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

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Editorial

Lee Thomas

AJAN Editor, and
Assistant Federal Secretary
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It is hard to believe that Christmas is almost upon us again. The year has flown by so quickly and with that has come many changes for nursing, midwifery and health generally, across Australia.

The advent of nurse practitioners and eligible midwives access to the Medicare and Pharmaceutical benefits schemes from November 2010 is but one of the changes that many have been lobbying to achieve for a number of years. While there are still some of the finer points of this access to be decided it certainly will be a day worth celebrating once the new scheme is introduced.

The new national regulation and accreditation scheme will also become effective from 1 July 2010 and again while there is still plenty of negotiation to go on in respect of making operational the new scheme we are all hopeful that one national licence for nurses and midwives and common accreditation outcomes exercised nationally will lead to better outcomes for registrants and consumers.

In this edition of the Australian Journal of Advanced Nursing (AJAN) there are a number of thought provoking papers covering a wide range of topics from social isolation in the elderly (Greaves and Rogers-Clark) to the benefits of night duty placements for nursing students (McKenna and French).

I hope you enjoy reading this latest issue of the AJAN and from all us here who pull the AJAN together every few months we wish you a merry Christmas and happy new year.

The experience of socially isolated older people in accessing and navigating the health care system

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KEY WORDS

social isolation, older, aged, access health / medical services, aged care

ABSTRACT

Objective
This article reports findings from a study exploring the challenges experienced by socially isolated and unwell older people as they attempted to access the health care system. Understanding the specific issues confronting these individuals would inform the development of more appropriate models of community-based aged care.

Design
A longitudinal qualitative, interpretive study using a case study approach with indepth interviewing.

Setting
This study was conducted in metropolitan Brisbane, with frail older people who were accessed via their GP service.

Participants
Six participants who met pre-determined selection criteria were recruited to this longitudinal study, and interviewed twice over a six month period.

Findings
Fear emerged as a common experience embracing aspects of daily life such as depletion of social networks, being dependent on others, loss of mobility and diminishing ability to drive. Inadequate or unreliable public transport resulted in extended waiting times to attend medical appointments.

Conclusions
Despite efforts to address the specific issues of frail older people living independently, this study highlights the suffering experienced by those who are socially isolated and lack the knowledge, skills, physical wellbeing and support to locate and access relevant health services.

INTRODUCTION

Social isolation is, sadly, a significant component of the lives of many older people (age cohort 75 years and over) living independently in Australia. Although descriptions vary, social isolation is generally understood to occur when a person has minimal levels of social participation and perceived inadequate social experiences (Fratiglioni et al 2000; Copeland 2002; Findlay and Cartwright 2002; Victor et al 2000; Greaves and Farbus 2006). There is evidence that social isolation is linked to negative health outcomes and decreased quality of life (Findlay and Cartwright 2002; Victor et al 2000). This can become a spiral for older people who lose what limited capacity they do have for meaningful social interaction in the face of the challenges associated with their illness.

Accessing the health system can be challenging for many older people, but potentially even more so for the socially isolated and unwell older person who has to do so alone without the support and sharing of knowledge which is part of being in a good social network. In response to increasing awareness of this issue, the *Cross Government Project to Reduce Social Isolation of Older People* was instituted in 2004 to reduce social isolation of older people in the Brisbane North area. This multidisciplinary initiative was developed by the Ministerial Advisory Council for Older Persons (MACOP) 2002 and incorporated the Seniors Interest Unit (SIU) of the Department of Communities. The aims of this initiative were to identify key issues leading to or influencing the development of social isolation in older people. Following this *Community Links,* a Brisbane North Division of GP's initiative was undertaken in 2006 to inform GP's and practice nurses of community services to people with findings published in 2007.

The current study, with data collected in 2006/7, is a longitudinal study using grounded theory to explore the experiences of socially isolated, frail older people in accessing and navigating the health care system, via a series of three in depth interviews. The study aims to ascertain needs, modes of access and process of navigation of socially isolated older people within the health care system. This paper reports findings from the first set of interviews with participants,

METHOD

Design of study

This study adopted a qualitative, interpretive approach, which has allowed the researcher to listen closely and report narratives of the socially isolated older person.

