of MUST. After refresher training sessions were provided, the

screening rates for the stroke ward improved to (94%) but had fallen for the gastro-surgical ward (16%), possibly due to staffing pressures. One reason for the changes demonstrated in the current study could be the ongoing education and support provided to the MUST wards between the two audits.

Results of reassessment of all patients in the audits by dietitians using the wards' relevant screening tool are shown in table 3.

**Table 3: Identification of patients at nutrition risk**

Tool used for screening	Patients identified by nurses		Patients identified by dietitians	
	Audit 1 n (%)	Audit 2 n (%)	Audit 1 n (%)	Audit 2 n (%)
<b>MST</b>				
Wards A and B	2/47 (4%)	1/58 (2%)	26/47 (55%)	25/58 (43%)
<b>MUST Wards</b>				
Wards C and D	9/71 (13%)	8/64 (13%)	17/71 (24%)	17/64 (27%)

These results indicate that the actual proportion of at-risk or malnourished patients was far greater than that identified by the nurses' nutrition screens. For example in the second audit, 27% of patients in Wards C and D were found to be at risk when all patients were assessed by a dietitian compared with the results of nurses' nutritional screening (13%). This concurs with other research which has shown that nutrition screening practice rates were less than expected and incomplete (Bailey 2006; Cooper 1998). Our study indicates that patients at risk were being missed because of low compliance with a process of nutrition screening by nurses using either of two tools.

### Screening practices

Themes identified from the narrative data provided some explanations for low screening rates. The main reasons were competing nursing duties; a lack of awareness of the evidence-based practice of nutrition screening; and nurses' perception that professional judgement was just as useful as the screening tools in identifying patients at risk. In table 4, actual quotations are given to summarise nurses' perceptions of issues as they applied to the use of both the MST and MUST.

**Table 4: Nurses' views of nutrition screening practice using the MUST and MST**

THEME	Malnutrition Screening Tool (MST)	Malnutrition Universal Screening Tool (MUST)
(a) Competing nursing duties: priority given to nutritional screening task	[For] new admissions [it] needs to be filled out straight away. ...Yes because you can't write notes without that. [Our] nurse unit manager completes the form. I didn't know that you fill it out for everyone.	Patient care and documentation of your patient care is the highest [priority]. ...it kind of determines what is happening with that patient.  And it's just hard. We already have got the [falls] risk screen and the continence screen and the pressure area screen and it's just more...
(b) Use of professional judgement to assess nutrition status	Most of our patients are elderly, you can automatically tell straight away.  You can just look at people and know if they are at risk of malnutrition. You just look at their body and what they are eating.  And if they're a bit thin too, I tend to do it... Especially if they live alone.	Do you use it for every patient? No, not every patient.  Oh, if there doesn't seem to have been a nutritional problem, I haven't seen the need for it.

### Priority of nursing tasks

Although most nurses considered that nutrition care was important, due to time constraints and a patient's needs, they prioritised nursing admission and care tasks as shown in table 4 (a). Tasks required by the medical staff in treating patients were rated as high priority. For example, observation charts and medication charts were more important, requiring priority over all risk screening tasks (eg falls, wounds and nutrition). Thus, workplace pressures operated to make nutrition screening a lower priority.

### Professional judgment

There was a lack of recognition that the concept of screening requires the inclusion of all patients. As described in table 4 (b), some applied judgment based on weight status to exclude patients who 'looked healthy'. If a patient appeared underweight they were more likely to question them about recent weight change and undertake a nutrition screen using the prescribed form. If a patient appeared obese, many nurses were reluctant to discuss or measure their weight. Nurses had not considered that obese

patients might also be at risk of malnutrition. Thus, there was little shared expectation of routine nutrition screening for all patients using either tool.

There was a large difference between the number of patients perceived to be at risk of malnutrition by nurses and those identified by dietitians when every patient was screened using the relevant tool. Other researchers have also reported nutrition screening tools as being more reliable than personal judgment in identifying hospital patients at risk (Davison 1996) and that only half malnourished hospital patients

were identified by nursing and medical staff in the absence of routine screening (Elia et al 2005; Kruizenga et al 2005).

The current results indicate a need for further nursing staff education about the purpose and correct use of nutrition screening tools.

### Barriers to nutrition screening

When asked about the ease of use of the screening tools, nurses suggested there were additional barriers (see table 5).

**Table 5: Nurses' views of barriers to nutrition screening**

THEME	Malnutrition Screening Tool (MST)	Malnutrition Universal Screening Tool (MUST)
(a) Ease of use of form	It doesn't take long at all. Just a few seconds. [commenting about the tools' questions] They are simple. They are good.	It looks a bit daunting when you first get it. ...you open it up and five steps, and that.  Well, it was just generally when I went through it that you just get stuck.
(b) Communication with patient	...you have to interview the patient, you have talk to the patient. [yeah] You know ... it's just the time, you know?  ...a lot of the times we can't fill any - a lot of this out ... until we speak to the relatives, or we sometimes get an interpreter.	Well, if this needs doing and all the information is not there...Yeah, so you have to chase it.  You try to ask them questions, like what was your weight before you came in, and they might not even know what that is.
(c) Need for training	This is quite straight forward, so it's a sore point. ... So I don't think we need like, intensive training.  We know what we are reading; you don't have to do training to do that.	...it takes a while to understand the whole concept of it.  Personally, I had to do the training twice to get it.  It took me a good month to get used to it, and like, I've been here 3-4 months.

### Ease of use of forms

The timing of completion of the two tools differed and this seemed to relate to the extent of assessments required by either tool as shown in table 5 (a). The shorter MST was viewed as being easy to use by simply questioning a patient about their weight change and appetite. More of the nurses using the MUST initially did not find it easy to complete. The MUST was often left for subsequent nursing shifts to complete. Participants indicated that the need for measurement and estimation of body mass index seemed onerous. Notwithstanding this, the audit data

showed that higher screening rates were achieved using the MUST. This suggests that factors other than perceived ease of use are involved. There was no overall agreement about whether a stand-alone tool such as the MUST, or an integrated tool such as MST, was preferable.

### Communication with patients

A lack of verbal communication with patients was identified as a further factor limiting completion of both tools as demonstrated in table 5 (b). The two tools differed here. For the MUST, alternative methods of



anthropometric measurements or subjective criteria could be used to complete nutrition screening and so comprehension of English, while advisable, was not mandatory. However, for MST verbal communication about weight change was important in order to accurately score the patient. Nurses described their frustration in frequently being dependent on family members or interpreters to provide this information. Nurses regarded communication difficulty with patients, including confused patients, as a delaying factor in completion of both tools.

### **Need for nurse training**

As reported in table 5 (c), nurses stated they found the MUST difficult to use until they gained competence through training and experience. Conversely, some nurses did not think they required training in use of the MST and yet they poorly understood the essence of an evidence-based assessment. Knowledge and skills were two of 12 key domains identified as enabling behaviour change in implementing evidence-based practice (Michie et al 2005). This highlights the importance of nurses' education about malnutrition and nutrition screening and that ongoing education programs are required to prompt universal screening. Audit results for wards using the MUST which also provided training and support of nurses by senior nurses indicated that screening rates improved over time.

### **Other barriers**

Various other reasons for low screening rates may be drawn from the results, including differences in ward demography, workloads, individual work ethic and values, number of temporary staff, staff supervision, or patterns of staff meetings. The level of feedback provided by a dietitian for completion of a tool also varied by ward or according to staff levels. Some nurses felt that, rather than screening patients and referring by risk score screening, a verbal referral to a dietitian based on individual assessment was preferable because this alerted the dietitian to a need for intervention more quickly. In essence, nurses deemed filling in forms as less important where there were other mechanisms in place for referral to dietitians.

### **Accountability for screening**

Both of the evidence-based tools in use produce a nutrition risk score. Although obtaining objective data and scoring nutrition risk was part of the time constraint explained by some nurses using the MUST, the MST, which was less involved, still resulted in low completion rates. This suggests that implementation of an evidence-based screening tool as a patient admission procedure does not automatically translate into efficient nursing practice, no matter how simple the tool. Individual nurses' competence in nutrition screening needs to be developed within the parameters of the local context.

Elia et al (2005) recommend health care facilities should have a transparent policy about nutrition screening to routinely recognise and treat malnutrition. A solution to low screening rates might be offered by a properly implemented and supported organisational policy to enforce screening by delegating accountability to a nutrition screening team who could act as leaders. A team comprising nursing, dietetics and quality department staff might arrange a cycle of training together with regular audit and feedback (such as is required for other organisational benchmarks) to inform nurses of compliance and to build capacity to incorporate nutrition screening into everyday nursing practice. Data collected as part of a cycle of improvement might demonstrate greater accountability for patient care. Bailey (2006) concluded that use of such a team to provide training, support, practical help and leadership assisted implementation of the MUST in wards in Britain.

### **STUDY LIMITATIONS**

The authors were unable to evaluate whether at risk patients were referred independently of screening by nurses. Although a low rate of such referrals was observed, the audits were not designed to collect these data. Secondly, as the focus group participants were self-selected it could be argued that this would limit the generalisability of the results, particularly as the views of non-participant nursing staff were unable to be accessed. However these results do

enable discussion of the barriers to and enablers of the use of screening tools.

## CONCLUSIONS

Many factors were identified as influencing rates of nurse screening for malnutrition risk. Nutrition screening knowledge and skills were the main barriers to efficient screening. It appeared that the level of support and education offered to nursing staff (rather than characteristics of the individual screening tools) were the main influences on tool completion rates. This illustrates a necessity for induction programs for new staff, continuing education and increased feedback to nurses regarding screening practices to ensure all patients with malnutrition are identified. The use of a nutrition screening team to act as leader and also advocate for screening practice and to develop a cycle of audit and feedback (including regular performance reporting) is recommended to achieve evidence-based practice. More research is needed to identify the effect of screening on patient outcomes. Nursing and dietetics departments need to develop and maintain open communication about these topics.

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# Exploring women's reactions to a diagnosis of endometrial carcinoma: a pilot study of Australian women

## AUTHORS

### Wendy Linford

BN, RM

Associate Unit Manager, Gynaecology/Oncology Unit, Mercy Hospital for Women, Heidelberg, Victoria, Australia. wlinford@mercy.com.au

### Della Forster

RN, RM, DipAppSci, BHealthSci, Mmid, PhD

Senior Research Fellow, La Trobe University, Melbourne, Victoria, Melbourne, Australia. d.forster@latrobe.edu.au

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## KEY WORDS

cancer nursing, endometrial cancer, gynaecological cancer, women's views, semi-structured interviews, pilot study.

## ABSTRACT

### Objective

Endometrial carcinoma (cancer of the uterus) is the fifth most common cancer in women world wide and the most common gynaecological cancer. Each woman confronted with such a diagnosis will respond in different ways, as will their family and friends;

therefore each will vary in their supportive needs. This study aimed to acquire some insight into the initial impact of a diagnosis of endometrial carcinoma on women and factors relating to support for them.

### Design

Semi-structured interviews were used to collect in-depth data on women's views. Interviews were audio-taped. Demographic data were collected prior to interview by structured questionnaire.

### Setting

The setting was a tertiary women's hospital in Melbourne, Victoria, Australia.

### Subjects

The subjects were seven women with newly diagnosed endometrial carcinoma.

### Main outcome measures

Interviews were transcribed verbatim and coded into themes.

### Results

The findings include an acceptance of the diagnosis and adequate friend and family support. Some women experienced initial denial from immediate family members; for others the diagnosis led to a new appreciation of life and values. Most women received adequate education regarding endometrial carcinoma, while others used varied means including the internet to find further information. Health care facilities for rural versus urban women; the means by which women were told of their diagnosis; and appropriate follow up and support, were issues that arose which require further exploration.

### Conclusions

The needs of a woman diagnosed with endometrial carcinoma will vary between individuals. Further research in the area of psychosocial care for women newly diagnosed with endometrial carcinoma would be of value. Women need individualised and accessible education. If women are provided with a variety of educational tools, they can individualise the information they need for themselves.

## INTRODUCTION

Endometrial carcinoma is the most common gynaecological malignancy in the developed world with approximately 1400 new cases diagnosed each year in Australia and approximately 260 deaths as a result (Queensland Institute of Medical Research 2005). The median age at diagnosis is 65 years (Lancaster and Nattress 2005) and an average of one in eighty women are diagnosed by the age of 75 years (Robertson 2003). In Victoria each year there are approximately 350 women diagnosed with cancer of the uterus (The Cancer Council of Victoria 1999). At the Mercy Hospital for Women (MHW) in Victoria, Australia, 84 women were diagnosed with endometrial carcinoma in 2005 and underwent surgical treatment (Admission Register Gynaecology/Oncology Unit MHW).

The most common presentation of endometrial carcinoma and the main reason for its early detection is postmenopausal vaginal bleeding (Otto 2001). About 80-90% of women diagnosed with endometrial carcinoma will have noted an abnormal vaginal discharge (Barakat et al 2003) and approximately 15% of all postmenopausal women presenting with abnormal bleeding will have endometrial carcinoma (Barakat et al 2003). Other signs can be: irregular, excessive or prolonged premenopausal bleeding; pyometria, causing a yellow/watery vaginal discharge; accretion of blood in the uterus: and/or pain in the pelvic regions (Otto 2001).

There is no cost effective and accurate public health screening device to assist early detection of endometrial carcinoma, therefore women are encouraged to seek immediate medical attention if any of the above symptoms occur (Robertson 2003). Once diagnosed with endometrial carcinoma treatment usually includes surgery (Creasman et al 2001) and may involve radiotherapy, chemotherapy and hormone therapy (American Cancer Society 2005).

No Australian literature was identified that discussed the psychosocial issues associated with a new diagnosis of endometrial carcinoma. Ersek et al

(1997) found depression and anxiety often follows an ovarian cancer diagnosis. A study of women newly diagnosed with breast cancer by Landmark et al (2001) found the 'life and 'fight for life', and 'stubbornness of attitude' emerging as common themes. Luker et al (1996) found that women with recently detected breast cancer see their diagnosis as a 'challenge', while Watson et al (1984) found that women were more likely to have feelings of denial toward their breast cancer prior to their surgery and this assisted them through the initial process. In general, high levels of psychological distress and adjustment problems can be seen in newly diagnosed cancer patients regardless of their prognosis (Lev et al 1999).

The aim of this pilot study was to gain an initial understanding of how women responded to a diagnosis of endometrial carcinoma. Specifically the study endeavored to understand how life changed for the women. Each woman was asked about their symptoms, about seeking help, how this diagnosis affected their family and friends and what support was available to them during this time. The study also explored whether the support offered to the women was adequate and how the health care system could have further assisted them.

This study was approved by the Research Ethics Committee at Mercy Health and Aged Care Victoria, Australia.

## METHODS

### Sample and Setting

MHW is a public tertiary women's hospital. All women (private and public) admitted to the gynaecology/oncology ward with operable endometrial carcinoma between 1 March and 30 June 2006 were invited to participate in the study. A sample size of approximately 15 women was set based on other similar research and in order to reach data saturation. Women were approached five to seven days after their primary surgery. This was to firstly to ensure the exact diagnosis was known; and secondly, to allow women some time to adjust and recover from their surgery. The study was explained, questions answered and deliberating

time given. Willing participants signed consent forms and completed demographic questionnaires prior to interview. Women were excluded if they were inpatients at a time the researchers were unable to interview them; they could not speak English; or were unable to give informed consent as assessed by the research team.

### Data collection

Demographic data were collected by a brief self administered survey and semi-structured interviews were used to obtain the main data for analysis.

The interview comprised a series of eight questions initially. After piloting two questions were added. The question areas were: symptoms and action; initial diagnosis reactions; views on life and their future; and support (educational and emotional). Health system limitations/barriers were also explored.

Interviews were undertaken by the same researcher and took 20 minutes on average (although the longest was 45 minutes) and were undertaken in a private location. Interviews were audio-taped and field notes recorded later. Demographic data were entered onto an Access Database (Microsoft Corporation 2000) and descriptive statistics used to describe the data. Interviews were transcribed verbatim and coded into themes. Both investigators read through all transcripts, came up with themes independently, and explored areas where there was no consensus. In all cases agreement was reached. Illustrative quotes have been used to help describe the data. Pseudonyms (with actual ages) are used for all participants.

## RESULTS

Recruitment was limited by the researchers having a 12 month time span for this project and that fewer women than anticipated presented for surgery for endometrial carcinoma during that period. Sixteen women were approached during March and June 2006, with seven of these women agreeing to participate. A further two were missed as a result of earlier than expected discharge from hospital. Two others were ineligible as one of the researchers was on leave during their admission. Relatives were

not excluded from the interview if the participant wanted them to stay, although the researchers did not seek to have a relative present. One woman's husband attended an interview with her and a daughter and granddaughter attended another woman's interview.

The average age of participants was 65 years, (range 49-78). Five women were married or widowed, one was single and another separated/divorced. Three women currently lived with their husband/partner, three lived alone and one woman lived in a religious community. Four had completed secondary school to year 12, and three attended but did not complete secondary school. Two women had completed a degree, one an apprenticeship/traineeship and another had completed a diploma. The average household income before tax was \$40,000(AUD). Four women said a pension was their main income. Two women were born in the United Kingdom; the others were born in Australia. Six women were of a Christian religion. No women currently smoked tobacco. One was an ex-smoker of five-six years. Two of the seven women had never been pregnant.

Of the seven women interviewed, six had had spotting of blood or an episode of a heavy 'period type' bleed. Two of these women said their discharge was somewhat normal for them due to menopausal changes and the altering of their hormone replacement therapy (HRT), with the general feeling of being unwell being the reason for investigations. One participant had spotting of blood then a watery discharge two months later. Another participant stated her only symptom was spotting of pale, watery discharge. Five women investigated their symptoms straight away, contacting their local general practitioner (GP) and were then referred to a specialist. One woman did not investigate her symptoms until about a year later, while another waited three months until her next planned appointment with her doctor.

Six out of the seven participants were told they had endometrial cancer over the phone; three of these women were alone at the time. One participant was told during a consultation at her gynaecologist's rooms.



### Women's responses to their diagnoses

There was a range of responses from the women when asked how they felt about their symptoms being due to endometrial carcinoma. One participant found it too hard to describe; another felt she was prepared for it, due to already being told there was a chance of it being cancer, stating:

*Well I think I was prepared for it because you know he said that there was a chance, and he really reassured me - but you still sort of have that feeling (Emma 73 yrs).*

*I was shocked because it wasn't something that I was expecting because it was just an incidental thing that the doctor did (dilation and curettage) (Lola 49 yrs).*

The above participant presented with a general unwell feeling which was firstly thought to be due to a gallbladder complaint. A dilation and curettage was performed only due to the long time span of taking hormone replacement therapy.

One participant stated she felt upset by the news, but was more worried she may die during the operation from a complication due to her other health problems. Another stated the word cancer "is a frightening one" (Kate 52 yrs). Two women felt they took the information very well. One said:

*Probably going to Melbourne was a bigger issue than having endometrial cancer, um, ah, how did I feel, well I guess I think I coped with it reasonably well, more so than the people around me (Lola 49 yrs).*

The women were asked to identify any changes to their views regarding life and the future since their diagnosis. Three women stated there had been no change to their views at all. One said:

*Not really, I think when you get to our age, you want to make the most out of what you have got left anyway (Alice 74 yrs).*

Three women felt it had changed their outlook on life. One woman suggested it had helped her to "look on the bright side" (Judy 78 yrs), while another said her son told her that his whole outlook on life had changed:

*He said, um, it makes you realize that what you worry about is nothing when something like this comes out... material things aren't anything are they, it doesn't matter (Kate 52 yrs).*

Quotes from the participants that suggested a change in existential views included:

*When I go back I think I'll have to go through a lot of things (laugh), and sort some things out, get rid of stuff that I don't need and so forth, but ah, it does make you think a bit more, yeah (Mavis 74 yrs).*

*Ah yes, life's very precious, your whole outlook changes... I mean, do what you want to do if you can do it, do it! (Kate 52 yrs).*

### Responses of family members and friends

The general reactions of family members toward the participant's diagnosis were concern, upset and worry. Some examples include:

*He [husband] was very upset... but he remained positive for my sake, um, and he helped me though, he was very, very good (Lola 49 yrs).*

*Well I, I didn't want them to be worrying about it when, ah, when I'd be worrying about it - I didn't really know what anyone thought, I didn't want, I said I don't want to talk about it, I don't want to hear anything about it (Judy 78 yrs).*

Three participants felt the initial reaction of one of their relatives: son (n=2); brother (n=1); and sister (n=1) was state of denial and not coping, stating:

*He obviously didn't think it was anything anymore than what I had before... I think he blocked it out (Kate 52 yrs).*

*My brother was probably in denial, both brothers went quiet (Dina 56 yrs).*

Another said:

*She [sister] just didn't want to admit that it was cancer (Emma 73 yrs).*

Some positive outcomes were also evident with two participants stating family relationships seemed stronger after the diagnosis than before, a husband of one woman quoting:



*I think it's brought them [the family] together a bit... there's a bit more contact and communication now (husband of Alice 74 yrs).*

There were mixed responses from friends of the participants. One woman stated what a shock to her friends it was, while two participants said how positive and understanding their friends had been. One woman said her friends expressed their concern, while another found out later that her friends were devastated, but did not initially inform her of this. Supportiveness was a definite theme throughout the interviews with quotes such as:

*They've been very supportive, very good and everybody's been very good really, very supportive - our friends have been absolutely brilliant (Kate 52 yrs).*

Family and friends proved to be the main emotional support for six of the participants. One woman said:

*They've been pretty good actually, haven't they, the family, family and friends, they have all been good, my main support obviously - very strong emotional support (Alice 74 yrs).*

Two women stated they also valued support from their church while another participant considered herself to be her own main support.

#### **Responses to supports received/perceived**

The research also explored the adequacy of the support the hospital provided. All women felt the hospital had provided support to them through this journey. Four participants could not think of any additional support the hospital could offer other women in the future. One woman suggested better diagrammatic information and more time available to talk to doctors, while another firstly stated there was nothing else the hospital could have offered her to help her through her diagnosis, however was still unsure about one thing:

*But I guess my big question is with menopause, how do you know what's an abnormal bleed? Or how do you know what's abnormal? - I guess for me it was the watery discharge, and I mean the doctor said*

*you've got a cyst, it looks like a cyst, I went ok, um, not having had one before, um I didn't think anything more of it (Dina 56 yrs).*

Regarding the type and suitability of endometrial carcinoma education the participants received, there were mixed responses. Five of the seven women received a booklet published by the Anti-Cancer Council of Victoria (1999). Two women stated this was enough and did not seek any further information. One woman said:

*No, that was enough (laugh), you hear about it at any rate you, you don't want to hear more than you have to (Mavis 74 yrs).*

*The pamphlet was standard information which is fine but it, it doesn't have a voice, you know, you need to be able to ask questions (Lola 49 yrs).*

Another said:

*It's very hard when, you know, you're in the country and your getting all the information from here (Emma 73 yrs).*

Four women stated their consultation with the oncologist helped to inform them, with diagrams also aiding this process. Three women sought out more information, with two searching on the internet. One of these women stated:

*I went on the internet as well, had a look to see, yeah, I mean I wanted to know, but I didn't want to know too much either you know, I suppose that sounds strange, I just wanted what I could handle for that time sort of thing (Kate 52 yrs).*

Three women found talking to friends who either used to be nurses or had undergone hysterectomies themselves to be a useful source of data. One participant did not want any information; when asked if she was given a pamphlet regarding endometrial carcinoma she said:

*No, and I don't want it...No, I didn't want that before I come down here and I wouldn't have been reading it anyway, hidden it in a book somewhere - before I came down all you got on the television and the radio was diabetes and cancer, and I shut it off, you're at home*

*but when you know that you've got to come, seemed to be on everyday, every hour (Judy 78 yrs).*

One woman stated she did not receive enough information and did not have time to seek out more due to her speedy admission. She stated:

*Just incidental discussions with people, it's been incidental information rather than anything written or diagrammatic (Lola 49 yrs).*

When asked if she is going to look for more information when she gets home she said:

*Well, not when I go home 'cos (sic) I know I won't find it, in the bush, it's just not there - well there might be something in the library, gee the books are pretty old (laugh) (Lola 49 yrs).*

Women were asked to describe any services they thought were lacking in the health care system. Five thought there was nothing more the system could have done to help them through their journey so far; another who was told of her diagnosis over the phone stated:

*Not really, the only thing was the way I was told I suppose, that's the only...but I'm not blaming anybody, it must be a very difficult thing to do, and I don't know how you would do it (Kate 52 yrs).*

Another woman from a rural area said:

*I think you're much more likely to have assistance down here that you can get in rural and regional Victoria - rural Victoria needs um, a great deal of funding and medical facilities, and it also needs ah, a wide range of highly skilled professional, medical people...the access to people is, is a problem (Lola 49 yrs).*

## DISCUSSION

The aim of this pilot project was to gain some preliminary understanding of how a diagnosis of endometrial carcinoma affected women and their families, the support that was needed both educationally and emotionally, and to start exploring areas of the health care system these women felt were lacking. Health care providers can only provide

appropriate care and adequate and holistic support if there is an understanding of women's needs.