Using a general inductive approach allows for both flexibility and rigour, and to achieve both the study has followed the guidelines of Thomas (2006), Morse (1997) and Thorne (2000). Thomas (2006) stated the main principle of the general inductive approach is to allow research findings to materialize from the recurrent, dominant or significant themes inherent in raw data, without the restraints imposed by structured methodologies.

Explicit themes (those that provide direct answers to specific research questions) and implicit themes (themes that fit into the overall context of the dialogue and connects with other aspects of the text) were identified and manually colour coded throughout transcriptions of the interviews. Categories and sub-categories were generated using numbered line by line coding. In addition, similar meaning words and phrases were grouped together and re-coded to reduce the number of sub-categories and categories that were placed into major themes.

Approval to conduct this study was granted by the Human Research Ethics Committee (University of Southern Queensland).

Participants

Through a collaborative initiative, the General Practitioners (GP's) at a medical centre located in the Northern suburbs of Brisbane were approached to compile a list of potential participants based on pre-determined selection criteria developed by the researchers. These included: age 75 years and over, married or single, limited meaningful social contact per week (defined as active social networks comprising two or less individuals), and able to give informed written consent. From this list, six individuals agreed to participate in the study.

Data Collection

This article is based on information analysed from the first round of interviews. These audio taped interviews were conducted in the participant's home or at the Medical Centre according to participant preference. Interviews were between one and two hours in length.

Interview transcripts were checked for accuracy by carefully checking each line against the audiotape. Attempts to verify the interviews via member-checking were relatively unsuccessful, with only one participant agreeing to read and comment on their transcript. Instead, trustworthiness of findings was determined by intra interview respondent validation.

Data Analysis

Initial interviews were transcribed and subsequently coded by numbering each line of dialogue. Rigorous reading and re-reading of each transcript revealed stories that were categorised into broad themes via thematic analysis.

STUDY FINDINGS

A spiral of deterioration

The thematic analysis of data from the in-depth interviews revealed fear as a central feature of the experience of socially isolated older people as they confronted their deteriorating health. This fear was experienced by all participants, and was the culmination of a spiral which appeared to be initiated by deteriorating health, and escalated by difficulties experienced in accessing appropriate health care. Figure 1 demonstrates this spiral, and indicates how the suffering associated with deteriorating health (such as increasing dependence and loss of autonomy, mobility and increased social isolation) was exacerbated by increasing difficulties in attempting to access health care. These difficulties were practical (problems with transport and having to wait for care) as well as emotional (a sense of becoming invisible and feeling powerless).

Figure 1: A Spiral of Deterioration: Socially Isolated, Old and Getting Sicker

Deteriorating health

The cycle commences with deteriorating health. This influenced participants' perception of ageing and appeared to be interwoven with their sense of fear. Several accepted this as a normal sequence of events, such as Ken: *'I've never sort of worried about my breathing, you know, I don't know what this is, but I suppose it's common with old age'*. Others verbalised their anger and frustration with the negative impact of advancing age and illness progression. *'I'm old and weak and I don't like it. I hate being old and wrinkled' (Bette);* and. *'I can't make a bed and I can't sweep the floor. I vacuum with one hand and then I take painkillers' (Win).* Monica tells a similar story, *'Because of my breathlessness I can't walk any great distances…I'm slower these days and it's difficult getting groceries into the house'.*

Decreasing social networks and a reluctance to ask for assistance from close friends, family or neighbours resulted in self imposed isolation as participants did not want to be seen as a nuisance or burden to others. Shirley verbalised, *'We don't intrude…while you love to talk, you don't really ask them for physical help [neighbours].* Win spoke of her neighbour, *'Mary would do everything for me if I'd let her, but I won't let her'.* Ken talked about his experiences in the caravan park. *'…for two to three weeks you mightn't talk to anyone…I don't like talking to a lot of people because sometimes, you go back and think, "what have I said that I shouldn't have said?.. I just didn't ask [for help], I don't know why, I guess I didn't want to bother them like, you know'.*

Dependence / Sense of Loss

Loss of independence and subsequent dependence on others was closely linked to concerns of perceived decrease in autonomy, decreased ability to care for self (and spouse), a general inability to cope with life changes and increasing health problems. Win's fears were falling and pain: '*I fell over one day and you know they walked around me. I was here at the hospital and nobody helped me…I mean you're invisible. I'm terrified of the pain that I'm going to have when I get up…the morphine doesn't work'.* Bette comments, *'my balance is very bad…there is a lot of fear attached to it but you are always frightened you're going to fall… I'm very anxious when I go outside… I can lose my balance very easily. I'm very frightened of falling…'* While fear of falling was common, these extracts also highlight the loss of autonomy in being able to recover from falls and the sense of loss felt when one feels no longer valued and thus invisible.

Reduced social contact in the neighbourhood meant fear of being alone for some. This is increased by the desire to be independent and a reluctance to ask for help from neighbours and family. *I haven't got anyone and these days you don't know your neighbours in the streets'.* Fay states '*…there was absolutely no rest, I was totally exhausted. I am really so worn out that I cannot cope any longer…you're obviously there and you just keep going'.*

Limited mobility and decreased ability to carry out activities of daily living were of major concern to several participants. Participation in activities once enjoyed was also affected by decreased mobility as Bette's story confirms, *'I love watching plays and old movies. I couldn't go out now; I wouldn't be able to sit through anything now. I used to go out a lot but not any more and I never go out at night'.*

Transport

Participants used their own transport almost exclusively to access all their health care needs with one participant riding a pushbike from the northern suburbs into the city for treatment at a major hospital. In some cases, public transport was unreliable or non-existent in some streets. Personal transport was essential to Monica, *'If I didn't have my car I would find it very, very difficult. I couldn't come to see doctor here at the clinic. I would use public transport if it were regular…the buses don't stop at all the stops now – they've changed the transport system.'* Participants in this situation were physically unable to walk to the nearest bus stop and were therefore precluded from this service. Jack (on behalf of Shirley) comments, '*If I wasn't available and we didn't have the old vehicle I don't know how we'd survive'.* Three participants had restricted driving times and distances. Others preferred not to drive in heavy traffic or late in the day. This limited their availability to accept appointment times offered outside their preferred times. Several participants were initially unaware of City Council Cab Services as a possible alternative to buses, but even when this was known still preferred to utilise their own transport. Taxis were not a viable ongoing option due to the expense of this mode of travel.

Waiting

Waiting times for hospital specialist appointment times were protracted in all cases. Three participants accessed specialist services through the public health system. Waiting times varied from eight weeks to two years for specialist appointments. Experiences of re-categorisation were common and there is evidence that it was not unusual for these people to receive no notification of altered appointment schedules. Participants' also recounted feelings of being on a 'merry-go-round' where inter hospital referrals to different departments and specialists left them bewildered and frustrated.

Win's greatest fear is ongoing pain in her shoulder as she waits for an operation. She has been on the waiting list for two years. *''I changed doctors and I've been waiting now for two years, I'm still waiting! I haven't had anything – I haven't had a call, I haven't had a letter, I've had nothing and I mean it's just not good enough. ...There's a waiting list – you get to the top and they bring you to the bottom again and so it goes, ring-a-rosy. You get nowhere, absolutely nowhere.'*

Long waiting times for GP's and specialist review discouraged several participants from actively seeking medical assistance preferring to manage on their own in most instances. This was exacerbated by the "merry-go-round" of different specialists, all which served to increase waiting times and resolution of health concerns. *'We have private health cover but we still have to wait a long time sometimes for things to get done. You don't want to wait around when you are feeling unwell' (Bette, 87 years).*

Becoming Invisible

Five participants revealed they felt 'invisible' when attempting to access heath care. Win reiterates, *'Once you're past 65 you're invisible. Don't rock the boat, keep out of the way, don't ask for anything, just be invisible, that's all they want. Once you're needy you're supposed to be invisible. Don't bother me you're of no consequence'.* Others related stories of their GP's not listening to them at consultations. Fay's story concurs, '*I suggested to the doctor that he check him [husband] out for memory problems and so forth and after about 12 months he sent us over to a doctor who diagnosed Alzheimer's'.* All participants felt that society in general focused on the health needs of the younger generation. Bette's summation is mirrored in other participant accounts. *'I haven't got much faith in doctors. I feel we're past our use by date – no one really cares. We've had our time here, only the young matter today. Yes, lots of money is spent on the young' (Bette).*