Although a limitation of the study is its small sample size, the women in this pilot were similar in many ways to what was reported in the literature, including the variety of presenting symptoms and the range of response times in seeking medical attention. While we can not generalise, it may be that further education regarding endometrial carcinoma is needed in the community.

A person's response to a cancer diagnosis will always be individual and the women in this study demonstrated this. However most were told of their endometrial carcinoma diagnosis over the phone, often without support people present. Given that reactions are likely to vary and that many women may need support when hearing their diagnosis, an improved strategy may be to at least give the woman an option regarding how and where they are informed of their results.

Mor et al (1994) suggest that relatives of people who receive a cancer diagnosis experience similar if not greater negative psychological responses than the patient themselves. Concern, upset and worry was how women perceived their family and friends' reactions, despite the fact that most stated their main support arose from these sources. The uncertainties and fears experienced by a person newly diagnosed with cancer are likely to enhance the need for social support (Dunkel-Schetter 1984). Three women in our study felt family members could not cope and that they were in denial initially, a response identified by Watson et al (1984) in women diagnosed with breast cancer. Lewis (1986) found there is evidence that a cancer diagnosis in one family member causes existential concerns in the other family members and that tension occurs in the early diagnostic and treatment period within family units. These responses did not seem very evident within this project. Endometrial carcinoma information leaflets specifically detailed for close acquaintances of the affected women may be a tool to assist them through this whole process and further enable them to provide support for the women diagnosed.

Ersek et al (1997) reported that some women had more positive views on life after a diagnosis of ovarian cancer, including a new appreciation of life and adoption of a 'live for the moment' philosophy (Ersek et al 1997). In our study three women stated their views on life and their future did not change during their initial diagnosis stage, whereas three others reported it had challenged their outlook, saying their whole views on life changed.

The research was particularly interested in whether women's informational needs were met and found mixed responses regarding this issue, with some women requiring more information and others seeking information from a variety of sources. It is important women have access to appropriate and adequate educational information and this can only be achieved by understanding what information is appropriate and in what context and tailoring tools based on this. A 'take home' kit with a range of educational information from diagrams, booklets, details of support groups available and appropriate websites may help ensure women have a thorough knowledge base available to them if they wish. A follow up phone call by an oncology nurse after the gynaecologist/oncologist consultation to discuss further questions prior to their admission to the ward could also be of benefit.

Most of the women stated they could not think of any additional services the health care system could provide to assist them through their diagnosis of endometrial carcinoma. One woman suggested further resources were needed in regional Victoria and that there was a lack of medical professionals and lack of educational resources at the local library. While this is only one woman's view and relates to one regional area, it is important to note.

This study was a small pilot with acknowledge limitations. The research was limited by the number of women available to recruit to the study as well as by the time constraints of the project. The research aim was to gain some preliminary understanding of how a diagnosis of endometrial carcinoma affected women and their families and to explore whether the particular health system was meeting the needs

of this group of women. While these data are not generalisable they do provide insight into the lives and views of these women's views and feelings following a diagnosis of endometrial cancer.

## RECOMMENDATIONS

Given that the needs of a woman diagnosed with endometrial carcinoma will vary between individuals, further research in this area of psychosocial care of women newly diagnosed with endometrial carcinoma would be of value. In terms of practice, it is important to be aware that women need individualised and accessible education. If women are provided with a variety of educational tools, they can individualise the information they need for themselves. It is possible that for women who are newly diagnosed with endometrial carcinoma, the allocation of a 'primary nurse' for initial and ongoing contact may be a method worthy of exploration. This very small pilot study suggests a lack of facilities and medical staff in rural areas which may lead to inequities in access. This is a topic that requires further exploration and consideration.

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# Nurses' knowledge and practice involving patients' resuming sexual activity following myocardial infarction: implications for training

## AUTHORS

### Leyla Özdemir

PhD, RN

Lecturer, Hacettepe University School of Nursing,  
Medical Nursing, Turkey.  
leylac@hacettepe.edu.tr

### Nuran Akdemir

RN

Professor, Hacettepe University School of Nursing,  
Head of Medical Nursing, Tukey.

## KEY WORDS

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## ABSTRACT

### Objective

The main aim of the study was to determine the knowledge level of cardiology nurses in relation to sexual and other lifestyle adjustments required of their patients following myocardial infarction (MI).

### Design

This descriptive study conducted structured interviews using a data collection questionnaire.

### Setting

Cardiology nurses working in cardiology clinics and outpatient clinics of university hospitals in Turkey.

### Subjects

The study was completed with 108 nurses.

### Main outcome measures

Nurses' knowledge and practice pertaining to sexual adjustment issues including changes in sexual activity and the correct sexual practices following MI were measured.

### Results

Accurate and appropriate responses by nurses to the questions regarding sexual activity in post-MI patients were rare, ranging from 0.9% for nine out of 15 questions to 23.1% for one out of 15 questions. However unmarried nurses' knowledge about the factors influencing patients' sexual activity and post-MI changes affecting their sexual activity was higher than for married nurses. The findings indicated that almost all the nurses (99.4%) did not provide sexual education to post-MI patients due to a lack of knowledge and skill and their perception that sexual issues belong to a patient's private domain.

### Conclusions

This study expanded the knowledge base regarding the knowledge and skill that should be required for nurses when providing sexual education. The data highlighted nurses' neglect and avoidance in addressing sexual issues due to inadequate knowledge as well as cultural factors. The results clearly suggest the importance of addressing topics regarding sexual life during basic nursing education and continuing education programs.

## INTRODUCTION

Due to the fact that ischaemic heart disease is the major cause of death and generates the greatest number of hospitalisations with increasing health care expenses, the management of ischaemic heart disease should receive high priority in national health policies and preventive health care programs. A major concern in both developing countries with a young population and developed countries with an older population is the mortality related to ischaemic heart disease (Arntz et al 1998). According to the data from the World Health Organization (WHO), the mean 28-day case fatality rate from episodes thought to be due to acute myocardial infarction (MI) is formidably high, at 32.8% for men and 53.3% for women, increasing with age (Evans et al 2001; Marques-Vidal et al 2000). A comparison of Turkey with other European countries in terms of MI mortality indicates that the mortality rate among men in Turkey is second to Baltic countries and Russia; among women the mortality rate also holds second place following the Ukraine (Turkish Cardiology Society 2000a).

Along with the fear of recurrence of a heart attack, survivors of MI can experience physical, psychological, and social difficulties owing to the numerous restrictions in their usual daily routine. Some limitations may be imposed on doing housework, climbing stairs and shopping. A variety of rehabilitation strategies are used to cope with these restrictions which include symptom management, medication information, lifestyle changes, psychological factors and physical activity. The literature suggests that the issue of 'when to resume sexual activity' was ranked by patients as most important among the items of physical activity. Sexual issues cause great concern to patients because of a potential decrease in the frequency of their sexual activity, sexual interest, sexual satisfaction, and sexual performance (Jaarsma 2002). Patients fear coital coronary, perceived harmful effects of sexual activity to the heart, and symptoms such as shortness of breath, anxiety, guilt, loss of libido and impotence (Timmins and Kaliszer 2003; Jaarsma 2002; Friedman 2000; Taylor 1999).

Normal signs of sexual arousal which include increased heart rate, increased respiration and sweating can easily be misinterpreted as cardiac symptoms although research has reported the estimate of the relative risk of MI after sexual intercourse was insignificant (Rerkpattanapipat et al 2001). This increased risk appears to be restricted to the two hour time period following sexual intercourse. Beyond that time window, there was no increased risk of MI after sexual intercourse (Drory 2002; Kimmel 2000). Despite the low risk of severe symptoms, low incidence of recurrence of MI associated with sexual intercourse and the fact that the majority of (22%-75%) post-MI patients suffer from sexual dysfunction; the sexual issue is rarely addressed by health professionals (Rerkpattanapipat et al 2001; Friedman 2000).

## LITERATURE REVIEW

Relevant literature which clarifies the importance of sexual rehabilitation, the risk of recurrent MI caused by sexual activity, nurses' responsibility regarding the issue, and reasons for nurses' avoidance of this subject is summarised below.

### **The need for sexual rehabilitation: a component of cardiac rehabilitation programs**

Cardiac rehabilitation aims to improve and optimise patients' physical, emotional, vocational and social recovery so they may preserve, or resume when lost, their normal activities of daily life after a cardiac event (Warrington et al 2003; WHO 1993). Sexual activity should be considered as one of life's normal elements regardless of chronic diseases and age. However studies indicate that many cardiac rehabilitation programs neglect sexual issues for cardiac patients and simply include exercise, diet, stress-modification, smoking cessation and vocational rehabilitation (Zwisler et al 2005; Taylor 1999; Gohlke and Gohlke-Barwolf 1998). The need to expand cardiac rehabilitation content to include a patient's sexual activity results from the difficulties expressed by post-MI patients about resuming and attaining satisfaction from sexual activity. Most post-MI patients exhibit concern about the high



possibility of death after a cardiac event itself and also about the potential danger to them of resuming sexual activity (Taylor 1999; Wiklund et al 1984).

In this sense, sexual rehabilitation should include information regarding resumption of sexual activity; a graded exercise tolerance test to measure a patient's confidence; monitoring medications for side effects; encouraging counselling for distressed couples; reducing the patient's partner's fears; discouraging goal-oriented sexual activity (the expectation of high-level physical sexual performance rather than emotional and psychological satisfaction); and information about the safety of sexual activity (Taylor 1999). The literature suggests that sexual activity can resume 3-6 weeks after stabilisation in a familiar place with mild temperature and with a familiar partner and position. The key principles are for couples to relax and go slow in re-establishing the sexual relationship with emphasis on renewing both their romantic as well as their physical intimacy. Counselling regarding the recommendations for pre-sexual activity suggests that patient should be well rested and that food and particularly alcoholic drinks should be avoided for 1-3 hours before sexual activity (Friedman 2000; Taylor 1999).

#### **The risk of MI triggered by sexual activity**

The literature further suggests that oxygen requirements and energy expenditure during sexual activity are moderate; heart rate values during intercourse are similar to those found in daily life; sexual activity in most post-MI patients is associated with a low risk of cardiac complications; and coital death among post-MI patients is rare (Stein 2000; Drory et al 1995). Moreover, the evidence indicates that peak heart rate during exercise testing is higher than the peak heart rate during all phases of sexual intercourse (Drory et al 1995).

For the last three decades researchers have tried to ascertain the risk of MI triggered by sexual intercourse. Kimmel's (2000) study determined that the relative risk of MI after sexual activity is approximately 2.5 during the two hour period following sexual activity. However when the basic MI risk for

society is considered, not all incidences of post-coital MI should be attributed to sexual activity. Because this baseline risk during any two hour period is low; the absolute increase in risk due to sexual activity among high-risk individuals is only 0.1% annually compared with 0.01% for low-risk individuals (Kimmel 2000). An enhanced physiological response to coitus with an extramarital partner and in an unfamiliar place is reported to account for 75% of sudden coital deaths (Stein 2000; Drory et al 1995).

#### **Nurses' responsibilities for educating post-MI patients about sexual activity**

The scope of knowledge and skill required to address the multifaceted elements of cardiac rehabilitation is broad, hence the need for a wide range of multidisciplinary input to include the cardiologist, nurse, dietitian, exercise physiologist, occupational therapist, physiotherapist, psychologist and social worker (Stokes 2000). The responsible health professional for sexual education and counselling in cardiac rehabilitation programs varies at the organisational level from country to country and may be led or directed by the cardiologist, nurse, occupational therapist or other members of the health team (Shell 2007; Stokes 2000).

Nurses are often in a position to conduct an assessment of patients which should include a full sexual history. While almost all nurses consider sexual assessment, evaluation, and counselling should be a part of their professional role, they have difficulty integrating this awareness into patient care (Hardin 2007; Magnan et al 2006). The literature indicates that numerous barriers exist for nurses who need to provide information and education about a patient's sexual life. Barriers include discomfort talking about the subject, embarrassment, a lack of knowledge and skill in approaching the subject, and a lack of time (Hardin 2007; Shell 2007; Cort et al 2001). Because many nurses are not given any basic sexuality education during their nursing education, increasing their sexual health knowledge is important (Hardin 2007). Some researchers have emphasised the cultural aspects of addressing sexual matters with

patients, reporting that talking about this subject in certain cultures might be more difficult than in others (Shell 2007; Magnan et al 2006; Aras et al 2004). Within Turkish society, the topics of sexuality and sexual activity have traditionally been considered as taboo. These attitudes are cultivated from an early age and can be attributed to the religious, moral and social values of the people. Consequently, this has an impact on nurses' own perceptions, values and attitudes and may prevent them from fulfilling their professional roles as counsellors and educators in an area about which they should be knowledgeable and skilled.

The research suggests that education programs are needed to help nurses develop both comfort and confidence in dealing with patient sexual matters (Magnan et al 2006; Stokes 2000). In Turkey, there is data showing that nurses employed in the cardiology field have insufficient knowledge, skill or special training regarding sexual issues for cardiac patients (Turkish Cardiology Society 2000b). There is little data regarding nurses' skills and practices related to post-MI changes in patients' sexual activity, sexual dysfunction or other sexual problems, the risk of a new MI caused by sexual activity, and sexual topics in the context of cardiac rehabilitation. This is the case despite the fact that nurses need to address patients' sexual lives as an element of a patient's overall health and as a part of quality of life in the critical post-MI period. In order for nurses to provide education regarding sexual activity for post-MI patients, the extent of nurses' knowledge regarding sexual activities for their post-MI patients should first be ascertained. From this perspective, this study will contribute to the nursing literature regarding nurses' knowledge and their practices as related to the sexual issues and concerns of post-MI patients.

### **Aim**

The aim of this study was to ascertain through open-ended questions cardiology nurses' knowledge about both the sexual life changes of patients suffering from MI and the physiological burden of sexual intercourse on the individual and indirectly to identify nurses' approach to addressing sexual issues of patients.

### **Method**

For this descriptive study, a structured face-to-face interview was conducted with 108 cardiology nurses at four university hospitals who were asked 15 questions related to their knowledge of sexual and lifestyle adjustments required following MI and the way in which this information could be best provided to their clients prior to discharge. In order to avoid interaction between the nurses during data collection, each nurse was interviewed individually in the nurses' room.

### **Sample**

Out of a total of 140 nurses working in the cardiology clinics and outpatient clinics of four large urban university teaching hospitals in Turkey, 108 (77.1%) agreed to participate in the study. All participants had a minimum of six months' employment. Each of the university hospitals where the study was conducted had a unit supervisor for the education and training of nurses. The nurses had not had any type of education regarding sexuality and rehabilitation in general; in particular they had no training concerning sexual-life changes in MI patients.

### **Measurements**

The data were collected using a questionnaire developed by the researchers based on the literature (Boyce and Umbland 2001; DeBusk et al 2000; Kimmel 2000; Moreira et al 2000; Muller 2000; Stein 2000; Drory et al 1995). The questionnaire consisted of the following sections: The first section included general demographic characteristics of participants. The second section posed questions related to the nurses' responsibility for providing sexual education to post-MI patients, education topics and content, and difficulties encountered while providing education. The third section contained questions related to changes in sexual activity following MI, the stress of sexual activity to the body, the recommended prerequisites for participating in sexual intercourse, and the medical treatments influencing the sexual activity of post-MI patients.

The responses to the open-ended questions in the questionnaire were classified as 'adequate,' 'partially adequate,' and 'inadequate' based on the inclusion

of the responses on the answer key. Even though the interviewer neither directly sought to reflect nurses' views on the subject, nor asked nurses to express their opinions, some nurses reacted verbally to the questionnaire. These intact verbal comments were recorded using pen and paper and transcribed to the findings section.

### **Ethical considerations**

Official permission was obtained from the institutions included in the sampling. Informed consent of the nurses was obtained after verbal and written explanations of the study objectives; confidentiality of information was ensured.

### **Data analysis**

SPSS Version 10.0 (Statistical Package for Social Sciences) was used for data evaluation. When expected cell sizes were adequate, nominal measures were compared using the Pearson Chi-Square test. Otherwise, the Likelihood Ratio Chi-Square test and Fisher's Exact Chi-Square test for 2x2 tables were used. In order to show statistically significant differences between demographic variables and the nurses' knowledge of sexual activity and the difficulties they experienced when discussing the topic, Chi-Square tests were used. The Mann-Whitney U test was used for comparing the number of nurses' appropriate answers with regard to sexual and lifestyle adjustment required following MI.

### **Findings**

The findings of the study were presented in two major sections which included nurses' knowledge of appropriate sexual practices for post-MI patients, nurses' actual conduct or 'status' as to whether they provided education regarding sexual activity for post-MI patients, and their comments on providing sexual education to post-MI patients. The majority of the study sample was younger than 30 years with over five years' employment experience. Almost half the nurses were married and had undergraduate or graduate degrees.

Nurses' knowledge of appropriate sexual practices for post-MI patients: Among the acceptable answers to multiple-choice questions related to post-MI sexual activity; appropriate room temperature during sexual activity (57.4%) was ranked the highest, while pulse changes during sexual activity (4.6%) and the risk of

a new MI caused by sexual intercourse (7.4%) were ranked the lowest (table 1). As shown in the table, statistical analysis between nurses' demographic variables and their answers to multiple-choice questions were not significant ( $p > 0.05$ ). However the Pearson Chi-Square test demonstrated significant differences between demographic variables and factors affecting sexual activity MI, and post-MI changes in sexual activity ( $p = 0.029$ ;  $p = 0.009$ ). Nurses' marital status was the variable responsible for the statistical difference, both in terms of factors influencing sexual activity and post-MI changes, in favor of unmarried nurses ( $p < 0.01$ ) (table 1). Despite the lack of a statistically significant difference, those who were younger than 30 years and highly educated had more adequate knowledge with regard to factors influencing post-MI sexual activity and nurses' knowledge on post-MI changes in sexual activity than the others (table 1).

The nurses' general knowledge of sexual activity after MI was evaluated based on their answers to 15 relevant questions. Only a negligible percentage of the nurses (0.9%) were able to give appropriate answers to a maximum of nine out of the 15 knowledge questions, a minority (23.1%) knew one acceptable answer, and some (13%) could answer none (figure 1). The Mann-Whitney U test showed no difference between the nurses' acceptable answers and their demographic variables ( $p > 0.05$ ). As to nurses' knowledge about the effects of medication on sexual function, the majority (76.9%) was unaware of the effects of drugs on sexual function and none provided instructions and information on the drugs and their effects on sexual function to post-MI patients. None of the nurses who considered that certain drugs could influence sexual function (13%) had enough knowledge about either the drugs or their effects. Regarding the use of Sildenafil (distributed under various names to include Viagra®) for post-MI patients, over half of the nurses (63.9%) had no information and nearly a quarter (26.9%) reported that Sildenafil use was not appropriate. A small percentage of nurses (9.2%) indicated that Sildenafil can be used by post-MI patients under doctor's orders, but none of those could correctly define the precautions for its use in post-MI patients except one nurse who pointed out that Sildenafil use could cause hypotension.

Table 1: Nurses' knowledge of sexual activity after myocardial infarction

Knowledge based on responses to single answer multiple choice questions	DEMOGRAPHIC VARIABLES (n=108)										P value
	Age %		Marital status %		Education %		Professional experience %				
	<30	≥30	Married	Unmarried	Vocational high school of health/ Two year nursing college	Under graduate/ Graduate	6 months to 5 years	>5 years			
Proper room temperature	Total Knowledge %										
	Yes	57.4	66.7	25	55.9	59.2	54.1	61.7	53.2	63	0.241*
	No	42.6	33.3	75	44.1	40.8	45.9	38.3	46.8	37	0.943**
Frequency of sexual activity	Total Knowledge %										
	Yes	37	38.1	33.3	35.6	38.8	31.1	44.7	37	37.1	0.595***
	No	63	61.9	66.7	64.4	61.2	68.9	55.3	63	62.9	0.471****
Effect of foreplay	Total Knowledge %										
	Yes	31.5	32.3	29.2	28.6	33.9	26.2	38.3	29	34.8	0.489*
	No	68.5	67.7	70.8	71.4	66.1	73.8	61.7	71	65.2	0.939**
Exercise-MI correlation	Total Knowledge %										
	Yes	25	29.2	23.8	24.5	25.4	18	34	21.7	27.4	0.352***
	No	75	70.8	76.2	75.5	74.6	82	66	78.3	72.6	0.201****
Time of resuming sexual activity	Total Knowledge %										
	Yes	16.7	16.7	16.7	13.6	20.4	11.5	23.4	17.4	16.1	0.146*
	No	83.3	83.3	83.3	86.4	79.6	88.5	76.6	82.6	83.9	0.418**
Easiest position for the heart	Total Knowledge %										
	Yes	13.9	13.1	16.7	20.4	8.5	6.4	19.7	8.7	17.7	0.186**
	No	86.1	86.9	83.3	79.6	91.5	93.6	80.3	91.3	82.3	0.513****
Energy consumption during sexual activity	Total Knowledge %										
	Yes	11.1	13.1	4.2	16.3	6.8	8.2	14.9	10.9	11.3	0.862*
	No	88.9	86.9	95.8	83.7	93.2	91.8	85.1	89.1	88.7	0.799**
Recurrent MI risk	Total Knowledge %										
	Yes	7.4	7.2	8.3	10.2	5.1	11.5	2.1	2.2	11.3	0.091***
	No	92.6	92.8	91.7	89.8	94.9	88.5	97.9	97.8	88.7	0.320****
Changes in the heart rate during sexual activity	Total Knowledge %										
	Yes	4.6	4.8	4.2	6.2	3.4	6.5	2.1	2.2	6.5	0.862*
	No	95.4	95.2	95.8	93.8	96.6	93.5	97.9	97.8	93.5	0.799**
Factors affecting sex life	Total Knowledge %										
	Adequate	13.9	14.3	12.5	6.1	20.3	9.8	19.1	17.4	11.3	0.971*
	Partially adequate	31.5	32.1	29.2	30.6	32.2	29.5	34	26.1	35.5	0.029**
Inadequate	54.6	53.6	58.3	63.3	47.5	60.7	46.9	56.5	53.2	0.222****	

Table 1: Nurses' knowledge of sexual activity after myocardial infarction, continued...

Knowledge based on responses to single answer multiple choice questions	DEMOGRAPHIC VARIABLES (n=108)										P value								
	Total Knowledge %		Age %		Marital status %		Education %		Professional experience %										
	Partially adequate	Inadequate	<30	≥30	Married	Unmarried	Vocational high school of health/ Two year nursing college	Under graduate/ Graduate	6 months to 5 years	>5 years									
Post-MI changes in sex life	22.2	77.8	23.8	76.2	16.7	83.3	16.4	83.6	29.8	70.2	20.3	79.7	24.5	75.5	21.7	78.3	22.6	77.4	0.009** 0.138**
Measures against warning signs	2.8	97.2	2.4	97.6	4.2	95.8	2	98	3.4	96.6	3.3	96.7	2.1	97.9	2.2	97.8	3.2	96.8	†
Warning signs	13	87	13.1	86.9	12.5	87.5	8.2	91.8	16.9	83.1	9.8	90.2	17	83	13	87	12.9	87.1	†
Factors increasing recurrent MI risk	7.4	92.6	4.7	95.3	16.7	83.3	10.2	89.8	5.1	94.9	9.8	90.2	4.3	95.7	2.2	97.8	11.3	88.7	†
Deciding when to have sex activity time	-	100	-	100	-	100	-	100	-	100	-	100	-	100	-	100	-	100	†

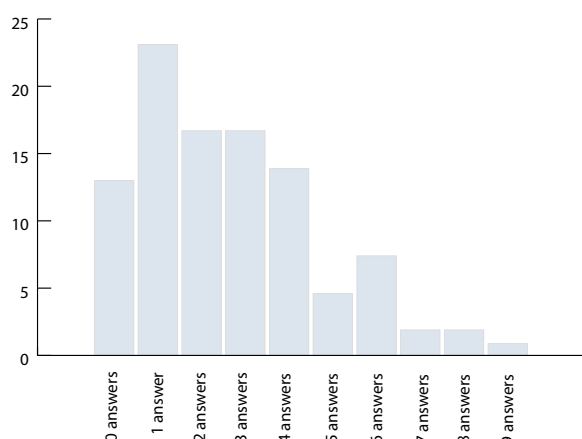
\*Statistical evaluation is based on the age of nurses

\*\*Statistical evaluation is based on the marital status of nurses

\*\*\*Statistical evaluation is based on the educational level of nurses

\*\*\*\*Statistical evaluation is based on the professional experience of nurse

†Statistical analysis could not be performed because of inadequate cell size

**Figure 1: Number of correct answers**

### Nurses' status of and comments on providing sexual education to post-MI patients

The present study indicated that the nurses did not receive any formal education relating to changes or eventual adjustments in sexual life and changes in lifestyle following MI or other diseases. Consequently, almost all the nurses (99.4%) did not provide sexual education or counselling to post-MI patients; the minority who did offer sexual education and counselling were better educated with two years of nursing college, undergraduate, or graduate degrees, however excluded the patient's partners from the education process. Some verbal comments and statements that the nurses expressed during the interviews were as follows:

One of my patients asked: *'How will I maintain my sex life after being discharged? I have fears about this'* and I said: *I don't have information about this subject, ask your doctor.*

This statement demonstrates avoidance by the nurse to providing sexual counselling even when sought by the patient. The reason for this avoidance might result from a lack of knowledge or a lack of willingness to communicate with patients concerning sexual matters. The nurse's reference to the doctor suggests that the nurse considers the physician as the authority on the subject rather than the nurse. This statement also suggests that the patient probably did not talk with the doctor about his/her concerns regarding future sexual activity.

*A male patient with acute MI diagnosis whom I was monitoring asked me a question about his sexual life. I was very angry with him for directing such a question at me.*

Perhaps the salient point which can be derived from this reaction by the nurse is gender discrepancy in providing such service. Or the nurse might be angry because of not having the answer.

*Even if I had information about sexuality following MI, I could not talk about this subject with my patient. Actually, our job may have been easier if relevant brochures were to be developed.*

Here, the nurse indicates her lack of information and avoidance in providing information about sexual activity following MI and suggests written resources are made available for patients. Informational brochures would take some of the pressure from nurses while providing patients with at least some information in this area.

While there were no statistically significant differences in demographic variables for those nurses who did not score well, those who had work experience of less than two years (59.3%) reported greater difficulty. The results showed that nurses' scored least in the area relating to the effect of sexual activity on a patient's health. Some verbal comments of nurses relating to the effect of sexual activity on an individual were:

*Something like this never occurred to me while doing that act and so I never took my pulse.*

*We can't go into our patients' bedrooms, so how would we know their positions?*

Both comments imply that nurses consider sexual activity as a personally private and intimate domain that should not be intruded on by them or others. It also highlights nurses' lack of experience in approaching the topic of patients' sexuality as part of their professional role.

### DISCUSSION

The findings of this study indicate that the nurses had extremely limited knowledge about the resumption of



sexual activity for post-MI patients and the impact of sexual intercourse on MI patients' health. Results of the study also revealed nurses' discomfort in talking about topics with a sexual content, thus they did not address these issues for post-MI patients. These findings are consistent with other research showing nurses' avoidance in mentioning the sexuality and sexual activity of patients. Matocha and Waterhouse (1993) concluded that almost half the nurses in their study did not evaluate the sexual health of any patient and those that did evaluate a patient's sexual health did not do so with all patients. Initiating a conversation about sexual matters with patients proved entirely too difficult. Likewise, Webb (1988) found that nurses had a generally low knowledge score on questions relating to sexual activity. None mentioned possible problems related to sexual function or provided clear information and they ignored the sexual life of their patients (Webb 1988). However due to the fact that sexuality is an essential aspect of normal human function, well-being and quality of life, nurses should approach their patient's sexual life holistically together with other areas of health and life without bias or partiality (Shell 2007). Individuals expect nurses to be able to address their problems related to sexual activity and to provide sexual education 'always' or 'in certain circumstances' (Fridlund 2002; Waterhouse and Metcalfe 1991).

The literature indicates that although healthy and ill individuals feel that nurses should be able to address sexual related topics, nurses keep as far away from the issue as possible (Gill and Hough 2007; Hardin 2007; Shell 2007; Magnan et al 2006; Cort et al 2001; Stokes 2000). According to McCormick (1980), nurses avoid addressing sexual matters because it implies interfering in the individual's personal life and privacy, since many people consider sexuality in the context of moral values and as part of the individual's private life. For this reason, discussing sexual related issues may be an uncomfortable area for nurses. In addition to the anxiety and discomfort caused by talking about sexual topics with patients, not discussing the subject may lead to feelings of guilt for the nurse. Therefore, nurses need to receive

professional training in human sexuality in order to enable them to provide information and education services to patients and their partners on this difficult to broach subject (Shell 2007; Magnan et al 2006).

Differences specific to culture, age and gender exist in sexual knowledge, attitude, and behaviour traits (Aras et al 2004). In a study conducted by Payne (1976) with family planning nurses and student nurses, the age and education of the nurses were found to be major determinants of knowledge, attitude and behavior relating to sexuality. In this present study, unmarried nurses' knowledge about the factors influencing a resumption of sexual activity for post-MI patients and changes in a patient's sexual life following MI were higher than for married nurses. Contrary to this study however, Payne (1976) found that sexuality knowledge was greater among married nurses compared with unmarried nurses. This discrepancy in research might be attributable to the characteristics of unmarried nurses in the present study who were highly educated and young. Perception of nursing as solely a woman's profession and the characteristics, social, religious and moral values of Turkish society may also have an effect on nurses' knowledge, attitudes, and practices toward the sexual life of post-MI patients.

One of nurses' fundamental roles is to be aware of the expected effects, side effects, contraindications and dosage of medications and to inform and counsel their patients about these. However studies conducted in Turkey have shown that nurses in general do not satisfactorily meet this responsibility (Ak 2000; Baklacioğlu 1995). Similarly, the findings of this present study highlight that nurses are not well enough informed to educate and advise their patients on the precautions related to using medications that affect sexual function, including Sildenafil. Consistent with the rest of the findings in this study, it is considered that the failure of nurses to provide information and education about the effects of medications on sexual function to post-MI patients is due to their lack of knowledge on the subject and the uneasiness they feel in addressing the subject.

## CONCLUSIONS

Nurses who have the task of evaluating sexual health for patients with MI, identifying existing and potential problems and intervening as necessary, feel uncomfortable discussing sexual issues with their patients and answering their patients' questions about sexual activity post-MI. This study found that nurses do not receive programmed information or training on post-MI sexual life; most nurses do not provide education on this subject to their patients; and all the nurses who do provide sexual education hold nursing college, undergraduate, or graduate degrees. In order to provide patient education on sexual life changes, nurses need to have a good grasp of human sexuality issues and a relaxed attitude to equip them to address this subject. The findings also suggest that although nurses in general have a poor understanding of post-MI sexual life, single nurses under the age of 30, who have perhaps not yet adopted the social values imposed by marriage and who have a modern thought structure, are more knowledgeable about the subject than their married counterparts.

## RECOMMENDATIONS

Nurses need to be educated to ensure they explore their own perceptions and values regarding sexuality, attain the knowledge and skills necessary to provide counselling and guidance to patients about care and sexual activity following MI and become equipped to identify problems and provide relevant information. Nurses can thus develop the relaxed attitude they need to confidently discuss sexuality and sexual activity with patients and their partners and refer them for specialised care as necessary. Both nurses and patients would deal more easily and comfortably with sexual issues if standards, booklets and brochures were developed to facilitate nurses' evaluation of the sexual issues for MI patients. Nurses could then make the necessary interventions based on their evaluations and education.

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# Critical care nurses' knowledge about the care of deceased adult patients in an intensive care unit

## AUTHORS

### Sevim Çelik

PhD, RN

Assistant Professor, Zonguldak Karaelmas University, Zonguldak School of Nursing, Department of Surgical Nursing, Zonguldak, Turkey  
sevimak@superonline.com; sevimakcel@yahoo.com

### Gülây Altun Uğraş

MSc, RN

Research Assistant, Istanbul University, Florence Nightingale College of Nursing, Department of Surgical Nursing, Turkey

### Sabahat Durdu

RN

Registered Nurse, Istanbul University, Istanbul Medical Faculty, Neurosurgery Intensive Care Unit, Turkey

### Meryem Kubaş

MSc, RN

Head Nurse, Istanbul University, Istanbul Medical Faculty, Neurosurgery Intensive Care Unit, Turkey

### Güler Aksoy

PhD, RN

Professor, Istanbul University, Florence Nightingale College of Nursing, Department of Surgical Nursing, Turkey.

## KEY WORDS

intensive care nurse, post-mortem care, nursing care, deceased patient

## ABSTRACT

### Objective

The purpose of this study was to identify knowledge deficits about the care of deceased patients among critical care nurses.

### Design

The research was conducted as a descriptive study in the adult intensive care units of a university hospital in Istanbul. The data were collected using a questionnaire.

### Setting

The study was conducted with nurses working in the medical and surgical intensive care units of a university hospital, including the coronary, neurosurgery, cardiovascular, post-anaesthesia and emergency intensive care units.

### Subjects

The subjects were 61 critical care nurses.

### Findings

The majority of nurse respondents (75.4%) did not have a certificate in intensive care nursing and 95.1% had not received education about the care of a deceased patient. There is no standard protocol at the hospital for deceased patient care. The majority of nurses stated they removed instruments, catheters, tubes, dressings from the body and cleaned drainage and secretions, but only 8.1% reported they dressed the patient in a clean gown and combed their hair. Of the nurse respondents, 24.5% did not provide emotional support to the individual's family.

### Conclusion

Nurses implemented appropriate clinical activities after death, however did not demonstrate appropriate support behaviours toward the patient's family or loved ones.

## INTRODUCTION

Human life begins with birth and ends with death, an inescapable process for all living beings (Babadag 1991).

Research from the United States of America found the mortality rate is approximately 50% for patients with cardiac or respiratory insufficiency; patients who have experienced trauma; patients who are haemodynamically unstable; and patients whose general condition has deteriorated and who are admitted to intensive care units (ICU) (Çelik 2004; Ciccarello 2003).

ICU nurses are expert individuals who are educated in the care and monitoring of ICU patients; who participate in ongoing education such as courses and seminars about the care of ICU patients; and who are by the patients' side 24 hours a day. In spite of this education, one of the most difficult duties for ICU nurses is providing care to patients they struggled to keep alive after they have died (Ciccarello 2003). Nurses may be prepared to face the death of patients in their ICU, but they still feel unprepared to give end of life care (Çelik 2004; Ciccarello 2003). Providing this type of care may also cause the nurse to experience feelings of guilt and inadequacy. During this period nurses have to share in the grief of patients' relatives as well as providing respectful and honourable post-death care to their patients (Marthaler 2005; Çelik 2004; Harvey 2001).

Nurses need to be aware of their own feelings and thoughts about death. Nurses often react to a patient's death by feeling inadequate, feeling they have failed or feel nervous, laugh or cry or have uncertain feelings when they touch a patient because of their culture, religious beliefs, previous experiences, or because the death was unexpected (Marthaler 2005; Sanazaro 2005; Çelik 2004; Brosche 2003; Birol et al 1997; Roper et al 1996). However ICU nurses have to keep all the emotions they are experiencing under control and carry out both their duty to care for the deceased patient's body before taking it to the morgue as well as helping the patient's family cope with the feelings they are

experiencing and supporting them in completing necessary administrative procedures, such as completing the death related section of discharge papers, discussing transplantation if appropriate, and having families sign for the patient's personal items (Marthaler 2005; Sanazaro 2005; Brosche 2003; Roark 2003; Roper et al 1996; Thompson et al 1994).

A literature review revealed that research has mainly focused on the nursing care of patients in the terminal stage of illness. There was only one study located that examined post-death care (Hill 1997); the remainder of the literature was about protocol development and in the form of review articles. The purpose of this study was to determine ICU nurses' knowledge about activities for patients after they have died.

## MATERIAL AND METHOD

### Design and sample

This research was conducted as a descriptive study with 61 nurses who worked in the adult neurosurgery, coronary, cardiovascular, surgical, post-anaesthesia, and emergency surgery ICUs of a university hospital in Istanbul, Turkey; who had previously given deceased patient care; and who willingly agreed to participate in the research. All ICU nurses were invited to participate in this study and 74% of these nurses volunteered.

### Data Collection and analysis

Data were collected using a questionnaire developed by the researchers from the literature. The questionnaire was pilot tested with ten ICU nurses and three academic nurse professionals and adjusted as a result of comments received. The nurses who completed the questionnaire for the pilot test were included in the sample but the academic nurse professionals were not. The final questionnaire was anonymous and self-administered to protect confidentiality.

The finalised questionnaire contained items relating to the nurses' demographic characteristics and nursing interventions related to the care of the individual who had died and the emotional support provided for the patient's family/loved ones. The



questionnaire was constructed to list care activities about nursing actions performed both before and after the family spent time with their deceased relative and nursing interventions performed to provide emotional support to the family. All the questions in the questionnaire were closed ended questions about the nursing care provided (eg “Do you remove tubes from the body: yes or no?”).

The questionnaire was given by the researchers to the ICU charge nurse or head nurse in the various ICUs, who were informed about the study goal and who were asked to give the forms to the nurse participants who worked in their ICUs. The charge nurses and head nurses were also asked to explain the purpose of the study to the nurses as they gave them the form for completion. The nurses were asked to complete the form during work hours and place it in the envelope provided to ensure confidentiality of their answers. After the questionnaires were completed they were collected by the researcher from the charge nurse or head nurse.

Data were entered in Microsoft Excel 2000 software. Methods of statistical analysis used included: frequency, standard deviation, percentage and Chi-square for all the items in the questionnaire.

### Ethical Approach

Permission to conduct the research was obtained from the hospital's Director of Nursing Services and each of the ICU head nurses after informing them about the study. The ICU nurses were informed about the purpose and content of the research. They gave their own verbal and written permission to participate. A sealed envelope was used to maintain the anonymity of their responses.

### FINDINGS

The mean age of the nurses was 28 years. More than half the nurses (54.1%) had a baccalaureate degree in nursing and 27.9% had worked as an ICU nurse for 1-3 years (mean of 59 months). The religious affiliation of all the nurses was Muslim (100%). Of the nurses participating in the research, 39.3% worked in the surgical ICU. The majority (75%) did

not have a certificate in ICU nursing and 95.1% had not received education about deceased patient care. All the nurses (15 nurses) had certificates from the ICU in which they worked in electrocardiography and cardiopulmonary resuscitation.

**Table 1: Nursing actions prior to the family spending time with their deceased relative (n=61)**

Nursing Interventions	n*	%**
Separate deceased person from other patients with curtain or screen	58	95.0
Remove all visible instruments and support systems	57	93.4
Remove tubes from the deceased patient's body	54	88.5
Cut the tubes remaining in the body 2.5 cm from the skin and cover with a dressing	14	22.9
Remove dirty catheters and dressings	58	95.0
Place the patient's body in supine position	51	83.6
Put a towel or small pillow under the deceased patient's head	10	16.3
Hold the eyelids closed for several minutes to assure closure	40	65.5
Close the eyelids with cotton thread	6	9.8
Ensures dentures in place before family spend time with deceased patient and removes them afterwards	4	6.5
Put a folded towel under the deceased patient's chin and ties it	41	67.2
Wipes away blood and drainage on the body and covers with a dressing	51	83.6
Put a clean gown on the deceased patient and combs their hair	5	8.1
Covers deceased patient with a clear sheet up to the shoulders and calls the family into the unit to spend time with their relative	37	60.6

\*More than one answer was given

\*\* Percentage was calculated according to n

The results demonstrated that 95% of the nurses, immediately after the death of a patient and before the family spent time with their deceased relative, closed the curtain or screen to separate the patient from other patients and removed 'dirty' catheters and dressings. Similarly the majority removed all visible life support system equipment (83.4%) and tubes (95%) from the patient's body, put the patient's body



into a supine position (83.6%), and cleaned the body, covering necessary areas with dressings (83.6%). There were very few nurses (6.5%-16.3%) who placed a towel or small pillow under the deceased patient's head, put a clean gown on the patient, combed the deceased patient's hair, put any dentures in place or closed the eyelids with a cotton tie (table 1). There was no statistically significant difference shown for post-death nursing care according to having an ICU certificate, length of employment in an ICU, or educational level.

**Table 2: Nursing interventions performed to provide emotional support to the family (n=61)**

Nursing Interventions	n*	%**
I would make it possible for family members to say goodbye who were not present at the moment of death	39	63.9
I would allow family members to participate in care of the deceased patient	7	11.4
I would definitely leave the family alone with the deceased patient when they came to the unit	24	39.3
I would rub the deceased individual's head, hold their hand and talk with them as I would a living person	2	3.2

\*More than one answer was given

\*\* Percentage was calculated according to n

When the nurses were asked whether or not they gave emotional support to the deceased patient's family, 24.5% stated they did not. Nurses who did provide emotional support primarily reported they provided an environment suitable for the family to say goodbye to the deceased and left them alone during this time (table 2). A statistically significant higher percentage of the nurses with an ICU certificate gave permission for the patients' family to participate in their care ( $p=0.008$ ). Length of employment in the ICU, educational level, or having received education on post-death patient care were not found to have a significant effect on the post-death care provided.

After the family had spent time with the deceased the most common nursing activities that were undertaken included tagging the deceased; giving the patient's belongings to the family and having them check the

contents; recording the death in the ICU notes and sending the deceased's body to the morgue (table 3). 'Remove clothing and wrap in a sheet' was stated by more nurses with an ICU certificate ( $p=0.001$ ) and by more nurses who had worked in the ICU for four to six years ( $p=0.01$ ) however as length of employment increased conducting this activity decreased. 'Label the shroud' was stated by more nurses who did not have an ICU certificate ( $p=0.03$ ) and by nurses who had worked in the ICU for four to six years ( $p=0.01$ ). There were no other statistically significant results for activities undertaken according to educational level; having an ICU certificate; having received education about post-death care; or length of employment in the ICU.

**Table 3: Nursing actions performed after the family spent time with their deceased relative (n=61)**

Nursing Interventions	n*	%**
Put tags with information about the deceased, their name and surname, time and date of death on the wrists, ankle, chin or toe	47	77.0
Remove clothing and wrap in a sheet	16	26.2
Label the shroud	36	59.0
Arrange for the deceased to be transported to the morgue	53	86.8
Document relevant sections of the discharge record in the unit	29	47.5
Document death of patient in ICU notes	46	75.4
Make necessary documentation in the morgue records	19	31.1
Check the deceased patient's belongings with the family and hand them over to the family	58	95.0

\*More than one answer was given

\*\* Percentage was calculated according to n

The nurses were asked about their knowledge of research into deceased patient care; the number of beds in the ICU; the number of nurses giving bedside care; and whether or not the hospital had a written protocol on post-death care. All the nurses responded that there was no written protocol and provided data which showed that the staffing was one nurse for every three patients. The mean number of beds was 14.3 ( $\pm 5.6$ ); mean number of nurses working day

shift was 5.3 ( $\pm 3.0$ ); and mean number of nurses working night shift was 4.03 ( $\pm 2.42$ ).

## DISCUSSION

This study showed that ICU nurses who are qualified to provide specialised care to patients also provide deceased patient care.

The literature shows that family members value the quality of care and respect shown to the deceased person than the care shown to them (Çelik 2004; Heyland et al 2003; Hill 1997). In a multi-centre prospective observational study conducted by Heyland et al (2003) it was also reported that families' satisfaction with the care that was given was related to the level of health care and respect shown to the patient and family members. The literature (Marthaler 2005; Çelik 2004; Roark 2003) recommends that post-death care be carried out as soon as possible following the person's death (within approximately four hours). Heyland et al (2003) also emphasised that care be given in a manner that provides privacy and shows respect to the deceased person; that the body be placed in the supine position with a small pillow placed under the head; that all catheters, tubes, 'dirty' dressings, instruments and support systems be removed from the body; or, if hospital policy is that tubes are not removed, they be cut off at the skin surface and covered with a clean dressing; that the body be washed and dried; that the eyes are closed; dentures replaced; the body placed in a clean gown; hair combed; and action taken to eliminate any unpleasant odours before inviting the deceased patients' family to see the deceased (Kazanowski 2006; Marthaler 2005; Harvey 2001). In this study as well, nearly all the nurses were careful to protect the privacy of the patient, and after placing the deceased's body in an appropriate position, they cleaned the body. However there were only a small percentage of nurses who stated they put a pillow under the deceased person's head; closed their eyes; put them in a clean gown; combed their hair; or replaced dentures.

In this study, 24.5% of the ICU nurses reported they were not able to support or show interest in a

deceased patient's family and loved ones, which is an important part of post-death care. Those nurses who provided emotional support stated they created an environment for the family members to say goodbye to the patient and tried to leave them alone. In the literature it has been emphasised that having the family see the deceased patient; saying goodbye to them; participating in their care activities; allowing them to touch the deceased patient's body; providing a quiet environment; listening to them verbalise their sadness and loss; not leaving them alone; and seeing nurses acknowledge the deceased person by speaking to them while undertaking post-death care, are all important activities. These interventions have a significant effect on reducing communication difficulties within the family of the deceased patient, and in their perception that health care personnel gave them and the deceased patient quality care (Marthaler 2005; Kirchhoff et al 2002; Harvey 2001). In this study, in contrast with the literature, only seven nurses (11.4%) allowed the family to participate in their care and only two nurses (3.2%) spoke to the deceased person while undertaking post-death care. In contrast to our study, in Hill's study (1997) a very high percentage of the nurses (94.6%) made it possible for the patient's family to participate in their care.

The post-death process in the ICU continues after the family or loved ones have seen the deceased patient by taking the body to the morgue and handing it over to the authorised person. This involves a range of activities being undertaken (see table 3) (Marthaler 2005; Roark 2003; Hill 1997). In this study, almost the only activity undertaken by the ICU nurses from all the procedures listed in the literature was to give the patient's belongings to the family. Because the hospital in which this study was conducted did not have written protocols, the number and percentage of nurses who undertook the other activities, particularly documentation, was small.

In addition, although in this study the nurses did not have a protocol to follow in carrying out deceased patient care activities, the overwhelming majority were baccalaureate degree nurses who had been

taught about deceased patient care during their nurses education, yet only 4.9% stated they had received formal education on this subject. These results suggest that perhaps the nurses did not remember the information they had been given during baccalaureate nursing education and learned about deceased patient care from their nursing co-workers and/or enculturation in the intensive care unit.

### CONCLUSION AND RECOMMENDATIONS

This study found the majority of the ICU nurses in the sample group implemented appropriate clinical activities after death, however did not demonstrate appropriate support behaviours toward the patient's family or loved ones.

Based on these results, to improve the quality of post-death care given by nurses, a standardised written protocol, particularly for use in ICUs, needs to be developed. In addition ongoing continuing education about the post-death process and nursing interventions needs to be provided.

### LIMITATIONS

The study was conducted with a small sample size. There is a need for a larger sample group to investigate the differences in deceased patient care in different ICUs and in different countries. It is also necessary to conduct the research in different category hospitals to be able to generalise the research results.

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# The impact of therapeutic relationship on preoperative and postoperative patient anxiety

## AUTHORS

### Behice Erci

PhD, RN  
Associate Professor, Public Health Nursing  
Department, School of Nursing, Atatürk University,  
Erzurum, Turkey  
behiceerci@hotmail.com; behice@atauni.edu.tr

### Serap Sezgin

PhD  
Assistant Professor, Psychiatry Nursing Department,  
Samsun School of Health, Ondokuz Mayıs University,  
Erzurum, Turkey

### Zennure Kaçmaz

MsC  
Assistant Research, Fundamentals of Nursing  
Department, Health Science Institute Atatürk  
University, Erzurum, Turkey

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## ABSTRACT

### Objective

The aim of this study was to determine the effectiveness of Peplau's Interpersonal Relations Model on preoperative and postoperative patient anxiety.

### Design

The study used a randomised clinical trial design.

### Setting

The sample of this study consisted of 120 patients who attended the surgery clinic at Atatürk University Hospital in Erzurum, Turkey between 1 June and 30 October 2004.

### Subjects

The patients were randomly assigned to the study group (n=60) and the control group (n=60).

### Interventions

Peplau's Interpersonal Relations Model intervention was implemented with the study group.

### Main Outcome Measure

The effectiveness of Peplau's Interpersonal Relations Model intervention with preoperative and postoperative patient's level of anxiety.

### Results

The level anxiety of patients in the study group decreased considerably preoperatively. There was a statistically significant difference between the study group and the control group in terms of the mean anxiety score postoperatively and before discharge from the hospital.

### Conclusion

The researchers concluded that decreased patient anxiety was likely to be associated with intervention based on Peplau's Interpersonal Relations Model. Peplau's model can be recommended as an intervention for nurses to improve patient care by decreasing anxiety in the preoperative and postoperative period.