Powerlessness

An inability to challenge perceived experts was evident as interviews progressed. Several participants expressed their dissatisfaction and frustration with their attempts to access and co-ordinate care with their GP's and specialists. *'I asked doctor if he could get me an appointment with the specialist and he just kind of stared at me. Nobody did anything about it and he didn't write to the hospital to ask them for an appointment like I asked him to – I pleaded with him. I didn't ask him, I pleaded with him!' (Win).*

'I have on occasion spoken to a doctor about taxi vouchers, but the response has always been negative. I don't know why. I think they think the application for it is a bit hard for them to handle' (Jack on behalf of Shirley). Ken relates, *'I seen the same bloke [doctor] and he seemed to be a bit different. I think I must have blotted his copy book or something you know, like when I first seen him...I just walked away, what else could I do'?*

Participant stories reflected the significant difficulties encountered by those who were unable or unwilling to demand a better service and as a consequence became bewildered and disillusioned. Win constantly described this as "hitting a brick wall." *'I was supposed to be done [operation] within four to six weeks and I'm still waiting...you walk up into a brick wall and you just...there's just not anything* *you can do. You talk, you ask, you plead, you get nowhere'.* Shirley's case is particularly distressing. She *describes* her experiences during radium treatment for maxillary cancer. *'…sometimes it was quite openly mal-administered…but I was the one who was the sufferer of that, never to be able to be mended and I was burned seriously. I put my hand up but nobody came…I ended up with skin and hair like molten toffee…because I was by myself, I should have insisted on taking this [gown] off and walked out but I was locked under and there were all these people around me….* Shirley felt impotent to stop the radium treatment, *'I felt like nothing …a non-entity that's the word'.*

DISCUSSION

The descriptive narratives of the participants highlight how fear pervades many aspects of their lives. Though not directly stated by some, this phenomenon underpins how they react to and interact with health care interventions.

The findings of this study are disconcerting and highlight the vulnerability of frail older people living in socially isolating circumstances. Sensitive and ethical strategies are required to encourage this cohort to accept health care initiatives whilst maintaining their autonomy, self esteem and value as members of society. It is of concern that these findings follow the implementation of a local project, *Community Links,* which was designed to enhance GP and Practice Nurse awareness of available community services for older people. While the current study is not an evaluation of that project, it is sad to note that for this cohort of older people at least, the *Community Links* project appears to have made little difference to their journeys.

Findings of this study support previous research. Research undertaken by Baltes (1996), Oldman and Quilgars (1999), Peel, Westmoreland and Steinberg (2002) and Godfrey and Randall (2003) identified loss of independence as a major concern for older people irrespective of cultural diversity and personal circumstance.

In this study, fear was a key aspect of the study participant's emotional response to their diminishing health. This finding resonates with results from a number of other studies. For example, Minichiello, Browne and Kendig (2000) examined the experiences and perceptions of ageism by older Australians and reported that fears of vulnerability and loss of relevance were central to their experiences. Quine and Morrell (2007) discovered issues of fears for self incorporating loss of independence and possible nursing home admission to be of greatest significance. Fear of falls was the focus of research by Lord, Menz, Sherrington and Close (2007) while loss of independence relating to personal transport was a key feature of research by Peel, Westmoreland and Steinberg (2002).

In the current study, it is anticipated that a further two rounds of interviews will ascertain the levels of knowledge of health care services and generate possible strategies in navigating the health care system which, if implemented, may go some way at least to address the problems described in this paper. The findings of the study to date indicate that an underlying principle for intervention is that of a partnership approach, where the focus is on ensuring that socially isolated older people are reassured they will be able to maintain their dignity and autonomy whilst accessing health services.

This is especially relevant for aged care, community and practice nurses who work regularly with older people. Despite the challenges of a time-pressured work environment, taking the time to build respectful and trusting partnerships with older people is an investment which is likely to enhance the likelihood that older people will feel comfortable in seeking the health care they need and deserve.