## INTRODUCTION

Patients who undergo surgery experience acute psychological anxiety in the preoperative and postoperative period (Varcarolis 1994). According to Peplau, anxiety is an energy source inextricably related to human development from infancy to death and is required for biological and emotional growth (Peplau 1991). Anxiety about a surgical procedure may be reflected in numerous psychological symptoms in the preoperative and postoperative period. This phenomenon has been the subject of considerable study (Maward and Azar 2004). Nijkamp et al (2004) found that patient anxiety was the highest before surgery, decreased immediately after surgery, and increased again postoperatively.

In recent studies, prevalence rates of anxiety have been found to range from 11% to 80% among adult patients (Caumo et al 2001; Maranets and Kain 1999). One study indicated that sixty-two percent of patients suffered from preoperative anxiety; more women than men were affected; and more frequently after intra-abdominal surgery (Malek et al 2004). Preoperative anxiety is influenced by the patient's concern about their general health; uncertainty about the future; type of surgery and anaesthesia to be performed; postoperative discomfort and pain (White 1986); incapacity; loss of independence; and fear of death (Egan et al 1992).

Palapattu et al (2004) suggest that patient anxiety may decrease with the expectation of a positive outcome and with social support provided to the patient. They determined that demographic factors such as gender, age, and marital status were not significantly associated with the overall prevalence of anxiety (Palapattu et al 2004). Conversely, Nijkamp et al (2004) found that gender influenced anxiety levels in patients. Women were more likely to experience higher levels of anxiety than men preoperatively.

Some studies suggested that increased anxiety levels preoperatively, was associated with an expectation of behavioural change postoperatively. In other words, the anxiety level of patients increased because they considered they would have to make behavioural

changes postoperatively (Otagawa et al 2004; Kain et al 1999). Generally, anxiety scores decreased significantly postoperatively (Otagawa et al 2004). Not only the provision of the details about the expected recovery but also information about the preoperative period, the operative procedures and recovery led to significant reduction in self-reported anxiety (Maward and Azar 2004).

Patients continue to experience anxiety in the postoperative setting despite their increasing knowledge and access to knowledge and technological advances (Maward and Azar 2004). High anxiety may adversely influence anaesthetic induction and patient recovery (Kindler et al 2000), as well as decrease patient satisfaction with the preoperative experience (Thomas et al 1998). Consequently, there has been a growing interest in the study of anxiety reducing interventions and in the possible influences of preoperative anxiety on the course and outcomes of surgical treatments (Caumo et al 2001).

While some studies demonstrated a statistically significant decrease in patient anxiety using psychological consultations from the preoperative period to the postoperative period (Gul and Ali 2004; Palapattu et al 2004), none could be located that used a model designed specifically for implementation by nurses.

The central element of Peplau's model is to develop a therapeutic Relationship between patient and caregiver. Peplau's model is a process-organised model based on the human Relationship between: *"an individual who is sick, or in need of health services, and a nurse especially educated to recognise and to respond to the need for help"* (Peplau 1952 pp.5-6). According to Peplau, the therapeutic relationship is the central element in the nursing process (Peplau 1991). Peplau describes four phases in the nurse-patient relationship: orientation, identification, exploitation, and resolution. In the *orientation* phase, the individual has a felt need and seeks professional assistance. As the relationship moves into the *identification* phase, the patient begins to respond selectively to persons who seem to offer the help needed. The phase of *exploitation* refers to the use



of the relationship to the fullest possible extent in order to derive the greatest amount of benefit. The phase of *resolution* is a freeing process in which the patient's needs for psychological dependency and sustaining relationships have been worked through in order to strengthen their ability to stand alone.

Because of these distinctive features, the researchers chose to examine the use of Peplau's Interpersonal Relations Model in reducing patient anxiety

### **Aim**

The purpose of this randomised clinical trial was to investigate the effects of an intervention based on Peplau's Interpersonal Relations Model on preoperative and postoperative patient anxiety.

## **METHODS**

### **Participants**

The current study used a randomised clinical trial design. The study was based on a series of 120 consecutive patients who attended a general surgery clinic at Atatürk University Hospital, Erzurum, Turkey between 1 June and 30 October 2004 as a result of inguinal hernia, goitre and gall bladder disease. The patients attending the surgical clinic were given verbal information about the study and were prospectively invited to participate in the research when they were hospitalised. The patients were randomly assigned to the study group (n=60) and control group (n=60). The study group comprised patients who attended the surgical clinic on the first two days of week. The control group comprised patients who attended the surgical clinic the following two days of week. This assignment continued until 60 patients in each group had been recruited. The eligibility criteria were: being registered in the general surgery clinic; being age 18 years or older; having a surgical operation; and being mentally capable of giving voluntarily consent.

### **Measurement and Data Collection**

Data were collected using the Beck Anxiety Inventory (BAI) (Beck et al 1988) together with an additional form to collect demographic characteristics of participants. The BAI indicates how much anxiety the person has felt during the past month in response

to particular stimuli. The BAI was designed to discriminate anxiety from depression in individuals and is a recommended tool to assess anxiety in clinical and research settings.

### **The demographic data form**

The demographic data form was designed to elicit information about age, sex, diagnosis duration, monthly income, marital status, and education level (see table 1).

### **Beck Anxiety Inventory (BAI)**

The BAI developed by Beck in 1988 (Beck et al 1988) was adapted to Turkish culture in 1998 and its validity was tested and found to be valid by Ulusoy et al (1998). Individuals respond to an inventory of 21 items on a 4-point Likert scale (3= very serious, 2= moderately serious, 1= slightly serious, 0= not serious) producing a score between 63 and 0. The Turkish version of the inventory's internal consistency was 0.93. In this study, internal consistency of the BAI was 0.87. A higher score reflects higher anxiety.

The researchers collected baseline data (BAI) on patient anxiety from the participants in the study and the control group. The first measurement for anxiety was made on the first day the patients in both groups were sequentially admitted to the general surgery clinic in preoperative period. The Interpersonal Relations Model intervention was applied (see outline of care provided below) by the researchers to the patients in the study group immediately after the first measurement. The intervention was provided in the surgical clinic for 12 hours over one day in one week during the preoperative period. The second measurement for anxiety was carried out on the day before surgery for both groups. The third assessment for anxiety was completed on the first day of the postoperative period for both groups. The fourth evaluation for anxiety was conducted for both groups immediately before discharge from hospital. All assessments for anxiety and the model interventions were carried out by the researchers.

### **Application of the Intervention**

The questionnaire and BAI were applied to the study group and the control group before the intervention was implemented. Then, the model intervention was



conducted with the study group using the activities of caring in the model's four phases listed below (Peplau 1988). The intervention occurred over one week and the researchers spent approximately 84 hours with each patient in one week.

**Orientation phase:** At the start of the intervention the researchers acquainted themselves with the patients in the study group and initiated communication with them. The researchers and the patients worked together to identify and define the patient's health problems. The researchers also discussed symptoms with the patients and explained what to expect during the preoperative and postoperative period. All patients in the control group expressed a need for professional assistance. According to the patients' statements, the researchers identified the source of the patient's anxiety as the fear of becoming disabled. The researchers helped the patients to recognise their anxiety. Accurate and current information on the operation was provided to the patients and the patients informed about diagnostic tests and potential treatments.

**Identification phase:** The relationship between the researchers and the patients continued and developed during the identification phase. The patient's anxiety was explored with them in more detail. Identified problems included the patients' feelings about their surgery, which were fear, anxiety, their diagnosis, the outcome of their surgery and their prognosis. The patients had mixed emotions about their forthcoming surgery. The researchers provided one to one interaction during this period and provided information about preoperative and postoperative care and treatment, the role of remedies, possible complications, nutrition, anaesthesia, elimination, fear and pain. This type of discussion helped the patients and their families to gain confidence in dealing with their health problem and promoted hope and optimism. The patients began to feel a sense of belonging and gained confidence in dealing with their anxiety and health care needs. The researchers facilitated the development of collaboratively determined goals which led the researchers to enter the next phase of the relationship.

**Exploitation phase:** Some patients made full use of all available resources and began to control and search for their own answers to their health problems. Positive supportive responses provided by the researchers facilitated continuing development of the therapeutic relationship. Throughout this time, the researchers had the roles of counsellor and source person. The researchers developed a trusting relationship with the patients using one to one interactions. With each interaction the patients became visibly more comfortable.

**Resolution phase:** The final phase of the model is where the patients become independent and the relationship between the researchers and patients is dissolved. The patients were encouraged to call the researchers for information, support, and advice. The researchers continued to act as resources in providing information and support about such issues as health maintenance, employment, and other lifestyle issues. Eventually, the patients needed less one to one interaction with the researchers and no longer sought further assistance in arranging continuing support.

The intervention was not applied to the control group.

#### **Ethical Considerations**

The study received approval from the ethical committee at the Atatürk University and informed consent was obtained from each participant. Participants were assured of their right to refuse to participate or to withdraw from the study at any stage.

#### **Data Analysis**

The intervention formed the independent variable of the research. The anxiety score formed the dependent variable. There were no missing data. In the statistical analysis, two-tailed independent sample t-test was used to examine the difference between the study group and the control group anxiety scores. Mauchly's Test of Sphericity in General Linear Model and post-hoc (Tukey) test were conducted to determine the inter group difference of the anxiety scores in both groups. Covariance analysis was used

to investigate the relationship between the anxiety score and demographic characteristics.

## FINDINGS

A total of 120 patients were included in the study database. The study group and the control group demographic characteristics showed no difference in the mean age of the patients. Family monthly income was low in both groups; all the participants had health insurance; 36.7% of the patients in the study group

and 50.0% of the patients in the control group had graduated from primary school; average length of diagnosis duration was also similar in both groups. The demographic characteristics of the patients are given in table 1.

The statistical tests showed there were no statistically significant differences between the control group and the study group in terms of the demographic characteristics (table 1).

**Table 1: The demographic characteristics of the study group and the control group and chi square results**

Demographic characteristics	Study Group (n=60)		Control Group (n=60)		$\chi^2$	p
	N	%	n	%		
Diagnosis						
Inguinal Hernia	16	26.7	28	46.7	46.7	$\chi^2 = 5.39$
Goitre	26	43.3	10	16.7	16.7	df = 2
Gall bladder	18	30.0	22	36.7	36.7	p > 0.05
Gender						$\chi^2 = 1.07$
Female	36	60.0	28	46.7	46.7	df = 1
Male	24	40.0	32	53.3	53.3	p > 0.05
Education						
<Primary school	14	23.3	10	16.7	16.7	$\chi^2 = 0.61$
Primary school	22	36.7	39	50.0	50.0	df = 3
High school	16	26.7	16	26.7	26.7	p > 0.05
University degree	8	13.3	4	6.7	6.7	
Occupation						
Civil servant	14	23.3	18	30.0	30.0	$\chi^2 = 1.97$
Commercial	10	16.7	4	6.7	6.7	df = 3
Agriculture	8	13.3	12	20.0	20.0	p > 0.05
Home duties	28	46.7	26	43.3	43.3	
Marital status						$\chi^2 = 0.62$
Married	52	86.7	54	88.3	88.3	df = 1
Single	8	13.3	6	11.7	11.7	p > 0.05
	<b>Mean (SD) Study Group</b>		<b>Mean (SD) Control Group</b>			
Age (year)	40.8 (10.5)		44.3 (9.6)		t = 1.35, df = 58, p > 0.05	
Monthly income (US \$)	382.6 (228.5)		370.1 (198.8)		t = 0.22, df = 58, p > 0.05	
Diagnose duration (month)	4.8 (4.9)		3.8 (3.9)		t = 0.91, df = 58, p > 0.05	

The distribution and anxiety scores of the patients in both groups are shown in table 2. There were no statistically significant differences between the study and the control group regarding the patient anxiety scores before the intervention and operation.

The mean score of patient anxiety decreased in the study group following the intervention applied preoperatively. Additionally, the anxiety levels of the patients in the study group were reduced postoperatively and before discharge from the

hospital and these differences were statistically significant.

Table 3 shows the differences between the within group measurements for the study group and the control group. There were statistically significant differences between measurement times for patient anxiety in the study group ( $p < 0.001$ ). The post

hoc test suggested that the difference between measurement times was created by the third and the fourth measurement. There also was a significant decrease in the mean scores of patient anxiety for all measurement times in the study group. This result indicates that the intervention was associated with reduced level of patient anxiety in the study group.

**Table 2: The distribution and statistical evaluation of the anxiety scores of the patients in the study group and the control group**

The Intervention	The study group (n=30)	The control group (n=30)	t and p
	Mean (SD)	Mean (SD)	
Before intervention	18.5 (8.5)	18.2 (10.5)	0.16, $p > 0.873$
Before operation	14.8 (9.7)	17.7 (10.6)	1.11, $p > 0.270$
After operation	3.7 (4.7)	14.7 (6.2)	7.61, $p < 0.001$
Before discharge	1.4 (2.7)	9.7 (4.4)	8.79, $p < 0.001$

df= 58

**Table 3: The statistical evaluation of the repeated measurement of the inter group anxiety level of the patients in the study group and the control group**

Groups	Mean (SD)	Mauchly's W	Approx Chi-Square	df	significant
Study Group		0.044	86.63	5	$p < 0.001$
Measurement 1	18.5 (8.5)				
Measurement 2	14.8 (9.7)				
Measurement 3	*3.7 (4.7)				
Measurement 4	*1.4 (2.7)				
Control Group		0.002	175.60	5	$p < 0.001$
Measurement 1	18.2 (10.5)				
Measurement 2	17.7 (10.6)				
Measurement 3	14.7 (6.2)				
Measurement 4	*9.7 (4.4)				

\* Difference creating measurement

There were statistically significant differences between measurement times for patient anxiety in the control group ( $p < 0.001$ ). The post hoc test suggested that the difference between measurement times occurred by the fourth measurement. There was a reduction in the mean scores of patient anxiety in the control group before discharge from hospital.

The effect of demographic characteristics on patient anxiety was examined. Covariance analysis revealed that the patients' occupation and family monthly

income affected the anxiety level of the patient ( $p < 0.05$ ). Civil servant patients had less patient anxiety (mean score:  $15 \pm 9.9$ ) while higher monthly income increased the anxiety level of the patients (mean score:  $33.0 \pm 4.5$ ).

## DISCUSSION

Peplau's interpersonal Relations model has sufficient clarity to be operationalised in pre and perioperative nursing care. The literature review did not elicit any

previous study using Peplau's model for reduction of preoperative and postoperative patient anxiety. Therefore the results of the current study are discussed with findings of studies indirectly related to this study.

This study examined the effectiveness of an intervention based on Peplau's Interpersonal Relations Model on preoperative and postoperative patient anxiety. The results of this study indicated that the intervention decreased patient anxiety levels.

There were no statistically significant differences between the study and the control group regarding patient anxiety scores before the intervention and surgery. The present study showed that the mean score of patient anxiety decreased in the study group following intervention and before surgery. Additionally, the anxiety level of the patients in the study group was extremely reduced postoperatively and before discharge from hospital and there were statistically significant differences between the study group and the control group (table 2). This result showed that the intervention was effective in decreasing patient anxiety in the study group.

One study evaluating the effect of preoperative visits by operating theatre nurses on preoperative and postoperative patient anxiety in two groups of general surgical patients and showed there was a significant decrease in anxiety 24 to 72 hours postoperatively for the visited groups (Martin 1996). Gul and Ali (2004) showed there was a significant reduction in the mean scores of study and control groups after four weeks of counselling on reducing anxiety levels. Peplau's (1952) model provides a useful framework for nurses and guides the establishment of the model intervention.

There were statistically significant differences between measurement times in patient anxiety in the study group and anxiety scores were reduced in all measurements. This result showed that the intervention was associated with a reduced level of patient anxiety in the study (see table 3). A previous study using Peplau's Interpersonal Relations Model showed a decrease in level of anxiety to a manageable

level (Yamashita 1997). McGuinness and Peters (1999) found that the Interpersonal Relations Model was an ideal guide for nursing practice when nurses worked with patients with chronic conditions such as multiple sclerosis. Otawara et al (2004) concluded that anxiety score decreased significantly without intervention after surgery. This is supported by Nijkamp et al (2004) who also determined that the level of anxiety decreased immediately after surgery. The communication between the researchers with the patients by repeated measurements could also have contributed to a decrease in patient anxiety in the control group in the current study.

In our study, Peplau's model was associated with a lowering of patient anxiety. Peplau's allusions to the development of each individual nurse and the model use of self as a tool in professional practice, were especially relevant. There is, in this model, space for the individual practitioner to both reflect on and build interpersonal skills and to mix concepts from Peplau's writing with concepts from other knowledge bases.

Covariance analysis revealed that only occupation and family monthly income affected the anxiety level of the patient, but no other demographic characteristics. One study indicated that demographic factors such as gender, age, occupation and marital status were not significantly associated with the overall prevalence of anxiety (Palapattu et al 2004). Maward and Azard (2004) found that there was not a significant relationship between anxiety level and demographic characteristics, although one study did show a significant association between degree of preoperative anxiety and gender. Female gender was associated with higher risk for preoperative anxiety (Caumo et al 2001). In the current study, the characteristics of the sample group were different from features of sample groups in other studies.

### **Study Limitations**

Although these findings give valuable insight into the reduction of preoperative and postoperative patient anxiety, the findings in this study must be interpreted with caution. The researchers provide the Interpersonal Relations Model intervention and

also collect the data from each patient by asking the questions from the BAI. This can be seen as a limitation.

The sample in this study reflects only one group of patients in Turkey. The findings therefore cannot be generalised to all patients with preoperative and postoperative anxiety in Turkey or in other countries. Further research is recommended to replicate this study. Future studies should include larger samples from different patient groups.

## CONCLUSION

In the current study, Peplau's Interpersonal Relations Model was found to be useful in reducing preoperative and postoperative patient anxiety. The researchers concluded that an intervention related to based on the Interpersonal Relationship Model was likely to be associated with decreased patient anxiety. The results of this study show that the Interpersonal Relations Model can be recommended as a guide for nurses in order to improve their ability to be more effective in nursing care for patients with anxiety.

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# Assessing leadership in nurse practitioner candidates

## AUTHOR

### Cathy Watson

RN, RM, MCHN, NP, BA, Grad Dip in Advanced Nursing (Women's Health), MNSc (Nurse Practitioner), Certificate of Tropical Community Medicine and Health Nurse Practitioner, Women's Health, Gynaecology Assessment Clinic, Royal Women's Hospital, Victoria, Australia  
catherinejwatson@bigpond.com

## KEY WORDS

Nurse practitioner, leadership, assessment

state or territory rather than the national level. Nurse practitioner is a protected title in Australia. To practice as a nurse practitioner in Australia, candidates must be endorsed or authorised by the nurse registering authority in the relevant state or territory of Australia. The NP candidate can be based in both hospital and community settings, caring for both inpatients and outpatients, over a range of specialty areas. The context of this paper is Victoria, Australia. Currently there is no national process for the registration of NPs. Each Australian state or territory determines its own requirements.

## Subjects

Nurse practitioner candidates in Victoria, Australia.

## Primary argument

Clinical leadership is difficult to define and assessment of NP candidates for leadership qualities can be subjective and inconsistent. Leadership is often confused with management and those who are seen by their colleagues as leaders are not necessarily in senior positions. NP candidates applying for endorsement or authorisation to practice as a nurse practitioner are assessed for competency in leadership by the nurse registering authorities with no clear defining criteria. Many of the leadership indicators may fall under a different Standard of Competency for NPs (ANMC 2006).

## Conclusions

Those who are seen as leaders do not necessarily fulfill consistent and predictable criteria. Many NP candidates will not have achieved clinical leadership as outlined in the ANMC standards for Nurse Practitioners (2006). Definition of leadership has been notoriously difficult across nursing and other disciplines. The concept of transformational leadership appears to fit the NP model appropriately, although measurement of transformational leadership is as equally problematic as the traditional view of leadership. Until an acceptable definition of clinical leadership for an NP is developed, assessing NP candidates for this quality should be creative and flexible, and recognition should be given that leadership qualities may be in developmental stage.

## ABSTRACT

### Objective

The aim of this study was to explore the concept of leadership as it applies to nurse practitioners (NPs) and examine the issues around assessing NP candidates in Australia for leadership qualities.

### Setting

Currently in Australia, registration as a nurse, midwife, enrolled nurse or nurse practitioner is conducted at the



## INTRODUCTION

The evolution of NPs in Victoria, Australia, has been an arduous process. The first Victorian NPs were endorsed by the nurse registering authority in 2004. Each state and territory in Australia has different requirements for the NP candidate to fulfill although nationally consistent approaches to educational requirements and endorsement for NPs are in progress (N3ET 2006). The role of NPs has been opposed by certain groups such as the Australian Medical Association (AMA 2005) which has further complicated the progress of this emerging nursing role. All NP roles are evaluated in the context of their specialty and location (metropolitan, rural or remote; hospital or community) using the Australian Nursing and Midwifery Council *Competency Standards for Nurse Practitioners* (ANMC 2006).

The measurement of NP candidates against some of the competency standards is challenging. One of these aspects, which is arguably the most difficult to define, is leadership. This paper seeks to highlight the difficulties in measuring leadership in NP candidates and seeks to clarify what leadership could mean for the NP. It also proposes creative means of assessing NP candidates for leadership qualities in the absence of clear guidelines.

## COMPETENCY STANDARDS FOR NURSE PRACTITIONERS

In order to become endorsed as a NP in Victoria, Australia, there are three generic standards a NP candidate is required to meet.

Prior to interview, the NP submits their curriculum vitae and professional portfolio for assessment. Interviews are conducted by assessment panels consisting of a clinical pharmacologist, a medical specialist, relevant senior nursing personnel and a representative from the nurse regulatory authority.

Following successful interview(s), referees are checked, usually by detailed written forms as well as verbal communication.

By using the ANMC Competency Standards (ANMC

2006) as a measure of NP competence, there is an implication that the standards are accurately and readily measurable. These standards are:

**Standard 1:** Dynamic practice that incorporates application of high level knowledge and skills in extended practice across stable, unpredictable and complex situations.

Standard 1 is measurable both by the seniority of the position of employment the NP candidate holds and the level of nursing practice achieved. The level of practice includes any extensions of nursing practice beyond the traditional skills level and the complexity of skills the NP candidate uses in practice. The NP candidate may have evidence of further study or experience to gain these skills. The knowledge base, research and learning evidence, and written references given by senior medical and nursing staff working with the NP candidate are also explored. A series of interviews is often conducted, where a NP candidate discusses practice and presents case studies which are thoroughly explored with the NP candidate and the interviewing panel.

**Standard 2:** Professional efficacy whereby practice is structured in a nursing model and enhanced by autonomy and accountability.

The NP candidate is required to understand and demonstrate scope and boundaries of practice and works collaboratively with and autonomously within a team of health care professionals. Organisational support needs to be documented and accountability pathways defined. Professional collaborations and relevant service that fits within an organisation as well as having relevance to the designated client group needs to be delineated. It should be clear in the application and interview(s) whether a NP candidate has this organisational endorsement and workplace structure to support practice. The NP candidate's model of practice needs to be clearly articulated and a proactive and progressive approach to practice that benefits the client needs to be demonstrated.

**Standard 3:** Clinical leadership that influences and progresses clinical care, policy and collaboration through all levels of health service.

Standard 3 is measured by the candidate's ability to engage and lead clinical collaboration that benefits their client base and influence at the systems level of health care by engaging in and leading informed critique (ANMC 2006). Carryer et al (2007) support the ANMC stance by proposing that the leadership role is related to clinical practice. This role develops and extends clinical skills in the context of health service delivery. These authors also suggest that NPs inform and guide local and national health policy.

While Standards 1 and 2 have clearly measurable parameters, Standard 3 requires individualised creative arguing of the case. It is contended that this area is the one that is most difficult to measure; each nurse may demonstrate clinical leadership in a different way and in ways that are less well articulated than Standards 1 and 2.

### **Difficulties Evaluating Standard 3**

In some ways the measure of Standard 3, clinical leadership qualities, overlaps with Standard 1, for example, being a senior member of a team. Daly et al (2004) suggests that this leadership is embedded in the concept of clinical experts being involved in the provision of patient care.

Mentoring and supervision are documented. Informed critique and influence at systems of health care level are valued. Brown and Draye (2003) suggest that the emerging of new nursing roles such as those of NPs inevitably result in changes in the health care system. The NP is an integral part of this process.

However Standard 3 is less readily measurable and more open to the interviewing panel's interpretation. The NP candidate can provide evidence to demonstrate leadership, but this will vary significantly with each individual candidate, and the provision of this information is far more open to interpretation by the candidate and the panel than the clearly defined parameters of Standards 1 and 2.

Gardner et al (2006) found the competencies surrounding leadership (Standard 3) to be less robust than those in Standards 1 and 2 and found data on the leadership qualities of NPs to be 'tentative but convincing'. This may be due in part to the relative

newness of the NP role at the time of the study, but no such difficulties were found with supporting Standards 1 and 2.

The NPs who were interviewed as part of the Gardner et al study showed a commitment to leadership both in the clinical role and in the health system, although detailing how this was demonstrated in practice was mainly focused on the concept of pioneering the NP position. Gardner et al appeared to indicate that because the NP role is embedded in a strong base of clinical expertise and education and awareness of the articulation between nursing and the health service delivery, NPs are therefore leaders.

## **NURSE PRACTITIONERS DEMONSTRATING LEADERSHIP**

### **Nurse Practitioner: Leader in the Field**

A nurse practitioner candidate in Victoria is required to provide evidence of 'significant leadership in the category' (NBV 2006). The Final Report of the Task Force for Nurse Practitioners (DHS 1999) recommended that the core components of the NP role should include:

- advanced clinical practice,
- education encompassing client education and professional development,
- counselling,
- research and quality improvement, and
- administration and management.

Somehow these core components seem to have been overshadowed as the role of the NP evolves and the current expectations are that NPs are leaders in their field. Leadership is discussed in the DHS (1999) report however it refers to the leadership of the Department of Human Services by providing assistance, funding, advocacy and guidance to the NP candidates.

Much of the literature associates NPs with leadership without really explaining how leadership is defined, with the assumption that the concept is understood. For example, Gibson (2006) infers that nurse leaders are team or unit managers and that leadership equates to ensuring patient care plans are implemented and staff are managed. Although these

aspects may be features of leadership, leadership cannot be restricted to management roles. Milstead and Furlong (2006) propose nursing leadership involves conflict resolution, communication, critical thinking, delegation, and documentation. This demonstrates the traditional view of leadership where leadership is limited to a set of functions or qualities. Kerfoot (2001 p.59) suggests that "leadership can be seen as the practice of small actions that can engage or alienate or nourish or deplete those around us". Colourful and inspiring as this description is, it is not useful in attempting to measure clinical leadership in the NP candidate.

Bryant-Lukosius et al (2004) make the distinction between leadership and 'transformational leadership' suggesting that transformational leadership should characterise the NP's practice. Transformational leaders are said to use ideals, inspiration, intellectual stimulation and individual consideration to influence the behaviours and attitudes of others (Bass and Avolio 2000); moving followers beyond their areas of self interest (McGuire and Kennerly 2006). Being a visionary is said to be a key element of transformational leadership (Daly et al 2004), fostering a sense of direction and common purpose, guiding decision making and creating momentum towards goal. Lack of literature or guidelines detailing specific assessment criteria in this way makes assessing transformational leadership problematic.

Daly et al (2004) suggest that newer leadership theories focus on the processes. In these theories, leadership is seen as a collective process among groups, directed toward a common goal. If leadership is indeed expressed through groups, individual assessment of the NP candidate may be difficult.

There is a diverse understanding of leadership including clinical leadership in the literature. A particular theory or definition has yet to be widely accepted.

### **COMPONENTS OF LEADERSHIP**

It has been proposed that examples of leadership for NPs includes but is not confined to being pioneers

(Stanley (2005); change agents (Busen and Jones 1995); mentors (Hayes 2001); and advocates (Daly et al 2004). However even with these examples, practical application and demonstration of these aspects of leadership may be problematic. Not all NPs will be pioneers, change agents and mentors, although most will demonstrate features of advocacy. Each will however, demonstrate varying degrees of leadership in their own distinctive way.

#### **Pioneer**

It is often said that NPs are clearly pioneers, forging the way ahead. Brown and Draye (2003) discuss pioneering as establishing, maintaining and building the NP role. They discuss the need for early NPs to advance autonomy to make a difference and break free of traditional nursing roles and limitations. Forging new partnerships and relationships is vital for this process.

Demonstration of involvement as a pioneer or change agent may be possible if the NP candidate has taken a leading role in the process. For a NP candidate to become endorsed there is much background work that is undertaken by both the candidate and others who support and have supported the role in many ways. In the USA where practicing NPs number more than 70,000 (Boyd 2000) compared to Australia which boasts less than 200 (Dunn 2006), some NPs are no longer wishing to regard themselves as pioneers. Kodiath (1995) claims that the age of pioneering is over for NPs in the USA. He argues that NPs now need to develop interdependent team-based practices with the patient as a team member. He cites the need to experience influential relationships between leaders and collaborators intending real change for mutual purposes. The concept of leadership being pioneering, if we are to follow the American example, is most likely a measure that is limited to the development of the NP role and may not be applicable to NPs in the years to come, as NPs become established and accepted in the Australian health care system. Thus in these early stages of the movement of NPs in Australia, the concept of pioneering may be appropriate, but this aspect of leadership may need to be revisited in

years to come as the NP movement becomes more accepted and established.

### **Role Model**

Joyce (2001) suggests that registered nurses (RNs) benefit from the NPs' capacity to promote the nursing profession both developmentally and publicly. NPs are in a position to be able to mentor RNs and assist them with developing practice. Mentoring is seen to have a dual benefit to both the preceptor and the student (Griffith 2004). Not all role modeling is seen as successful however as the benefit can be hindered or facilitated by the NP and preceptor student's demographics and personality, experience of the NP, and the clinical setting (Hayes 2001). Being a role model certainly fits with leadership qualities, both in the traditional sense of leadership and the transformational leadership model.

When assessing NP candidates, the candidates themselves may be asked to convince the panel of their leadership as a role model or mentor. Mentoring could be included by implication in Standard 3, Competency 3.1d (ANMC 2006), through participation in intra and inter-disciplinary peer review. However unless the mentoring is formalised, it is often not the individual who defines whether someone is or is not a role model. NPs may be able to provide evidence of informal mentoring, although measurement may be difficult if the mentoring or role modeling has not been documented.

Another key element of leadership is said to be delegation, or letting go (Daly et al 2004). This is a final but important step of the role modeling process. Letting go involves the role model relinquishing a role or opportunity and supporting the other in the delegated role; allowing the other to extend practice.

It is not clear who is the most appropriate person to determine whether or not a NP is a role model, whether it is the NP, a colleague, or those who are being mentored. Accurate measurement of this quality can therefore be uncertain.

### **Change Agent**

The capacity to be a change agent is not limited

to NPs; Skelton-Green et al (2007) suggest that to manage change is integral to leadership. To become a change agent in nursing, a nurse must be able to deal with resistance, as the prospect of change inevitably invokes resistance. Dealing with conflict resolution is also paramount (Strunk 1995), as resistance and hostility is a common experience of change agents (Brown and Draye 2003).

Many NPs are remodeling advanced nursing practice and policy. As their roles evolve, they are often at the forefront of nursing, defining practice, advocating for patient rights, and implementing evidence based practice in their workplace through participation in and application of research. Buonocore (2004) suggests that to be a change agent is leadership in action, in the context of leading the way to change practice.

Change of practice and policy usually involves a number of people over a period of time and often includes managing resistance. Documentation of individual involvement in the process may be difficult to demonstrate. Many change agents work collaboratively, slowly, over time, establishing professional networks and initiating and implementing change. There may be others who take accolades for the work that has been performed by many others over time, sometimes due to their senior position at the time the change or progression has taken place.

Influencing health care policy and practice are certainly examples of being a change agent (ANMC National Competency Standards for the Nurse Practitioner, Standard 3, Competency 3.2 Engages in and leads informed critique and influence at the systems level of health care). This would be one indicator that is measurable and clearly directly related to leadership. An example of this would be various individuals, groups and organisations lobbying the government about a particular issue to bring about legislative change. Changes to several Acts were required before NPs were able to practice. These included The Health Legislation (Amendment) Act (2003), The Nurses Amendment Act (2000) and The Nurses Act (1993). Amendments were also required for the Drugs, Poisons and Controlled

Substances Act (1981) in order for nurses to be able to prescribe medications from a limited formulary. Nurses who were part of forums, advisory groups, committees and taskforces advising and making recommendations to the Department of Health could be regarded as change agents, preparing the ground for NPs to practice in Victoria.

Other examples of change agents could be the NP who works collaboratively to produce an evidence-based clinical practice guideline that changes practice, or the NP who sees inequity in the health care of a client group and applies for funding to set up a more appropriate practice.

### **Advocate**

In close alignment with being a change agent is the notion of advocacy. Many NPs are advocates, advocates for their patients, for health issues and for the progression of nursing. Advocacy is said to be a combination of individual and social actions with the end goal of political and community support for a particular health program or goal (Daly et al 2004). NPs need to be aware of the social and political contexts in which they work, as well as maintaining effective communication with colleagues. Establishing networks and effective channels of communication with relevant stakeholders are also important for advocacy.

The Australian Nurse Practitioner Association is associated with the International Council of Nurses (ICN). This forms a part of the World Health Professional Alliance, which advocates for sustainable and accessible health care for all, health and human rights globally, as well as gender issues and equal opportunity. Active membership and support of this group could also be seen as evidence of leadership and as change agents for equitable global health care.

Advocacy is not a unique feature of clinical leadership for NPs. To be an advocate is important in all levels and fields of nursing. It is however an aspect of clinical nursing leadership that would be relevant to NP candidates.

### **IS LEADERSHIP LEARNED OR INNATE?**

It is interesting to consider whether a nurse can actually learn leadership or whether leadership qualities are innate. When people are seen as leaders it is sometimes unclear whether they are seen as leaders in terms of function or intrinsic quality. It is also unclear who it is that determines nurses to be leaders: managers, peers, patients or those external to the workplace. With nursing, it is generally management at a higher level that designates; appoints leaders; team leaders; unit or ward leaders. However management is better suited to determine managers rather than leaders. And the two do not necessarily go hand in hand. A nurse is able to be a nursing leader without holding a senior position. Conversely, a nurse is able to work at a senior level without being a leader. There is often an understanding that leadership qualities develop, in a similar way to gaining wisdom with age. However some nurses are never seen as leaders as they age. The argument for seniority in position equating with leadership, which may come with experience or promotion, is a difficult concept to be confidently applied.

Multiple courses abound which claim to make people better leaders and this perhaps reflects the possibility that there are many people in leadership who need to acquire strategies and skills to assist them to lead. However evidence of completion of one of these courses is not necessarily evidence that a NP candidate is a leader.

A similar argument can be proposed for the requirement for NPs to have master's level educational preparation. These courses are designed to prepare a nurse for practice at NP level and, according to Gardner et al (2006) the students of these courses felt strongly that a clinical component was important to support theory. Although the students reported the course gave good preparation for practice as an NP, it is unclear whether they felt prepared for a leadership role. Most NP courses in Australia are at a master's level and some of these courses contain study



areas pertaining to clinical leadership (Gardner et al 2006). It is not clear how this leadership component is assessed, however it is likely that study of areas such as legal and political frameworks and managing change, as well as advanced nursing education would presumably prepare the nurse for clinical leadership. The inconsistency of the NP courses across Australia noted in this paper further highlights the difficulty NP candidates would face in preparing to argue their own case for being a clinical leader by virtue of having completed a master's degree in preparation for their NP role.

### WHAT IS LEADERSHIP?

There is a difference between leadership and management. Management implies directing, controlling and/or supervising. NPs are expected to be senior members of a health care team (ANMC Standard 3, Competency 3.1 *Engages in and leads clinical collaboration that optimise outcomes for patients/clients/communities*). Stanley (2006) sought to elicit the qualities of clinical nurse leaders. A surprising finding was that the nurses seen to be leaders were not necessarily in senior positions.

NPs may well manage a clinic, but management usually (but not always) refers to power elites that can be distanced from the practical work of an organisation. Although NPs may hold senior positions, their main function lies in advanced clinical practice. As the NP role evolves, it is important to remain mindful of this concept.

Undertaking a course of study does not necessarily determine the suitability of a NP candidate, nor does their workplace position. Being a manager is not a pre-requisite for candidature, although most NPs are expected to be working in senior positions and one of the measures of their leadership is often seen by their position.

Rost (1991) suggests that the large majority of leadership scholars accept definitional permissiveness and ambiguity of the concept of leadership. It is not surprising therefore that clinical leadership in nursing is so difficult to define. He suggests leadership should be defined in the context of the interactive

and dynamic relationship between the leader and the followers.

### Leading Whom?

The term leadership implies that the person is leading a person or a group. With many NPs, their role may be working alongside medical or other staff, or they may be a part of a team of NPs working in a particular specialty rather than leading. The concept of authority or election is also often implied, which again may be difficult to apply to NPs.

### Leading How?

A distinction needs to be made between those who lead and effective leaders. In history, some visionaries who were leaders used their influence with devastating effects (eg Adolph Hitler). Some in leadership positions closely guard clinical or professional opportunities for themselves, take credit for other's work, or only share opportunities if they themselves are unable to partake. They are generally not seen by their workplace as effective leaders (Stanley 2006). Conversely, those who share opportunities and accolades, and seek to develop the expertise of others regardless of gain for themselves portray themselves as leaders who are not self seeking, and set an example to others of responsible and commendable leadership to which others aspire.

Effective leaders in nursing raise others to higher levels of practice and provide opportunities for skill development. Those leaders recognised as effective act with integrity and use ethical practice that aims to reduce health care barriers for minority or marginalised individuals and groups (Milstead and Furlong 2006).

### Clinical leadership defined

The concept of clinical leadership with regard to NPs is sometimes hard to define and difficult to quantify. Interpretation can be seen by either role or qualities or both. Leadership qualities can be both innate and learned. Clinical leadership of the NP is multifaceted and results in change. Change can be at policy level, professional level, or at the patient level. Demonstration of clinical leadership



can include but is not limited to having a recognised advanced clinical nursing role; being knowledgeable; mentoring or facilitating; inspiring or motivating others; maintaining an ethical practice; promoting or developing the nursing profession; or developing new initiatives.

### **Assessing leadership in a NP candidate according to ANMC Standards**

#### **Professional position**

It is expected that a NP is a senior member and/or leader of a team (ANMC 2006: Competency 3.1a) and actively participates in influencing health care policy at a local and national level (ANMC 2006: competency 3.2). Seniority is valued, although this may not reflect clinical expertise or whether the candidate is an effective leader.

#### **Influences systems level of health care**

Standard 3 of the ANMC Competency Standards for NPs (2006) states that: *clinical leadership that influences and progresses clinical care policy and collaboration throughout all levels of health service*. Policy work and policy development are key indicators. Researcher, clinical teacher, case coordinator and spokesperson are examples of this role.

The importance of influencing policy making and patient advocacy cannot be underestimated, as health care is always on some political agenda and participation in decision making processes enables those who shape policies to be informed. Contributing to the body of knowledge of nursing is also vital. Influencing policy, researching and teaching may benefit the patient. However, many researchers are not considered leaders and many teach without leading. Fulfilling these roles may or may not be examples of leadership, depending on the outcome of the activity and the change effected in the recipients.

#### **Engaging and leading clinical collaboration (ANMC 2006: Standard 3, Competency 3.1)**

The indicators listed under this Competency include establishing effective communication strategies; articulating and promoting the NP role; and monitoring one's own practice (3.1 b, c, d). Although

attributes such as collaboration and consultation are demonstrable, these attributes are not limited to NPs. These qualities are important for all nurses and are vital to practice as nurses work collaboratively within an often multidisciplinary team. Requirements for NPs to provide evidence for advanced practice may be formalised in some states or territories of Australia. Although these are important activities they do not directly measure clinical leadership of the NP.

#### **Research and publication**

When attempting to measure leadership, a NP candidate's willingness to participate in and initiate research is taken into account. Key application criteria for NP candidates in Victoria includes: *evidence of independent involvement in research activities in relation to their practice, and evidence of significant leadership in the practice area in which they are applying for endorsement* (NBV 2006 p.15).

The Competency Standards for Nurse Practitioners make no mention of publication with regard to leadership, although Standard 1 includes conducting research as an indicator of competency (Competency 1.4). However publications, especially publications in academic journals, are given much credence. Exploring the difference between publishing in academic journals and producing quality patient information literature illuminates the inconsistencies in the way the NP candidate is assessed in this area.

#### **Academic Journals**

Publishing in a peer reviewed professional journal can take many months of preparation, writing and revision. Professional development is enhanced and the benefits hopefully filter down to the patient. Other publications include developing patient information literature which can be of direct benefit to the patient.

Developing *quality* evidenced based patient information literature often is in conjunction with of research or review. Although the professional and public scrutiny of patient information literature does not currently compare with publication in academic journals, the pursuing of quality evidence

based patient literature can be a practical application of the knowledge gained from clinical research. Despite patient information literature not usually being subject to the same rigour as peer review, it requires dissemination among relevant stakeholders, sometimes including nursing, medical and allied health professionals and consumers. This collaboration and participation in the process surely supports a NP candidate's credentials towards the goal.

Developing patient information literature meets criteria outlined in ANMC (2006) Competency Standards for Nurse Practitioners (see competency 1.2.4; 1.2.7; 1.4.1; 1.4.2; and 2.3.2). In the assessment of NP competence, publications would more likely fit under ANMC Standard 1 than in the assessment of leadership, although citations, practice change, and clinical impact are measurable parameters that could reflect clinical leadership. This exemplifies the creative boundaries for assessing leadership that can be applied to the NP candidate.

#### **Examples of a NP candidate's demonstration of leadership**

##### **1. Actively contributes to the body of knowledge in nursing**

Demonstration by: presentations at inservices, seminars, workshops and/or conferences; research, scholarly journal publications; contribution to development of evidence based patient information literature; involvement in nursing forums, discussion groups.

##### **2. Professional recognition**

Demonstration by: professional or organisational awards or recognition; leadership roles in a professional organisation; grant writing success; invitations to guest lecture; case co-ordinator; consultation activities.

##### **3. Role model or mentor**

Demonstration by: unsolicited comments or feedback from patients; peer review or evaluation; 360 degree evaluation from supervisor/peer/subordinates; evaluation from student following formal mentoring, clinical teacher, higher degree student supervision.

#### **4. Change agent**

Demonstrated by: membership of professional local or international organisations, forums, advisory groups, taskforces, committees; being a recognised spokesperson; publicity opportunities, multidisciplinary collaboration across academic and or professional organisations; evidence of involvement in development or redirecting of a nursing role; lobbying for legislative change to support nursing initiatives; grant writing success.

#### **CONCLUSION**

Clinical leadership is complex and difficult to determine. Clear parameters have yet to be established that conclusively evaluate competency in this area. The performance indicators and competencies in the ANMC National Standards for Nurse Practitioners (2006) that are intended to measure leadership do in fact measure important qualities, however it is not established that these qualities accurately reflect those of leaders.

The NP movement in Australia is relatively young compared with some other nations and leadership is a dynamic and evolving quality that takes on different meanings according to context. Definition of leadership is open to interpretation and there is no generic definition that fits across different contexts. Often those defining leadership do not distinguish between leadership and management. For many NP candidates or beginning NPs, leadership qualities may be in the developmental stage. This needs to be recognised when assessing NP candidates.

As the criteria for leadership is complex when applied to NPs and its definition and practical application is largely unclear, those seeking to assess those qualities should be creative and flexible in their approach. Leadership qualities are worth developing and will assist the further development of the role of the NP. NPs are and will remain under scrutiny from others because of their extended practice and need to continue to provide exceptional clinical care, as well as promote nursing and advocating for nurses and patients at all levels of the health care service. Additionally, the degree of leadership skills and

attributes demonstrated by different NP candidates may vary considerably.

Until leadership is clarified with respect to NP's roles, assessment for NP candidates in this area should allow for discretion by both the NP candidate and the assessment process.

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# Legality, morality and reality - the role of the nurse in maintaining standards of care

## AUTHORS

### Mary Chiarella

RN, CM, Dip N.Ed. LLB (Hons) (CNA), PhD, FRCNA  
Professor of Clinical Practice, Development and Policy  
Research, Faculty of Nursing, Midwifery and Health,  
University of Technology, Sydney, New South Wales,  
Australia.  
mary.chiarella@uts.edu.au

### Elizabeth McInnes

BA(Hons); Grad Dip App Sci (Nursing); MPH  
Project Officer for Policy Research and Development,  
Faculty of Nursing, Midwifery and Health, University of  
Technology, Sydney, New South Wales, Australia.  
Email: elizabeth.mcinnnes@uts.edu.au

## KEY WORDS

law, ethics, power, status and image of nursing,  
retention

## ABSTRACT

### Objective

This paper explores the legal and ethical frameworks that inform nursing practice and health care cultures. Using methodologies informed by critical race and feminist jurisprudence (also called 'outsider scholarship'), images of nursing and the positive and negative effects of these images and their legal, moral and ethical impact on nursing practice, are explored. This exploration assists in exposing some of the power structures and assumptions which govern contemporary nursing practice and standards of care and which impact on factors such as workforce retention.

### Setting

Applies to all settings in which nurses' practise.

### Subjects

Nurses, other health care professionals and patients

### Primary argument

Examples from case law are used to illustrate the relationship between image and power and how these affect legal and moral frameworks and the realities of the workplace for nurses. This is done by examining the law, as a form of insider (whereby the world is described in terms of pre-existing power structures) and outsider story-telling (whereby stories are challenged to reflect experiences). Five dominant and recurrent images of nursing emerge from case law analysis. These have implications for: the way in which nurses respond to critical situations which involve the adoption of a moral stance; nurses' legal and ethical status, and; the environment in which nurses' practise.

### Conclusion

Each of the images of nurses described in this paper is still present in both recent case law and workplace practice. These images have deleterious effects, most particularly contributing to feelings of powerlessness in the workplace and affecting nurses' ability to be 'heard' when patient safety is at stake. While some images give the nurse a degree of moral (and clinical) responsibility, there is no promise of power.

Both the inability to influence patient care and an unmet need to feel valued and appreciated contribute to nursing workforce attrition. A complex mix of solutions needs to be implemented to achieve improved workplaces, patient outcomes and retention rates. The promotion of a safety and quality agenda; promoting strategies for self care; well developed clinical career paths; implementing clinical supervision, and introducing Magnet organisation reform, are among the important solutions for addressing these issues.

## INTRODUCTION

This article explores the legal, moral and ethical frameworks that inform nursing practice, how these have shaped and been shaped by images of nursing, and the positive and negative effects of these images of nursing. Case law is used to illustrate the points raised and suggestions are made to help bridge the gap between legality, morality and workplace reality for nurses.

The legal frameworks that inform nursing practice include the provisions within registration statutes, codes of conduct and other advice through registering authorities; civil requirements in common law and statute law; industrial requirements and sanctions and criminal sanctions. Moral and ethical frameworks are enshrined in professional codes of ethics and also in normative ways that have developed in response to historical and sociological developments such as the 'ethic of obedience' (Chiarella 1990); the 'ministering angel' ethic (Chiarella 2002) and the 'tyranny of niceness' (Walker 2003). Walker describes the 'tyranny of niceness' thus:

*The pre-eminent value inherent in the technique of sensibility of 'being nice' is one that insists that overt conflict must be avoided wherever and whenever possible. This sensibility is sanctified in our culture in the notion that a good woman does not contradict and a nice woman does what she is told. By extension then, a good nurse takes what she finds (or is given) and does not question. A nice nurse therefore must be a good nurse (Walker 2003 p.4).*

*The behaviour this technique initiates is one of backing off, assuming a passive posture, or silencing oneself. It is a technique of sensibility which shapes (us) in pervasive and powerful ways. The reciprocal behaviour such a technique of sensibility elicits is one that is generally tacit; it does not usually ever come to expression. The combination of value, behaviour and response leads to a form of silent but mutual agreement between the individuals engaged in the conflict situation...it gently insists that no further dialogue is needed to resolve the situation (Walker 2003 p.145).*

The 'tyranny of niceness' and the images of the nurse described below have influenced the legal, moral and ethical frameworks that have developed in nursing and most particularly contribute to feelings of powerlessness in the workplace and affect the nurses' ability to be heard when patient safety is at stake.

## DISCUSSION

### Images and stories of nurses with reference to case law

A study analysing the status of the nurse in law, society and scholarship using methods grounded in critical race and feminist jurisprudence, known as forms of outsider scholarship, examined 180 cases from 1904 to 2002 (Chiarella 2002). In this study, the law is described as being about storytelling, with stories created by insiders (stock stories), who describe the world according to their own power structures, and by outsiders, who try to challenge these stories to reflect their own experiences (outsider stories). A stock story is defined as:

*'...the one the institution collectively forms and tells about itself. The story picks and chooses from among the available facts to present a picture of what happened: an account that justifies the world as it is' (Delgado 1989 p.2421).*

Where stock stories reflect accounts that '*... makes sense, is true to what the listeners know about the world, and hangs together*' (Scheppelle 1989 p.2080), outsider stories are those which are told '*to attack and subvert the very institutional logic of the system*' (Delgado 1989 p.2429) and which provide a means to expose '*the perceptual fault lines*' (Scheppelle 1989 p.2082). Outsider stories can be seen as troublesome, upsetting or interfering and the natural tendency is to ignore them because the established order already works very well for those in power.

Five recurrent images emerged from the case law analysis and, it is argued, these provide the backdrop for the ethical and legal practice frameworks that have developed in nursing. These images are: domestic worker; ministering angel; doctor's handmaiden; subordinate professional



and autonomous professional. These images provide themes as stock and outsider stories and are classified accordingly. Firstly, as stock stories, in which nurses are under control. The associated images are the nurse as a domestic worker; doctor's handmaiden; and subordinate professional. Secondly, as outsider stories (nurses are in control); the nurse as a ministering angel or autonomous professional.

### **Outsider stories and their effects on nurses' legal, moral and ethical status**

For the purposes of this article, outsider stories are used to illustrate the effects of stories on nurses' legal, moral and ethical status. The ministering angel was the earliest outsider story and is full of ethical resonance. It was fostered by Florence Nightingale to counteract the Sarey Gamp image, the image of the drunken and disreputable nurse described by Charles Dickens, who was a danger both to herself and the households she visited (Dickens 198). This image of the ministering angel served nurses well in a Victorian 'man's' world enabling them to maintain propriety in order to conduct the professional experiment of 'respectable' women at work, and to some extent it still serves nurses well in terms of public relations. However there are downsides to this 'ministering angel' story which negatively impact on nurses and nursing. These include the fact that nurses tend to be essentialised as nun-like creatures; which in turn creates the public view that 'virtue is its own reward'; which in turn instils within it concepts of self-sacrifice; creates an environment of permission to suffer and maintains the notion of a 'cloistered' profession kept away from the 'real' business of the health care world (Barber and Shadbolt 1996).

The idea of the nurse as an autonomous professional began with Ethel Bedford Fenwick in 1908, who stated that: '*the nurse question is the woman question*' (cited in Dock and Stewart 1938 p.254). The features of this story are that it originally addressed the pursuit of professional equality through a 'sameness' model (MacKinnon 1987 p.33); it sought to break free from doctor's handmaiden and subordinate professional images through the pursuit of autonomy

in self-regulation, self-management and the setting of professional and educational standards (Chiarella 2002). This autonomous professional image has been the genesis of both the regulatory and industrial framework in which nurses practise and has been arguably quite successful in establishing the autonomy of the profession and in the setting of standards.

However the main downside of this story is that this model has been pursued without redress to the power imbalances in the way in which health is structured. It has not addressed (and may even have perpetuated) the cultural problems, such as institutionalised powerlessness, which affect retention (Chiarella 2002). Nor has it met the need to foster confidence and promote innovation within the profession. It has also been focussed predominantly on nursing, rather than health (Chiarella 2007 p.41). Each of the images described here are still present in both recent case law and workplace practice to some extent; the examples below demonstrate the effect exerted by these images.

### **Factors which influence nurses' ability to deliver quality patient care**

Thirty years of research has consistently found two reasons why nurses leave the profession. The first is they feel unable to deliver the quality of care they believe is required and the second is they feel they are not valued or respected (Chiarella 2002 p.344). The factors which influence nurses' ability to deliver quality patient care are: a multidisciplinary team approach to patient care delivery (this is well embedded in the safety and quality agendas); the ability to provide care which satisfies nursing and patient expectations; a formula to ensure reasonable workloads (which ought only to be a short-term solution) and a work environment which fosters nurse autonomy and control over practice in order to provide safe patient care (Duffield et al 2007).

A multidisciplinary team approach and the recognition of nursing expertise through clinical career paths are also important. Recently there has been a body of international research that suggests that skill mix changes generally require a change of role for



nurses rather than for other health care professionals but that this occurs with no increase in nurses' autonomy (Duffield et al 2007). One of the results of this situation is that: *we can only imagine what it has done to the psyche of our profession only to be financially rewarded for not practising clinical nursing* (Chiarella 2007 p.38).

Other issues to be addressed include the need to attend to power imbalances and the need to have a system based on practice expectations, not personalities. Because nurses can be seen concomitantly as both advanced practitioners and as subordinate to doctors, this creates a level of uncertainty and ambiguity in terms of nursing's role. Power imbalances in workplace culture thus needs to be addressed from both a medical and nursing perspective because: *power at its peak becomes so quiet and obvious in its place of seized truth that it becomes, simply, truth rather than power* (Matsuda 1990 p.1765). Such imbalances are amply illustrated by examining some examples from case law.

#### **Addressing the power imbalance from a medical perspective**

There are several cases which demonstrate that the only strategy nurses still possess to influence patient care in situations of concern is to bring a problem to the attention of doctors. They cannot force doctors to act. Cases such as *MacDonald v York County Hospital and Dr Vail* (1973) and *Bolitho v City and Hackney HA* (1998), both of which were focused on the legal question of causation - that is the person's action or inaction directly caused the harm to the patient, only serve to highlight the nurses' dilemmas. The patient in the first case lost his leg; the child in the second case suffered catastrophic brain damage. In both cases, the nurses had expressed their concerns about the patient on a number of occasions. In both cases, the doctors did not respond to the nurses' concerns, originally in MacDonald and repeatedly in Bolitho.

In MacDonald, the nurses were found not to be negligent on grounds of causation. In Bolitho, although the doctors' failure to attend was found to be a breach of duty, they were found not to be

negligent. In both cases the finding of no negligence was because the doctors gave evidence they would not have altered their treatment even if they had seen the patients. In both cases the doctors did not see the patients until it was too late to even attempt to prevent the damage occurring. Both cases were determined by the judges without comment as to the distress and difficulties the nurses might have experienced, both in terms of trying to contact the doctors and afterwards in the knowledge they had been powerless to reverse the course of events.

In *Re Anderson and Re Johnson* (1967) and the *Inquest touching the death of PDP* (1994), the fact that doctors failed to take action on the expressed concerns of the nursing staff similarly elicited no comment. Both these patients died.

In each of these four cases the nurses expressed their professional, clinical opinions to the doctor on the patients' conditions. In the first two cases, the doctors gave sworn evidence to the fact that, regardless of the outcomes, they would not have heeded the nurses' concerns and changed the treatment. In the latter two cases, the facts emerged that the doctors manifestly ignored the nurses' concerns and continued on their clinically determined route to the detriment of the patient.

Such power imbalances impact on patient safety because nurses are unclear as to their rights and responsibilities. They cannot compel doctors to act. These dilemmas are known to impact on retention of nursing staff (Aiken 2006). Lessons from the safety and quality agenda may assist in addressing issues of power imbalances in health care culture that affect patient outcomes. These include: learning from the aviation industry; the work of James Reason in human factors and the concept of 'graded assertiveness' (Runciman et al 2007). Human beings make mistakes (Reason 1990) and health care professionals are no exception (Brennan et al 1991). The aviation industry has undertaken a considerable amount of work in this area and has developed the concept of crew resource management. This includes concepts such as graded assertiveness, which creates the imperative for each member of the aviation team to

speak out forcefully if they consider there is a problem through a process of escalating their concern (Flight Safety Foundation 2000). Such an expectation is an imperative for health care practice if cases such as the ones discussed above are to be avoided. There needs to be provision made for some form of intervention which is instantly recognisable to both doctors and nurses as a 'major clinical dispute procedure'. It could only be invoked if the nurse considered on reasonable grounds that the patient's life or wellbeing was in serious danger. A refusal to acknowledge and act on the nurse's concerns in such a situation should carry significant sanctions for medical personnel. This would provide the nurses with some framework within which to operate and would provide some legitimate recognition of their moral authority and help to overturn both the ethic of obedience and tyranny of niceness that act to constrain the individual from challenging medical authority (Chiarella 2002).

#### **Addressing the power imbalance from a nursing perspective**

Examining the power imbalance from a nursing perspective often relates to workload and its concomitant stress. *I knew I was too tired to take care of the sicker patients but you can't speak out - you are seen as a whinger* (ACSQHC 2003 p.12). Similarly there is a need to address horizontal violence - the oppression of nurses by nurses, a characteristic of groups who perceive themselves to be oppressed or powerless which has its genesis in the socio-pathology of oppressed groups (Fanon 1963). *I was pretty sure it was the wrong dose - it just seemed too much for the patient - but when I tried to say something I was told "What would you know - you're all the same straight out of university and you think you know more than the rest of us"* (ACSQHC 2003 p.12).

Proposals to address workload issues include having strategies for review of workloads such as the Reasonable Workloads Committees in NSW (NSWNA 2004) and ongoing solutions such as workload research (Duffield et al 2006). Duffield et al (2007) found nurses were more likely to be satisfied with

nursing if they experienced positive leadership and autonomy and control over their practice. Addressing the impact of the socio-pathology of oppressed groups on workplace culture and the associated issue of horizontal violence is also needed (Chiarella, 2002).

Thirty years of research on why nurses leave the profession reveals two key reasons - a sense of not being valued and a perceived inability to influence the quality of care the patient receives (Chiarella 2002). There is therefore a need to ensure that nurses feel valued and there are many strategies that can be employed to address this. These include developing strategies for self-care (Skovholt 2000); the availability of clinical supervision to enable better management of 'unfinished clinical business' when nurses have been involved in adverse events where they have felt unable to influence the course of the outcome; improved and coherent clinical career paths so that nurses are appropriately and consistently rewarded for practising clinically; and Magnet organisation reform, which is discussed below.

#### **Correlation between retention and patient outcomes**

The research evidence demonstrates that changes to cultures, professional expectations and roles result in improved patient outcomes. In the 1980s, the American Academy of Nursing (AAN) conducted a study of USA hospitals to identify the organisational attributes that were successful in recruiting and retaining nurses during a national nursing shortage. The top hospitals shared certain measurable characteristics, each of which was predicated on recognition of nurses' contribution to patient care and the environment of the facility. These organisations were described at that time as Magnet hospitals.

The characteristics of a Magnet organisation are effective and supportive leadership; nursing staff involvement in hospital decision making; commitment to professional clinical nurse qualities; participatory management; autonomy and accountability; and a supportive environment (Buchan 1999). The hospitals which consistently sustained these characteristics not only had significantly higher

retention rates than other similar hospitals (Aiken et al 2002); they also demonstrated significantly lower medical mortality rates and significantly improved patient outcomes. Adverse patient outcomes measured in the international research which were positively influenced by the introduction of Magnet hospital status include injuries from falls, medication incidents, pressure ulcers, post-operative pneumonia and urinary tract infections, gastro-intestinal bleeding, failure to rescue and death (mortality rates) (Aiken 2006; Aiken et al 2002). Yet to this day these extraordinary findings have not become the foundation for organisational reform in Australia. This suggests that the way power relations have evolved and how they have been maintained over the decades have ensured that health care delivery is firmly ensconced within a largely biomedical paradigm (Lupton 1994).

## CONCLUSION

The legal and ethical frameworks that inform nursing practice have both shaped and been shaped by images of nursing. The effect of these images, contribute to feelings of powerlessness in the workplace and affect nurses' ability to be heard when patient safety is at stake. Exploring the often inconsistent images and roles of the nurse through 'stories' told in court is one way of examining how these stories are reflected in the working relationship between doctors and nurses and consequently contribute to cultures which are characterised by power imbalances and lead to an increased likelihood of diminished patient outcomes and work dissatisfaction.

The examples from case law illustrate that often the only strategy nurses possess when they are concerned about a patient is to bring the problem to the attention of doctors. However while some images give the nurse a degree of moral (and clinical) responsibility, there is no promise of power. Even contemporary images of nursing as 'autonomous professional' are problematic. For example, nursing has favoured this model without considering any power imbalances in the health system and it does not

address (and in doing so may even have perpetuated) the cultural problems which affect retention. While nursing images change, the same power structure dominates.

To bridge the gap between legality, morality and reality requires a complex mix of solutions. This includes fostering the ability to influence patient care and feeling valued and appreciated in the workplace. But the end result is worth it. The data demonstrates that addressing cultural factors improves retention of nurses and will significantly improve patient outcomes.

## RECOMMENDATIONS

To address the issues described above the following suggestions are proposed:

- the promotion of a safety and quality agenda that honours and recognises the right of nurses to challenge practice and to be heard when they do;
- promoting strategies for nurses to engage in self-care within the workplace;
- establishing well-developed clinical career paths that provide consistent and coherent rewards for clinical nursing work;
- providing clinical supervision to assist nurses to address the psychological effects of adverse events; and
- a commitment to the implementation of Magnet organisation reform.

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# Sampling methods: methodological issues involved in the recruitment of older people into a study of sexuality

## AUTHORS

### Susan Gledhill

RN, RM, BHA, MHA, PhD Candidate, Queensland University of Technology, Queensland, Australia  
s.gledhill@student.qut.edu.au

### Jennifer Abbey

PhD, BEd(Nursing), Dip Teach(Nursing), RN, FRCNA  
Professor of Nursing (Aged Care), Faculty of Health,  
Queensland University of Technology School of  
Nursing, Dementia Collaborative Research Centre,  
Brisbane, Queensland, Australia  
j.abbey@qut.edu.au

### Robert Schweitzer

BSocSci(Hons), MA(ClinPsy), PhD  
Associate Professor/Course Co-ordinator: Master  
of Clinical Psychology, Queensland University of  
Technology, Brisbane, Queensland, Australia  
r.schweitzer@qut.edu.au

## KEY WORDS

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## ABSTRACT

### Objective

Sexual desire experienced by people over 65 years of age is a sensitive topic deserving serious and ethical research. The recruitment of participants into a potentially sensitive study poses particular difficulties including ethical challenges such as informed consent and confidentiality. This paper, drawing on a study of sexual desire in an older aged population group, outlines a range of purposive sampling methods that resulted in a high rate of recruitment, thus validating the methodology employed. The paper reports the outcomes of four recruitment strategies: word of mouth, advertising, community-based seminars and

direct solicitation that were employed in a study on sexual desire and ageing. The paper aims to encourage researchers and health professionals to consider looking more closely at topics often considered to be socially forbidden and outside the ambit of nursing research. Some of the ethical issues involved in recruitment for the study will also be considered.

### Setting

An urban older population group living in the community.

### Subjects

Fifteen women and 21 men aged 65 years and over.

### Primary Argument

There is little research exploring sexual desire in older people due in part to the methodological demands inherent in conducting such research. Most research which has been undertaken in this area employs quantitative rather than qualitative methods.

One reason for the paucity of qualitative data on sexual desire and ageing is the perception that older people are reluctant to discuss intimate details of their lives. In addition, older people are demographically situated within a marginalised and therefore vulnerable population group, creating an ethical challenge for health related research.

Consequently, it is imperative that researchers give due consideration to accepted ethical principles that govern properly conducted research and that are critically important when researching a potentially vulnerable population group. This paper outlines four sampling strategies and discusses some of the ethical issues involved in recruiting older people into a qualitative study. The paper argues that the findings will add to an understanding of a key element of the experience of sexual desire in older people and some of the ethics involved in achieving that understanding.

### Conclusion

The adoption of a variety of sampling approaches has been shown to be successful in recruiting members of the older population into a phenomenological study exploring sexual desire.



## INTRODUCTION

Purposive sampling is frequently selected for obtaining data in qualitative research. This methodology is both highly suitable and challenging for sexuality research (Wiederman and Whitley 2002). Given the sensitive nature of sexual desire and the cultural and social aspects that are associated with the older generation, the use of purposive sampling and an inductive methodology utilising in-depth interviews is one of the most appropriate methods for exploring sexual desire. Purposive sampling is often used when small samples are studied using intense, focused methods such as in-depth interviews (Curtis et al 2000). The in-depth interview offers a unique means of understanding complex human behaviour because the method is not limited by predetermined classifications found in deductive studies which demand 'best fit' but rather, results in the generation of large amounts of valuable data obtained from a free flowing communication process (Punch 1998). This methodology provides access to sensitive information from a population group who may have had limited access to sex education in their youth, restricted opportunities for open discussion within their own peer group (Gott and Hinchliff 2003) and who are likely to be reticent in discussing sexual desire unless they voluntarily choose to respond to an invitation to participate. The methods applied in gaining access to sensitive information also raise several ethical challenges including informed consent, confidentiality, reciprocity and voluntary participation; challenges that require careful consideration of the principles of integrity, autonomy and respect.

The decision to conduct a phenomenological study into sexual desire and ageing was based on one main avenue of exploration: to explicate and describe the meaning of 'sexual desire' from a perspective which would lead to a greater understanding of the experience of sexual desire in an older population group. The questions underpinning the study were 'What happens to sexual desire when an older person loses their partner or when their partner is no longer physically capable of engaging in the physical act of sexual intercourse?' The methods to be outlined are

based on a study which sought to investigate whether older people experienced feelings of unfulfilled sexual desire and, importantly, to understand the meaning associated with such experiences for the person in his or her social context. The study also explored whether people who identified feelings of unfulfilled sexual desire perceived that those feelings impacted on their sense of wellbeing. Ethical implications remained at the forefront of all methodological decisions that occurred throughout the study. Before discussing the sampling methods, the research process and participant demographics are outlined to provide a context for examining the recruitment of older people into a challenging study.

**Table 1: Research stage and design**

General study design	Phenomenological study using multiple in-depth unstructured interviews
Primary outcomes	
Phenomenological	Description of the meaning and experience of sexual desire from the older person's perspective An understanding of sexual desire and implications for wellbeing
Clinical	Inform health professionals and carers about older age sexual needs Sexual health care and education for older people within holistic health Promotion of healthy ageing
Psychosocial	Empowerment of the older person
Sample size	Thirty six (36) people of both gender aged 65 years and older
Recruitment sources	Word of mouth Advertising Community seminars Direct solicitation
Data explication	Interpretive phenomenological analysis (IPA)

## RESEARCH PROCESS

The first step in the research process was to seek participants who were aged sixty five years and over and who would be willing to share their experiences



of sexual desire. While there was no pre-determined number of participants, it was anticipated that twenty participants would be a reasonable target figure, conforming to the norm of small recruitment numbers typical of qualitative research using in-depth interviews as the method of data collection (Clarke and Jack 1998; Miles and Huberman 1994).

To create more variability among the group, older people of alternative sexual orientations of both genders were actively sought out. The research design was a phenomenological study using multiple in-depth interviews with men and women aged sixty five years and older who lived in the community (see table 1).

### OVERVIEW OF PARTICIPANT DEMOGRAPHICS

All the participants in the study were white Caucasian with varying socioeconomic backgrounds, ranging from older people in paid employment, pensioners in public housing to self supporting retired persons. All participants lived independently and the majority reported good health. One participant had been diagnosed with a terminal illness and endeavoured to maintain social and physical activities while he was still able.

Of the 21 men interviewed, five identified as homosexual. Two of the five men who identified as homosexual had previously been married and had children. The other three men who identified as homosexual had never married. Two of the men interviewed who identified as homosexual were in a long term relationship (> 40 years). All the fifteen women interviewed reported they were heterosexual and all were, or had been, married.

The largest group were in the 70-74 year age range (31%), followed closely by the 65-69 year age range (28%). The majority were married or in a live-in relationship (47%) and lived in their own house (59%). Junior Certificate or equivalent was the highest level of education attained by 44% of participants, while 30% attained tertiary level and 14% did not receive schooling beyond primary school level (see table 2).

**Table 2: Participant demographic characteristics**

Characteristic	Male (n=21)	Female (n=15)	Total (n=36)
Age			
65-69	6	4	10
70-74	8	3	11
75-79	3	6	9
80-84	2	2	4
85-90	1	0	1
>90	1	0	1
Relationship status			
Never married	3	0	3
Married/defacto	11	6	17
Widowed	3	3	6
Divorced/separated	4	6	10
Education			
Tertiary/college	6	5	11
Trade certificate/diploma	3	0	3
Senior school (16 to 18 years of age)	0	1	1
Junior school (12 to 15 years of age)	10	6	16
Primary school (8 to 11 years of age)	2	3	5

### SAMPLING METHODS

The four purposive sampling methods utilised were: word of mouth; advertising in local community and media; seminars presented to community groups; and direct solicitation.

#### Word of Mouth

Word of mouth required the support of other people to participate in the recruitment process by approaching potential participants on behalf of the researcher. For this study it was often a health professional colleague who was involved in the recruitment process. Potential participants were subjectively assessed as meeting the study criteria in terms of age, command of the English language and willingness to participate in a research project concerning disclosure of sensitive information about their sexual experiences.

An assurance of anonymity and confidentiality was emphasised on an information sheet provided to potential participants. Interested volunteers were

invited to contact the researcher directly or give permission for the researcher to initiate contact and provide further details about the study at which time an interview was arranged if the person agreed to participate. Interviews were conducted in the non-threatening environment of the participant's home or at a location of their choice. Most interviews took place in the home setting. Alternative locations included a workplace, a park and a coffee shop.

### Community Advertising

Advertising for the study required the distribution of flyers to shopping centres, senior citizens centres and other community groups where the older population was likely to meet. Flyers were also distributed in local libraries, adult shops, a University of the Third Age and a general practitioner practice who agreed to display the flyer (see figure 1).

### Media Advertising

Local media and a homosexual oriented magazine were approached with regard to promoting the research project and publishing articles about the study and a call for volunteers. The university media department organised a media release creating widespread interest and generating a number of requests from older people to participate in the study.

**Figure 1: Local community advertising flyer**

**Older Age Sexuality  
TABOO or not TABOO!**

Older volunteers required to participate in a university research project on sexual desire in the older population

Are you

- Aged 65 years or over and living independently
- Male or female
- Married, widowed or single
- English speaking
- Willing to be interviewed about sexual issues

You will

- \* Be interviewed in your own home
- \* Not incur any costs
- \* Be helping us to gain a greater understanding of an aspect of older age sexuality

Identifying details relating to the interview material will be kept strictly confidential

### Seminars

Community seminars involved a large mail out to various senior community groups, day respite centres and retirement villages seeking an invitation to present a session on the topic with a view to recruiting potential participants. Non-respondents to the letter were followed up with a phone call two weeks later. The seminar took the form of an information session about the research project, background to the study, and significance of the project with an emphasis on health and wellbeing. Each seminar provided an opportunity to assess audience interactivity and to note any particular issues arising during question time. At the end of each session attendees were invited to ask questions and to contact the researcher if they were interested in participating in the study. For this purpose, contact cards were distributed so that each person had the opportunity to discreetly arrange an interview at their own convenience.

### Direct Solicitation

Direct solicitation occurred on two social occasions when opportunities arose for the researcher to approach two older people by chance, initiating a conversation about the research project and inviting participation in the study.

## RESULTS

### Word of Mouth

Word of mouth yielded the largest number of participants and was the simplest mode of recruitment (see table 3). All 17 participants recruited through word of mouth gave permission for the researcher to contact them rather than initiating contact on their own initiative. Several unsuccessful approaches to friends and relatives were reported, which in itself, provided information about the reaction of some older people when approached about discussing sexual issues (Gott et al 2004). For example, those that refused did so with reported humour rather than with a more negative response.

**Table 3: Source of participant recruitment**

Source	Male	Female	Total
Word of mouth	11	6	17
Advertising	7	5	12
Community seminar	3	3	6
Direct solicitation	0	1	1
Total	21	15	36

**Advertising**

Twelve participants were recruited in response to advertising. Five participants responded to a local newspaper article; two in response to a flyer placed in a shopping centre; and five participants were recruited as a direct result of the media release. The media release was certainly influential in generating recruitment numbers. This strategy resulted in nationwide media exposure that included researcher interviews and publication of several newspaper articles. Ten people responded, five of whom were suitable for inclusion in the study. Six respondents resided interstate and were initially excluded due to the difficulty of conducting in-depth interviews and follow-up over the telephone. The one exception was a participant who maintained telephone contact for over a year until travel made an interview and follow-up possible. The persistent interest in being included in the study highlights just how important it is for some older people to have their voice heard.

**Community Seminars**

Letters were sent to 50 community clubs and organisations that catered to the older population. Ten organisations responded and arrangements were made to present a seminar to their organisation. The seminar was approximately 45 minutes duration with 15 minutes question time. Attendee numbers ranged from 12 to 90 with an average of 40 people at each seminar. Six people were recruited in response to a community seminar.

**Direct Solicitation**

Direct solicitation was an opportunistic strategy based on incidental meetings with older people who were subjectively considered likely to meet the study inclusion criteria. Two were directly approached to participate in the study; one male and one female,

however only the female subsequently participated. The male provided telephone contact but remained elusive after several attempts at contact.

**DISCUSSION**

The demographic profile shows a relatively homogenous population group which is reflective of the older population demographic within the geographical sampling area and of the cultural and socioeconomic background of the researcher's peer group and colleagues who were involved in the recruitment process.

The sampling methods being discussed need to be viewed within the context of the study. By way of context, it was assumed that females would be more likely to discuss sexual desire than males and therefore female participants would outnumber male participants. The assumption was based on life experiences suggesting that women were more comfortable than men in discussing sensitive issues such as intimacy and body function. The assumption was not borne out in the study results with 58% of participants being male and 42% of participants being female. All five of the interstate people excluded from the study due to distance were also male. In addition, six male participants initiated follow-up contact with the researcher. It is difficult to provide a reason for the gendered difference in recruitment numbers and interest in participation. Subjectively, social isolation may be the factor driving initiation of contact rather than a real desire to contribute to the study since five of the six participants who initiated follow-up were single and lived alone although it is also possible that these older male participants had not had many opportunities to discuss sexual desire and embraced the opportunity to do so.

**Word of Mouth**

Word of mouth as a recruitment strategy was dependent on the willingness of friends and colleagues, most of whom were health professionals, to approach their friends and relatives and broach the subject of sexual desire which would not have been a particularly easy thing to do. Therefore it was usually a health professional who introduced the subject to

a potential participant which may have influenced consent for the study. Interpretation of informed consent implies autonomous self-determination and a balance in the power relationship between researcher (or those acting on behalf of the researcher) and participant. Older people tend to have a high regard for education and knowledge; social benefits that were not always available to them. For many older people in Australia raised in times of economic hardship there was an expectation they would contribute to the family income as soon as they were able-bodied, hence many older people did not have access to a formal education beyond primary level. Consequently, a request from a health professional in a potentially more powerful position may have influenced participation in the research project. To equalise the power relationship, the potentially vulnerable participant was provided with a detailed information sheet emphasising the voluntary nature of the project and of their right to withdraw from the project at any stage. All aspects of the project including purpose, method, risks, benefits and anticipated outcome were verbally conveyed as well as provided in written form.

Confidentiality was important for all participants and particularly for those who were recruited by word of mouth. The researcher advised each participant recruited through word of mouth that their recruitment into the study would not be disclosed to the person who made the initial approach. Disclosure of that information would be their own decision thus adhering to the ethical principles of integrity, respect and autonomy.

The benefits of word of mouth were that a wider target population group could be reached with no financial outlay and minimal time costs. The only potential problem was in offending the people invited to approach their friends and relatives. For this study, by drawing on a circle of health professional friends and colleagues, the risk of offence was minimised as most health professionals have an appreciation of the benefits of research that adds knowledge and understanding, particularly in relation to an under-researched area. As a sampling method, word

of mouth was devoid of cost, required very little effort and yielded the best response.

### **Advertising**

There was something of a snowball effect from community advertising and a blurring of the boundaries between advertising and word of mouth, with early respondents drawing attention to the advertisement amongst their friends. In one case, a respondent informed the researcher that she had removed a flyer with the specific purpose of discussing the research within her social circle. The researcher was then invited to talk to the small group (n=5). Two members of the group were subsequently included in the study. Confidentiality issues were raised when participants had knowledge of another person's inclusion in the study. However, provided that confirmation of inclusion was disclosed by the participant and not by the researcher ethical principles were not breached. In both of the aforementioned cases interviews were arranged outside of the group environment and in private. In the study, when the researcher was aware that a participant had responded to the advertisement on the advice of a friend, confidentiality of the study was re-emphasised. The creation of a relationship built on trust and respect between researcher and participant was critical. Trust was built on the ethos of diligent adherence to confidentiality and by emphasising that all data would be de-identified. Respect was achieved through the researcher's awareness of the responsibility to create rapport with each participant and to develop a research relationship that was responsive to their needs. For example, in negotiating the conditions for the interview and in editing out information that the participant did not wish included in the study.

Advertising in a magazine published specifically for the homosexual community was fruitful in contributing to the diversity of the study with two of the male participants who identified as homosexual being recruited through magazine advertisement.

In relation to the media release, while the resulting recruitment numbers were small, the topic created a great deal of interest and discussion thereby

achieving one of the overall aims of the study, namely, raising awareness of older age sexuality.

The benefit of community advertising was the ability to reach a wide range of people, targeting the population group of interest by advertising in places where they were most likely to be exposed to the advertisement. The economic costs of advertising included the expense and time required for production and distribution of advertising material and the mail out to media and other community groups. The cost involved in the distribution of flyers was far greater than the benefit and could not be recommended as a productive sampling strategy.

The only problem encountered with media exposure was timing. By the time the media release occurred, anticipated participant numbers had already been achieved. As a sampling method widespread media advertising is very effective and should occur early in the recruitment process and with the researcher prepared for the time commitment involved in media exposure.

### **Community Seminars**

The most personally rewarding and most time consuming, but least effective recruitment strategy was in providing seminars to community groups and calling for volunteers. Presenting seminars was personally rewarding from the perspective of providing an opportunity to present the research project to a receptive audience and receive immediate feedback. It was also the most time consuming strategy with regard to contacting community organisations, preparation and presentation and the least effective strategy given that six participants were recruited after ten community presentations to a total of approximately 400 potential participants.

However this strategy allowed the researcher to contend with one of the fundamental ethical dilemmas involved in the research process; the conflict between protection of human rights and the need to generate knowledge. In this case, the call for volunteers in a public forum was made in such a way that privacy and confidentiality were upheld at

the same time as the benefits of the research project were emphasised.

One of the issues with contacting community organisations was the role of the gatekeeper. Although ten community groups arranged a seminar, there was poor response from the other 40 contacted. One secretary telephoned a day after the letter would have been received with the advice that 'members would not be interested' leaving the researcher wondering how many members were involved in the decision.

Another issue with community seminars is the long lead in time required. Many organisations have organised their speakers up to a year ahead so there can be a considerable delay between contacting the organisation and presenting the seminar. One effective strategy was in leaving contact details and being available to 'fill in' when a pre-arranged speaker became unavailable with little notice. Therefore, preparation and availability became important.

Possible reasons for the poor recruitment result from community seminars may be peer pressure, with some older people not wanting to be identified organising an interview centred on sexual desire although this dilemma was countered by providing an opportunity for interviews to be arranged in private and at the discretion of the potential participant. Another reason may have been the high level of demand placed upon older people who are involved in social activities. Where contact was made, the researcher was competing with other activities commensurate with the very full lives that many older people lead to negotiate a mutually convenient interview time. A further possible reason for lack of sampling success from community groups of older people is the well documented taboo that continues to surround sexuality and the reality that some older people prefer not to discuss their sexuality. Notwithstanding the potential bias involved, sexual taboos substantiate purposive sampling as a suitable method of gaining access to meaningful information about a sensitive topic which might otherwise never be forthcoming.



The time and effort required in presenting seminars to community groups can be seen as indirectly addressing a criticism of researchers, that is, lack of reciprocity whereby researchers take the information imparted to them without providing a reciprocal benefit that may assist those who provided the information (Mackenzie et al 2007). Conducting community seminars provided an opportunity to raise awareness of the issues involved in understanding sexuality in older people and to promote the topic as one worthy of research. Presenting to community groups can also provide fresh insight for the researcher by paying careful attention to the comments or questions raised at the end of each session and thus contributing to an 'action research' process. Pertinent comments and questions might lead to previously unexplored relevant issues being highlighted. In addition, there was a pseudo Focus Group effect allowing the researcher to access, interact with and receive feedback from a group of people who may not have been otherwise willing to attend a focus group about sexuality.

As a recruitment strategy community presentations were not productive. On the other hand, if community presentations are conducted early in the process valuable information can be gained and incorporated into the research design. Moreover, it can be argued that presenting seminars to community organisations partially fulfils the ethical imperative of reciprocity and the obligation for social research to redress social problems which, for this study, is the social problem of perceived lack of knowledge and understanding of older age sexuality.

Direct solicitation was entirely incidental. On the first occasion the researcher became engaged in conversation with an older person in a social situation and realised that an opportunity to discuss the research and invite participation presented itself. The potential participant exchanged contact details but declined to be involved when later contacted.

On a second occasion, the researcher noticed an elderly lady dancing alone, uninhibited and yet fully cognisant of her environment and actions and requested an exchange of contact details with regard

to discussing a research project. When contacted a few days later the lady, aged 84 years, was recruited into the study.

Literature supports the idea that a direct approach to older people is often successful in gaining access to conduct research as it allows the person approached to view the researcher and form an impression (Wenger 2001). However, in this study direct solicitation was not considered to be a reliable sampling strategy, yielding only one participant. This strategy requires considerable time to recruit sufficient numbers of participants and indeed, raises some ethical questions. For example, direct solicitation could lead to an unpredictable response from the person approached such as anger or distress. Further, there may be an implicit power imbalance if the person approached perceives that the researcher is an academic or a health professional in a position of relative power and is potentially intimidated into participation. Voluntary informed consent may be an ethical issue. To address this issue, we propose that direct solicitation includes an additional step whereby the potential participant is provided with detailed information on the study including a phone number and provided with the request that they phone the researcher back 24 hours later if, after consideration, they are still willing to participate in the research interview, thus exercising their right to self-determination.

## ETHICAL CONSIDERATIONS

The demographic profile of participants in this study is reflective of a relatively homogenous population group who are often marginalised by what is perceived to be a youth-oriented society in Australia and therefore are a vulnerable population group. Marginalisation stems from the reality of being an older person in a youth oriented society which has physical, psychological and social implications. Physical implications may result from the experience of physical decline in a cultural environment where there is increasing pressure to remain healthy and active. Awareness of increasing physical limitations and from loss of control over aspects of life can lead

to psychological tension in older people. Social factors that increase vulnerability may include isolation, absence of family support and lack of education; particularly with regard to sex education.

Accordingly, conducting research that involves a potentially marginalised and vulnerable population group requires diligent attention to ethical principles such as integrity, respect, autonomy and justice. Some of the ethical challenges that were encountered in this study were informed consent, confidentiality, setting project boundaries and dealing with unrealistic expectations.

Informed consent is always complex, particularly when working with a potentially vulnerable population sample or when dealing with a highly sensitive topic. While approval for the study was granted by the university Human Research Ethics Committee, the issue of informed consent deserves further consideration. The main implications of the formal approval mechanisms were that participants were fully informed of the nature of the study and were willing to provide written informed consent to be interviewed. The issue of informed consent and true voluntary participation is, however, called into question if social isolation is a driving force for participation in the study. In our experience it is often difficult to determine whether social isolation may be involved and to what level isolation influenced participant responses.

In this study confidentiality was paramount and participants were assured that any documentation resulting from the study would be non-identifiable and that raw data would not be distributed to any persons not directly involved in the research. During the interview some participants required reassurance about confidentiality. At follow-up interview participants were advised of the pseudonym allocated to them on the transcription which was offered for review demonstrating concrete evidence that their information had been de-identified. They were also invited to select a pseudonym of their own choice. The importance of reciprocity within the research relationship was considered. All participants agreed that raising awareness of the older person

as a sexual being was important and was their main reason for participation in the study. In effect, involvement in the study allowed their voice to be heard on behalf of the older person although all participants were advised that results from a small qualitative study could not be generalised to the older population. Nevertheless, all participants identified that their contribution was given for the greater good of their peer group. All were advised that they would receive a copy of the final documentation produced from the study and were provided with a progress report throughout.

In conducting research it is very important from the beginning to clearly set project boundaries, to confirm the purpose of the research and to be alert to the need for reiteration of the purpose of the research. In this study the information sheet gave a detailed description of the purpose of the project. However during the research process it was clear that two of the participants had unrealistic expectations with regard to the purpose and outcome of the study. For example, one participant was concerned about the long term effects of domestic violence on female genitourinary function and stressed the importance of raising awareness and exploring that issue in greater depth. Another participant wanted the research to focus on clitoral function and the importance of female satisfaction within a relationship. While both issues are important and can be broadly addressed within the study, the focus of the study was not entirely on either issue. There is an ethical responsibility for the researcher to ensure that the study is committed to the purpose for which ethical clearance was obtained and does not succumb to pressure to become a platform for conflicting vested interests.

## CONCLUSION

Research methodologies addressing sensitive topics deserve special consideration. Purposive sampling is a relatively novel methodology in the area of sexuality involving older people. This methodology has been shown to be an effective strategy in conducting research into a potentially sensitive topic. Purposive sampling was selected for the study because of the

uncertainty involved in determining the response to an invitation to participate in a study about sexual desire in older age. The study used in-depth interviews that yielded valuable data from the perspective of the older person and therefore necessitated targeting members of the population of interest. In the process, a number of ethical challenges were addressed including informed consent, confidentiality, reciprocity and voluntary participation. Due to the sensitive nature of the topic in the context of an older population all available methods of purposive sampling were implemented.

Word of mouth was the most successful strategy but depended on the commitment of friends and colleagues to assist in the recruitment process by acting as the source of referral between the researcher and potential participant. Using contacts within a health environment certainly assisted in the recruitment process but may have implications from a voluntary informed consent perspective. The question is whether the participant agreed to participate because a friend or relative who was a health professional made a personal request. However each of the participants was free to withdraw at time of interview and follow-up and appeared to be more than willing to participate in the study. Voluntary consent was confirmed with ongoing participation at follow up which took place more than a year after commencement of the study.

Community-based advertising involving the distribution of flyers required more time and effort; yielded a poor response; and contributed to the homogeneity of the population group. Media exposure was effective in recruiting participants into the study and in creating widespread interest in the topic and therefore, is the optimal strategy provided that it is implemented early in the study.

Presenting seminars to community organisations brings its own intangible rewards in providing greater insight into the topic of interest, in meeting social research obligations and in providing a means for reciprocity between the researcher and the population group. However as a recruitment strategy, the outcome was very poor when considered in the

light of recruitment numbers. Use of this strategy needs careful consideration of the balance between time, effort, cost and potentially poor results against the intangible benefits of greater insight into the topic and in fulfilling social and ethical demands.

Direct solicitation did not yield a satisfactory result and indeed, in this study, was opportunistic rather than being employed as a methodologically sound technique. Some studies have used this strategy very successfully (van der Geest 2001) however as a sampling method, the researcher should use direct approach with caution and be mindful of ethical implications.

Overall, purposive sampling was very appropriate for this particular study which sought to gain a greater understanding of sexual desire in older age and achieved recruitment numbers far in excess of expectation.

## LIMITATIONS

There are several limitations to adopting a purposive sampling methodology. A small sample size and the non random nature of the sample may place severe constraints on the ability to generalise findings to the general population. It should be noted however that a phenomenological approach centres on gaining knowledge and understanding through the explication and illumination of the lived experience of those involved in the study rather than generalisation to the wider population. Within this paradigm, small sample sizes may not be an issue. For instance, in the current study of sexuality, more diversity would have been achieved if older people from multicultural backgrounds had been included in the sample. However despite a lack of cultural and socioeconomic diversity, the results confirm that some older people are willing to discuss sexual desire if provided with the opportunity. Despite the obvious bias of purposive sampling, the techniques involved in this study can be applied to a larger or different population group and therefore have some applicability on a broader basis.

A second limitation associated with the sampling strategy adopted in the current study was the

'gatekeeper' effect. For example, where letters of approach to community groups may have been 'vetted' by an organisational representative making a unilateral decision on behalf of the organisation with regard to the suitability of including a seminar about sexuality on the program. In that instance, greater diversity may have been achieved if a wider population group had been reached. The gatekeeper effect may have been overcome by more vigorous attempts to contact members of the various community groups and organisations, for example, by taking a participant observational approach and joining the group prior to seeking recruits; a strategy requiring a certain level of time commitment and assimilation with the group.

Greater diversity could also be achieved by approaching specific cultural groups to seek participants from multicultural backgrounds. The sample population for this study was relatively homogenous in terms of ethnic origin, socioeconomic status and urban geographical location and could be used as a basis for comparative analysis with diverse older age population groups.

## RECOMMENDATIONS

To reduce the problem of homogeneity a future study could compare the outcomes of sampling strategies between a regional older population and an urban population within the same peer group to determine whether different sampling strategies would yield significantly different results. Future

studies could also investigate sexual desire as experienced by different cultural, socioeconomic or older age-stratified groups which could be compared to the results of studies such as this one, providing broader knowledge by virtue of increased diversity. In addition, future research could specifically address the ethical issues involved in older age sex research.

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# Where have all the nurses gone?

## AUTHORS

### Linda Shields

PhD, FRCNA,  
Professor of Paediatric and Child Health Nursing,  
Curtin Health Innovation Research Institute, Curtin  
University of Technology, Perth, Australia; Honorary  
Professor, Medical School, The University of  
Queensland, Australia.  
L.Shields@hull.ac.uk

### Roger Watson

RN, PhD, FBiol, FRSA,  
Professor of Nursing, University of Sheffield, England,  
UK; Visiting Professor of Nursing, Hong Kong  
Polytechnic University, Hong Kong.

## KEY WORDS

UK, policy, NHS

## ABSTRACT

### Objective

The aim of this article is to highlight a crisis that has developed in UK nursing.

### Setting

The nursing workforce worldwide is diminishing and the UK nursing workforce is no exception.

### Subjects

Registered Nurses.

### Primary argument

While steps are being taken in the UK to alleviate the nursing shortage by funding more places in university nursing departments, this initiative is no longer viable due to the financial crisis in the NHS, which funds nursing education. The significant influx of international nurses to the UK is likely to be a short-term solution to a long-term problem as this incipient form of neo-colonialism is seen to deplete developing countries of their nurses, and international nursing bodies condemn it.

### Conclusions

The outcome of the crisis may well lead to the disappearance of nurses from the UK NHS workforce as they are replaced by the cheaper alternative of health care assistants and technicians. This can only be to the detriment of patients.



*It is the year 2012, somewhere in England. Jimmy, aged 4, has fallen off his bike and broken his arm. Liz, Jimmy's mother, has put a splint on his arm, arranged for Rob, her partner to come home from work early to mind the other children, and is taking Jimmy to the hospital. On arrival at the emergency department (ED), they are greeted by a clerk, who decides that Jimmy is a trauma patient and sends them to the trauma centre. There they are seen by an emergency department practitioner, who orders an X-ray, which is taken by a radiographer. Jimmy's arm needs pinning, on return to the ED, he is prepared for the operating theatre by the health care assistants who work there. Liz is told that she must stay and care for Jimmy after he comes back from theatre, and is told how to do the observations.*

*Jimmy and Liz are taken to the operating theatres by a porter, and are left in the care of a volunteer worker who stays with them until Jimmy is taken into the theatre. Liz wanted to accompany Jimmy until his anaesthetic took effect, but is told she cannot, as they do not have any staff to assist and support her. Jimmy waves to his mother as the porter rolls his trolley into the operating room, where the porter lifts him onto the operating table. Liz heads back to the ward to wait, worried that she has forgotten what she was told about how to do Jimmy's observations afterwards.*

*During surgery, the surgeon is helped by two operating department practitioners, one who is scrubbed and passes the instruments, one who scouts and assists with instrument and swab counts and the numerous other tasks required. An anaesthetic technician assists the anaesthetist with the gas administration, machines, drugs and intravenous lines. Once the operation is finished, Jimmy is wheeled to the recovery room, where another anaesthetic technician supervises several health care assistants, and who stand by Jimmy's trolley until he is fully awake. Jimmy is then taken to the ward by a porter.*

*Liz is waiting for him, and is told by the health care assistants who staff the ward that she must stay with Jimmy as the observations are easy to do and if there*

*are any problems they will call the registered nurse who is in charge of the four children's wards.*

*The next afternoon, after being seen by the doctor, Jimmy is discharged and goes home. During his whole hospital experience, he and Liz never saw even one nurse.*

By 2012, this scenario could be real. In the United Kingdom, nursing roles are being taken over by technicians, assistants with minimal education, and ancillary health staff such as porters. Similar action may be occurring in other countries however the situation is more acute in the UK because of the exigencies of funding and philosophies underpinning the National Health Service (NHS) (Shields and Watson 2006). The NHS is an idealistic scheme, introduced in 1946 when the end of World War II provided an opportunity to redress some of the inequities inherent in British life at the time, such as unequal access to high quality health care and education (Kynaston 2007). Under its socialist principles, all Britons (and many visitors to Britain) are entitled to all levels of free health care, from routine immunisation to liver transplantation. Taxation and national insurance payments (which are, in effect, an extra tax similar to the Medicare levy in Australia) provides the funds.

When the NHS was established however, no-one could have foreseen the exponential development of health care technologies, longer life expectancies, life saving drugs and techniques, increasingly high public expectations fed by communication technologies such as the internet, and the costs associated with all of these. But, as our vignette illustrates, the largest section of the workforce, that is nurses, may be endangered by current UK government policies toward health and the NHS. The aim of this paper is to provide Australian nurses and policy makers with information about nursing in the UK so that informed choices can be made in Australia about policy, practice and models of care. At present, governments and health policy makers are looking to the UK and the NHS for models which may appear efficient ways of using the health dollar (Department

of Human Services 2008). However caution is urged as the evidence presented here gives a different picture to that often perceived by visitors to the UK, who may not understand the nuances and long term effects of the programs under examination as appropriate for Australia.

### **The need for the highest standards of education**

The number of nurses graduating from UK universities with a degree at the point of registration remains at approximately 6% (Sastry 2005); the majority of nursing education is delivered at diploma level. Nurses need the highest standard of education possible, as the legal responsibility for nursing care lies solely with the registered nurse. It has been demonstrated in the United States of America (USA) that in a nursing workforce where the majority of nurses have at least a bachelor's degree, mortality rates are better than in health services where most have lower qualifications. In a controlled study of over 27,000 hospital admissions in Pennsylvania, the odds of 30-day mortality and failure to rescue were 19% lower in hospitals where 60% of the nurses had bachelor or higher degrees than in hospitals where only 20% of nurses had degrees (Aiken et al 2003). Educating nurses to the highest standard is better for the health of all and is cost effective. If the minimum requirements for nursing education and qualification are compared with the extremely rigorous and high standard required to be a commercial airline pilot (Pilot Career Centre 2007) there is a considerable difference. Consequences of low education standards for both professions are similar. If an airline pilot makes a mistake, people die, and similarly with nurses. Why then, are government, the general public and the nursing profession itself happy to accept low standards of education for nurses?

### **Why keep nursing education at such a low standard?**

There is a paradox in nursing education as it is presently constituted in the UK. At one level, nurses' roles are expanding and their levels of responsibility are increasing. However their education may not fully prepare them for these new roles and responsibilities. Nursing education in the UK is delivered at a very low

level, despite being located in universities. The low number of degree educated nurses (Sastry 2005) means that nursing output from UK universities is at a level of very basic education, nurses having undergone a competence or skills based curriculum. The competence and the skills are highly desirable, however the higher order skills engendered in degree level education - decision-making, critical thinking and research skills - are severely lacking. There is a media fuelled public perception that nurses do not need these skills and this is entirely wrong; in fact, they are needed more than ever in the rapidly changing world of modern health care, and especially with advanced and extended roles.

At the other end of the educational process, it is likely the general public would be shocked at the low educational level of achievement of some of the people who are entering nursing programs. Some students have very poor numeracy skills (Hall et al 2005, BBC News 2000), and others struggle with literacy; they would certainly not gain entry to regular university programs. Why should they be admitted to nursing programs? The way nursing students are funded by the NHS creates ethical dilemmas for the educators. As universities are paid by the number of students who finish, there is a danger that universities could be tempted to lower assessment standards to ensure as many students as possible graduate.

UK universities are pawns in the game of balancing supply and demand in the UK nursing workforce. At one point recently they were encouraged to admit increasingly large intakes to provide enough nurses for the NHS (Buchan 2005). This has led to annual intakes in the hundreds with multiple intakes, classes divided in two and lecturers having to deliver material up to four times in a year - it has become a treadmill for many staff who are suffering high levels of stress while still being expected to perform on the research and publication front like any other academic member of staff (Watson 2006). Once the nursing workforce crisis was perceived to be solved, the NHS started cutting back on its commissioning for student places and the universities were then left with too many staff whom they could not easily dismiss (Council

of Deans and Heads of UK University Faculties for Nursing and Health Professions 2007). In fact, it could be argued that UK universities are currently being punished for their success in helping the NHS solve its recruitment crisis.

### **The inequities of the student grant scheme: diploma or degree?**

Nursing students receive funding from the NHS in the form of a grant to cover their living costs and associated costs of education at university. If a student is undertaking the nursing diploma course at a UK university, they are paid much more than a student undertaking a degree, even though the degree program is a year longer (NHS 2007). The amount paid to students undertaking a degree is almost half that given to students studying the diploma program, even when additional allowances are added in; for example,

the 'additional weeks allowance' for students on a course that lasts longer than 30 weeks (table 1). If one examines the maximum amount which can be paid to a degree student, inclusive of all allowances (and extra payment for the 13 weeks to complete an academic year over the allowed 30 weeks), it comes to £8,766 for one year. However a diploma student, given the same conditions, will be given £11,278. The degree program grant is means tested; the diploma grant is not. When the students graduate, the graduates with degrees attain no better jobs and are paid no more than their diploma educated colleagues. This whole scenario is discriminatory, and is a disincentive to read for the degree, though as we have seen before, a degree educated nursing workforce is directly associated with a decrease in mortality in hospitals (Aiken et al 2003).

**Table 1: 2007-2008 NHS bursary rates for new students (in pounds) (NHS 2007)**

<b>PAYMENT</b>	<b>Diploma</b>	<b>Degree</b>	<b>/ year<sup>b</sup></b>	<b>Total<sup>d</sup></b>
Live in parents' home	6,372	2,231 <sup>a</sup>		
Lodge elsewhere	6,372	2,672 <sup>a</sup>		
Live in London	7,443	3,215 <sup>a</sup>		
<b>Additional weeks allowance<sup>c</sup></b>				
Live in parents' home		52	676	2,907
Lodge elsewhere		78	1,014	3,686
Live in London		100	1,300	4,515
Older students' allowance*	715			
<b>Dependent's allowances</b>				
Spouse, partner, 1 <sup>st</sup> child	2,218	2,510		
Each subsequent child	512	512		
Parents learning allowance	1,050	1,239		
Initial expenses	55			
Means tested	No	Yes		

\* for continuing students only in 2007-2008

<sup>a</sup> this allowance is for the first 30 weeks

<sup>b</sup> this is calculated at the weekly rate x 13 (study weeks remaining in year)

<sup>c</sup> this payment is for courses longer than 30 weeks per year

<sup>d</sup> = a + b

### **Training others to do nurses' jobs**

At present in the UK, nurses are actively engaged in an egregious undermining of their own roles (and by and large, they are doing it themselves) (Shield & Watson 2007). Historically, technicians of various sorts, such as Combat Medical Technicians (Army

Medical Services 2008), who are trained to do 'bits' of nursing roles, were often used by the military, where conditions, needs and requirements have always been different to those in the wider health care world. With the downturn in finances of the NHS, and the shortage of nurses, technician roles are being rapidly

developed in civilian services and it is nurses who are educating them (Shields and Watson 2007). The money used to educate and employ technicians would be better spent in higher standards of education for nurses, redesigning nurses' work roles and workforce management (Aiken et al 2001) and making nursing a more attractive career choice by improving rostering systems, creating flexible workloads, providing career development opportunities, and benefits such as free, twenty-four hour child care. Of course, pay is an issue, especially so in the UK, where recent pay increase offers did not meet increased inflation levels (BBC News 2007a), were considered insulting, and did little to encourage young people to choose nursing as a career, nor to prevent nurses leaving the profession (Council of Deans and Heads of UK University Faculties for Nursing and Health Professions 2007).

#### **The nursing shortage, ethical recruitment and job losses**

There is a shortage of nurses worldwide and almost every country struggles to find nurses to staff health systems. Developed countries have been recruiting nurses from developing countries, offering them Western lifestyles, career development opportunities and much more money than they could possibly earn in their own countries. The International Council of Nurses has strongly objected to such practices, as they deplete the nursing workforce in developing countries, where health and health care are usually poor and where all the nurses are needed (International Council of Nurses 2007). The UK has been one of the major recruiters of such nurses. Since 2001, 40,000 nurses have come from outside the UK, with mostly from the Philippines, South Africa and India (Bach 2004). However with the recent downturn in NHS fortunes, the nurses recruited to the UK are under threat as job losses occur. With 22,000 nurses losing their jobs across the UK in the eighteen months leading up to April 2007 (BBC 2007b), nurses brought from developing countries to fill gaps in NHS staffing must be carrying a huge emotional burden of insecurity.

With recent job cuts across the UK, new graduates

have not been able to find work. In some places, nurses are being invited to come to health facilities and work for nothing (Staff and Agencies 2007a) or as health care assistants 'so they won't lose their skills' (Staff and Agencies 2007b). No matter how desperate nurses are for employment, the unethical situation in which they would find themselves makes this a very dangerous situation for any registered nurse. How would a nurse react if, under the code of practice of the UK Nursing and Midwifery Council and all codes of ethics of the nursing profession itself, he or she finds him or herself in a situation where their clinical skills are required but because they are working for nothing they have no legal stance within the health service? For instance, a nurse in a babies' ward may see an IV going much too fast. Even though he or she knows that the baby is in danger of potentially fatal fluid overload, if the nurse is working as a volunteer, he or she will have no legal cover and will be working outside the law if he or she tries to adjust the IV. There are many such examples which could be described, but the whole situation is such an ethical, legal and moral minefield that it is incredible that the health services contemplated such actions in the first place.

#### **The role of health care assistants**

The past decade or so in the UK has seen an increase in the status and role of health care assistants (McKenna et al 2008); as nursing roles have expanded so have those of health care assistants. This rise of other health care worker roles has been concomitant with accommodation for the time nurses have to spend on what would once have been seen as duties beyond their nursing role. Examples of such roles include specialist and advanced practice and consultancy roles; all labelled to give nurses the feeling that their status is increasing when, in reality, these roles are often encroachments into the medical domain, designed to compensate for the tasks which the medical profession are divesting, as their own roles expand due to increasing technology and medical and surgical possibilities. Therefore the 'slack' in this system has been taken up by health care assistants as they take over the so called 'basic'

or 'routine' tasks that were once the preserve of the qualified nurse. Such 'basic' and 'routine' tasks are easily learned and performed by anyone, especially in the era of automated devices for monitoring vital signs. However what health care assistants are not educated to do is to understand and interpret vital signs; nor to observe and assess patients while they undertake the 'basic' procedures. Moreover, taking away these tasks from nurses obviates many natural opportunities for interaction and therapeutic communication. The rise of the health care assistant - at one time called the auxiliary nurse, assistant nurse or nursing assistant - has been paralleled by them seeking their own autonomy and recognition; they now have their own professional journal, and there is a danger that this body of the health care workforce will no longer be accountable to the nursing profession.

## CONCLUSION

Nursing in the UK is in trouble, and unless the problems are addressed soon, it stands in danger of disappearing, to be replaced by technicians of all kinds, health care assistants with minimal education and non-educated health care workers. All British citizens will be disadvantaged if this occurs. As the NHS struggles to meet budgets, to provide the highly technological health care demanded by a media-savvy public, and to give a high standard of costly health care, nurses will be replaced by those with a lower education at a lower cost. This has begun, and nursing in the UK, which used to lead the world, is in danger of slipping to an even lower standard of education and preparation for practice than many developing countries.

All nurses in the UK need to speak out; to use their professional organisations to fight for them; and to lobby politicians and policy makers to ensure nursing does not either slip any further, or disappear altogether (Shields and Watson 2007).

- UK nursing education should be funded to make it more attractive to undergraduates
- The value of nursing care in the UK needs to be investigated by research

- Entry standards to nursing programs need to be raised

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# A nurses' guide to the critical reading of research

## AUTHORS

### **Rebecca (Becky) Ingham-Broomfield**

RN (NSW), Cert.Ed, Dip.N (London), BSc, MSc, PhD student

Lecturer, University of New England, Armidale, NSW, Australia.

rbroomf3@une.edu.au

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## **KEY WORDS**

Research critiquing, research methodology, evidence based practice

## **ABSTRACT**

### **Objective**

A sound theoretical foundation to guide practice is enhanced by the ability of nurses to critique research. This article provides a structured route to questioning the methodology of nursing research.

### **Primary Argument**

Nurses may find critiquing a research paper a particularly daunting experience when faced with their first paper. Knowing what questions the nurse should be asking is perhaps difficult to determine when there may be unfamiliar research terms to grasp. Nurses may benefit from a structured approach which helps them understand the sequence of the text and the subsequent value of a research paper.

### **Conclusion**

A framework is provided within this article to assist in the analysis of a research paper in a systematic, logical order. The questions presented in the framework may lead the nurse to conclusions about the strengths and weaknesses of the research methods presented in a research article. The framework does not intend to separate quantitative or qualitative paradigms but to assist the nurse in making broad observations about the nature of the research.

## INTRODUCTION

Nurses worldwide need to continually look for *“solutions, choices and outcomes for patients that represent the best available knowledge internationally”* (Hamer and Collinson 1999 p.4) to constantly improve and validate nursing care. The Nurses and Midwives Board New South Wales (NMB NSW) Strategic Plan 2004 to 2007 includes an objective to promote education and research related to contemporary practice and educational programs leading to registration, enrolment and authorisation (NMB NSW 2006 clause 2). The United Kingdom Nursing and Midwifery Council (UK NMC 2002 clause 6.5) require a registered nurse or midwife to maintain their professional knowledge and competence by delivering care based on current evidence, best practice and, where applicable and available, validated research. Such an objective can be achieved if nurses and midwives develop an understanding of the research process and demonstrate an ability to retrieve and critically assess research findings.

Critical awareness is crucial to being a registered nurse or midwife. Hamer and Collinson (1999) suggest nurses should be more questioning, try to see more than one side of an argument; try to be objective rather than subjective; weigh the evidence; make judgements based on reason, evidence or logic; look at the meaning behind the facts; identify issues arising from the facts; and recognise when further evidence is needed. *“A nurse is responsible to ensure that the standard of the nurse’s practice conforms with professional standards with the object of enhancing the safety of the individual, any significant other person and colleagues”* (ANMC 2007 clause 2). This is echoed by the United Kingdom Nursing and Midwifery Council in their Code of Conduct which states: *“You are personally accountable for your practice. This means you are answerable for your actions and omissions, regardless of advice or directions from another professional”* (UK NMC 2002 clause 1.3). The importance of understanding, critically analysing and applying research becomes vital when so much rests on professional ability and accountability.

Given the amount and complexity of available information and the limitations of a nurses’ time, there is the need to use a process which provides a concise way to analyse the results of research findings (Hamer and Collinson 1999).

### Critiquing Research

The essence of the successful critiquing of a research paper lies in achieving a balanced appraisal. The reader needs to look for the merits and demerits of the methods used as well as the applicability to the health care setting. A balanced appraisal also requires a degree of logic and objectivity in identifying the systematic course of enquiry which underpins the research. The ultimate aim of any critique undertaken by nurses is to consider the applicability to practice.

### Research Methodology

A research report should contain a carefully and concisely worded problem statement identifying key variables (Polit and Hungler 1997). Research is often categorised as qualitative or quantitative, the former concentrating on words expressed by people in order to determine the reality of practice, whereas the latter tends to emphasise the use of numbers. Quantitative approaches to data collection and analysis have been developed within a traditional ‘scientific’ ethos (Burns and Grove 2001) whereas qualitative research means any kind of research that produces findings not arrived at by means of statistical procedures or other methods of quantification (Strauss and Corbin 1990). A quantitative approach may be chosen because the researcher wishes to collect information in a numerical form as the results will be based on rigour, objectivity and control (Burns and Grove 2001; Polit and Hungler 1997) whereas qualitative research allows the researcher to study things in their natural surroundings and attempt to interpret, or make sense of, phenomena (Denzin and Lincoln 2000).

Mixed method research is a combination of quantitative and qualitative approaches. Complex concepts of interest in nursing may require both approaches to sufficiently study the phenomena. Examples of different data collection methods might include questionnaires, the use of physiological

instruments to measure patient responses, as well as observation techniques to provide a more rounded picture of the concept under study (Burns and Grove 2001). The combined approaches are known as triangulation (Burns and Grove 2001; Polit and Hungler 1997).

### **Research Critique Framework**

#### **Title**

The title should not be long and complicated and should reflect as much as possible what the research is about (Parahoo and Reid 1988). The title does not validate or invalidate the research (Parahoo and Reid 1988).

#### **Author**

Ryan-Wenger (1992) notes the authors' brief biographies may be important sources of information about academic degrees, certification, position and place of employment, from which clinical and research expertise can sometimes be discerned. Occasionally the journal style means this information is not provided.

#### **Date**

Research papers can be significantly delayed before publication. It is important to determine whether the paper has been developed from a recent piece of work in order to assess its relevance to inform current practice (Polit and Hungler 1997).

#### **Journal**

The editorial panel may be of interest. Members of the editorial panel or board may represent a combination of academic research and practice and may have either national or international representation.

#### **Abstract/Summary**

An abstract or summary should clearly outline the problem, the hypothesis or research question/s, aims and objectives of the study (Polit and Hungler 1997). It should also cite the methods, which may include either a qualitative or quantitative approach, or a combination of both, to collect the data, the results, conclusions and recommendations for practice (Parahoo and Reid 1988). Abstract length is usually limited to between 100-200 words. Not all journals cite an abstract (Polit and Hungler 1997).

### **Identifying the problem**

The problem which initiated the research should be clearly described early in the report (Ryan-Wenger 1992). In order to evaluate the value of the research it is important for the hypothesis, aims and objectives to be clearly and unambiguously stated as too many questions may indicate that too much is being attempted (Parahoo and Reid 1988).

### **Literature Search**

The literature review is generally summarised in the introductory section or under a specific heading such as a review of the literature (Polit and Hungler 1997). Reference to original sources is important as information can be taken out of context and used inappropriately therefore an abundance of secondary sources should be viewed with caution as they may not provide sufficient detail or possibly distort some aspects of the original research (Polit and Hungler 1997; Burns and Grove 1993). The purpose of the literature review is to discuss what is known, identify gaps in knowledge, establish the significance of the study and situate the study within the current body of knowledge (Polit and Hungler 1997). This is supported by Burns and Grove (2001), who consider the primary purpose of reviewing the literature is to gain a broad background or understanding of the available information related to the problem.

The researcher should also critically appraise and use the literature to inform their thinking and methodology (Polit and Hungler 1997). Journals often place strict limits on word length and format of the literature review, so check that superficiality or an incomplete review is not the result of editorial demand (Cormack 1995).

The search should consider how the major variables were explored previously by critiquing the strengths and limitations of the methods used eg design, sample and instrument (Burns and Grove 2001). Previous methods should be appraised in order for the researcher to assess their suitability or modification for the current research (Ryan-Wenger 1992).

In a short article it is not reasonable to expect an exhaustive list of references however they should

be relevant and current (Polit and Hungler 1997). In some cases there may be very little literature available, in which case this should be stated.

## METHODOLOGY

### Designs

There are numerous research designs. More common examples include: experimental (the investigator controls the independent variable and randomly assigns subjects to different conditions); quasi-experimental (the investigator manipulates an independent variable but subjects cannot be randomised); or descriptive (the main objective is to accurately portray characteristics of persons, situations, or groups and the frequency with which certain phenomena occur) (Polit and Hungler 1997). The choice of design should allow the variable to be measured or manipulated in the study (Burns and Grove 1993). It is worth asking whether the means by which the data was collected was the most useful way to explore the subject.

Both Minichiello et al (2004) and Polit and Hungler (1997) state that before a study can progress, the researcher will usually clarify and define the variables under investigation and specify how the variable will be observed and measured in the actual research situation. This is known as an operational definition (Minichiello et al 2004; Polit and Hungler 1997).

### Instrument

It is important for the researcher to justify the use of the selected instrument. The rationale may clearly state the advantages and disadvantages of using one tool rather than another and the literature search should also have commented on the use of particular instruments in previous studies (Polit and Hungler 1997). The reliability and validity needs to be considered. Reliability refers to the degree of consistency or accuracy with which an instrument measures the attribute it has been designed to measure (Polit and Hungler 1997). Data retrieved may look authoritative but it could be incomplete or inaccurate or may not be sufficiently reliable to be of value in generalising to the larger population. Concurrently, validity refers to the degree or extent

to which the instrument measures the phenomena in the first place or “*reflects the abstract construct being examined*” (Burns and Grove 1993 p.342). Reliability and validity of the instrument is usually determined in the pre-test phase of the research known as a pilot study (Polit and Hungler 1997).

### Sample

It would be ideal to include every relevant subject in a study but this is usually impossible, for example because of the economics related to size, time and cost (Polit and Hungler 1997). The total membership of a defined set of subjects from which the study subjects are selected is termed the ‘target population’. From this group the final population entered in the study is determined (Polit and Hungler 1997). There are a range of methods available for determining that the sample studied accurately represents the population to which the researcher wishes to generalise. Since the cost of a study is partially dependent on the number of subjects sampled, it is important to determine the fewest number of subjects required to yield valid results.

The paper should reveal the mechanism for arriving at the given sample eg random, stratified random, cluster. From a sampling point of view, each individual in the population should have an equal opportunity to be selected for the sample. The method which achieves this is random sampling (Burns and Grove 1993). Stratified random sampling allows the random selection of subjects from two or more strata of the population independently (Polit and Hungler 1997; Burns and Grove 1993). Cluster sampling involves the selection of a large group or groups (eg a nursing school) with sub-sampling on a smaller scale (eg nursing students) (Polit and Hungler 1997).

Small samples of subjects are likely to appear in qualitative research where interview approaches, observational methods, or case studies aim to gain depth of enquiry from a smaller group of respondents.

The sample should possess characteristics compatible with that of the target population in order to be representative. Generalisations can be more



readily made when the results of the research can be applied to the larger group (Polit and Hungler 1997). In addition to providing information about how the sample was selected, the paper should provide comment on the generalisability of the sample to the target population.

### **Ethics**

The researcher is obliged to consider the implications of the proposed research for the participating subjects, their families and society (Burns and Grove 2001). Most nursing research usually requires the permission of an appropriate ethics committee (Hamer and Collinson 1999). This may for example be attached to a health authority or to a university. The committee may include clinicians, researchers, educators and lay people who devote a great deal of time and effort to protecting the rights of subjects under scrutiny by overseeing research proposals.

Ethical guidelines outline a set of standards for conducting research. Within their practice nurses have a moral and legal obligation to protect the privacy of an individual (ANMC 2007) and this holds true within nursing research. Equally important is the premise to protect individuals from the risk of significant harm (ANMC 2002).

The National Health and Medical Research Council has issued a national statement, the *National Statement on Ethical Conduct in Research Involving Humans*, which is intended for use by any researcher conducting research with human participants, any member of an ethical review body reviewing that research, those involved in clinical governance and potential research participants (NHMRC 2007).

### **Pilot Study**

A pilot study is a small-scale version or trial run of the research. The function of a pilot study is to obtain information for improving the project or assessing its feasibility. Costly mistakes can be avoided by a pilot study (Polit and Hungler 1997).

### **Main Study**

Collecting the data normally proceeds according to a previously well organised plan. The collection of data, no matter what instruments are employed, is

typically the most-time consuming phase of the study but will vary from project to project. Interviews and transcription may take years.

The paper should explain why the researcher has chosen a particular method of data collection. Questionnaires tend to be less costly and require less time and energy to administer than interviews. They also offer the possibility of complete anonymity and avoid any interviewer bias. The strengths of interviews are that the response rate will probably be high with a face to face format, members of society who cannot complete questionnaires (eg people who are blind or elderly) can be included, the interviewer or respondent can clarify questions and additional information can be gathered through observation (Polit and Hungler 1997).

Nursing studies most frequently involve the use of interviews or questionnaires, socio-psychological scales, direct observation or a biophysical measure because these methods lend themselves to studying nursing phenomena (Polit and Hungler 1997).

Other methods of data collection may be used such as focus groups where the group discuss questions on a given topic (Polit and Hungler 1997). Using focus groups as a form of data collection has many advantages. Group interaction can clarify or quantify ideas or assist analysis on notions not previously considered (Minichiello et al 2004). They can also be used to triangulate data or explore issues raised earlier using other methods (Minichiello et al 2004). However like all other forms of data collection the group interaction of the focus group can be affected by the personal characteristics of the participants such as class, gender and race. The researcher can also have less control over the conduct of the interview which could affect the quality of the data collected (Minichiello et al 2004).

### **Results**

Numerical data tends to be presented in two forms, firstly as raw figures and percentages within the text and secondly, more visually, as line graphs, tables or histograms (Burns and Grove 2001). Although quantitative analysis can only be carried out with

numbers, the numbers themselves have no intrinsic worth so they need to be given meaning by those who are using them (Parahoo 1997). Levels of measurement exist to sort the numbers. The nurse needs to ask how clearly the researcher has explained their findings.

Measures of central tendency, also known as the average identify how near the usual response a particular variable lies (Burns and Grove 2001). These averages are expressed as mean, median and mode. The mean is arrived at by summing all scores and dividing by the number of subjects. The median represents the exact middle score or value in a distribution of scores. The mode is the value that occurs most frequently in a distribution of scores (Burns and Grove 2001; Polit and Hungler 1997).

Figures may be observed expressed as  $p > 0.05$  or  $p < 0.05$  which gives a level of significance known as probability. This means that techniques were used to ensure that each subject in the population had an equal chance of being selected (Minichiello et al 2004). If a probability result is statistically significant ( $p = < 0.05$ ) the result had a less than 5% possibility of being caused by chance and therefore becomes significant and important (Polit and Hungler 1997).

Qualitative data may be reported in a more discursive way and may include such features as actual quotes from interviews and discussions with focus groups (Burns and Grove 2001). The inclusion of quotes will be limited by the word count allowed by the particular journal publishing the research.

### **DISCUSSION/RECOMMENDATIONS**

This section centres on the judgement of the reader in evaluating the worth of the article. It may be that some or all of the recommendations could be implemented in practice readily or may be cautiously taken up and piloted over a period of time. Alternatively the results may not be considered unless modifications are made due to the unique features of a particular clinical setting or other serious limitations of the study. An important point to remember is that the research does

not necessarily prove a point and may only suggest a relationship or highlight an issue needing further investigation (Parahoo and Reid, 1988).

### **CONCLUSIONS**

All major findings related to the original aims of the study are discussed in relation to whether the data supports or negates the hypothesis or research question/s (Parahoo and Reid 1988). In the discussion the reader should be able to evaluate the research design and the overall merit of the study, its strengths and weaknesses. Any significant weakness in either method or findings will seriously devalue the research itself. Competent researchers will highlight these concerns themselves, perhaps under a section titled limitations of the study.

### **REFERENCE LIST**

Research papers conclude with a list including books, reports, other journal articles which have been used to support the concepts outlined. For those interested in pursuing additional reading on the topic, the reference list of a current study provides an excellent starting place (Polit and Hungler 1997).

### **The Framework**

The framework is a visual tool to stimulate questions to assist in the assessment of the value of a research paper. The framework is intended to allow the reader to question each section of any paper, allowing better interpretation of the contents.

The framework provides trigger questions; the reader should explore them within the paper and provide a rationale for the researcher's inclusion or omission.

### **CONCLUSION**

The methodological approach used in this paper provides a framework to analyse research papers logically and systematically. Nurses need to use sound theoretical foundations to guide practice. While this paper is deliberately simplified it still allows for the major components of the research process to be identified and considered.

Process	Considerations when critiquing a research article
1. Title	Is the title clear and accurate ie does it describe the research?
2. Author	What are the author's qualifications and current position?
3. Date	When was the research undertaken? When was it published? Is it a recent piece of work? Is it relevant to present practice? NB. This is not always easy to establish with online articles.
4. Journal	Does the journal deal in nursing research? Are the members of the editorial board from a wide range of academia and practice? Who is the target audience? Broad or specific?
5. Abstract/Summary	Does the abstract clearly outline the problem, the hypothesis/research question, aims and objectives, methodology, results, conclusions and recommendations? Are you clear about what is being investigated?
6. Identifying the problem	Is the problem and/or purpose of the study clearly identified? Is there a rationale for the study?
7. Formulation of research questions (qualitative design) or hypotheses (experimental design)	Are the aims and objectives clearly stated? How many research questions/hypotheses? Is too much being attempted? Does the hypothesis follow logically from the original problem? Do the aims and/or question/s follow logically from the original problem?
8. Literature search	Is there an unbiased discussion of related research? Does the researcher demonstrate insight into the subject under study? Is there an appropriate timescale for the literature cited? Does the search identify whether a theoretical framework has been used? Is the search a collection of quotes or does it critically appraise previous studies?
9. Methodology	
Design	Is the study described adequately? Can you identify what type of study is used, eg descriptive, experimental, quasi-experimental?
Tools	Are the reasons for the choice of instrument given eg questionnaire, observation, interview, patient records, diaries? Is the advantage/limitation of the tool used discussed?
Sample	Is the sample representative of the population under study? Have the characteristics of the sample been considered eg size, culture, gender? How appropriate is the method of sample selection?
Ethics	Has informed consent been given? Is confidentiality and anonymity assured? Was the right not to participate explained? Was dignity upheld? Were the subjects free from harm? Was ethics committee approval sought?
Reliability and validity	Has the study considered the issue of reliability and validity? Is the research methodology biased?
10. Pilot study	Has a pilot study been completed? What modifications were made and why?
11. Main study	
Results	Are the raw figures and percentages or dialogue provided in the text? Are they visually presented eg graphs, bar charts, scatter-grams, extracts of dialogue? Is the rationale provided for the inclusion or omission of statistical testing? Is the probability of the result by chance included?
Discussion/ Recommendations	Is the discussion of the results understandable? Are the recommendations self-evident after reading the rest of the paper? Are the recommendations able to be implemented? Has the researcher acknowledged their limitations? Are their suggestions for further research?
Conclusions	Do the conclusions relate logically to the results? Are there any distortions attempted to 'fit' preconceived ideas? Are the aims, questions or hypothesis posed earlier addressed? What omissions have been made and has the researcher referred to these?

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