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Nurse Practitioner provision of patient education related to medicine

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KEY WORDS

Nurse Practitioner (NP), nurse prescribing, patient education, Consumer Medicines Information

ABSTRACT

Objective

To describe the perceptions of Australian NPs and NP candidates (student NP and NPs in transitional roles but not yet authorised) in regards to their confidence and practice in providing medicine information to patients / clients.

Design

An electronic survey related to prescribing practices.

Setting

The survey was open to all Australian NPs (n=250 at time of survey) and NP candidates.

Subjects

The survey was completed by 68 NPs and 64 NP candidates (student NP and NPs in transitional roles but not yet authorised) across Australia.

Main outcome measures

Survey findings.

Results

Sixty seven percent of NPs and 54% of NP candidates identified feeling very confident in providing their clients with education about medicines. Of the NP respondents 78% identified they generally do inform patients of the active ingredient of medications and 60% of NP respondents indicated they provide or discuss CMI leaflets with their patients.

Conclusion

The results suggested that NPs and NP candidates are providing some of their clients with medicine information and using CMI leaflets in some prescribing consultations. Although confidence in the area of provision of education to patients related to medicines is high this may be incongruent with actual concordance supporting nursing behavior. Person centered patient education is central to the principles of building concordance. The incongruities between confidence in the provision of medication education to patients and self reported concordance building NP prescribing behavior needs to be a focus of critical reflection on NP prescribing practice.

INTRODUCTION

In Australia, the Nurse Practitioner (NP) is defined as, 'a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role' (Australian Nursing and Midwifery Council 2006). The NP role was first introduced in the state of New South Wales (NSW) in 1998 (Cashin 2007). To date, legislation protecting the title 'Nurse Practitioner' has been passed in all Australian states and territories. The NP has three legislated extended roles under which they are able to initiate diagnostic investigations, prescribe medications and make direct referrals to specialist medical practitioners (Australian Nursing and Midwifery Council 2006). Nurse Practitioners have gained prescriptive authority in all states and territories except the Northern Territory where this legislation is under review.

From an international perspective, in the US the NP role was introduced in the 1960s and has established title protection in all 50 states (Phillips 2007). Nurse Practitioners in the US are one of the three defined Advanced Practice Nursing roles (APN). Nurse Practitioners can not only diagnose and treat, but also have the authority to prescribe in all states (Phillips 2007; Kaplen et al 2006). However, in only 27 states can NPs prescribe independently while the other 23 states NP prescriptive authority is linked to a collaborative agreement with a physician (Plonczynski et al 2003). In the UK the NP role is unregulated by the Nursing and Midwifery Council with no title protection, agreed role functions or established educational standards. However, since 2006 registered UK Independent Nurse Prescribers have unlimited access to the entire British National Formulary with the exception of controlled and unlicensed medicines (Courtenay 2007).

Evidence from Australia, US and the UK has shown that nurse prescribing can increase efficacy, maximize resources, improve patient access to medicines and enable nurses to provide more timely and comprehensive care packages (Courtney 2007; Phillips 2007; Towers 2005; Bailey 2004; Jones 2004; College of Nursing 2003). Nurse prescribing also has benefits for improving retention of this valuable workforce through increasing prescriber autonomy and job satisfaction (Wand and Fisher 2006).

The philosophical essence of nursing includes holistic, patient centred, care in which providing education is paramount and partnership in decision making is valued (Wilson and Bunnell 2007; Wand and Fisher 2006). NP prescriptive authority has enhanced the opportunities for NPs to provide holistic care in which patient medicine education and concordance is promoted (Bradley and Nolan 2007; Courtenay 2007; Nolan et al 2004).

Concordance is a term used to describe a partnership between patient and prescriber in which views and beliefs are exchanged and an equal understanding about medicine taking is developed (Stevenson and Scambler 2005). The principles of concordance include promoting equality of knowledge on a medicine through information giving, utilizing the expertise of both patient (lived experience) and prescriber (professional experience), valuing the patient perspective, and ultimately shared decision making (Latter et al 2007a; Hobden 2006). These principals are in keeping with the National Strategy for Quality Use of Medicines (QUM) which sits within the framework of the National Medicines Policy in Australia. The QUM recommends selecting medication management options wisely, taking numerous factors into account so the most suitable medicine is chosen, and using medicines safely and effectively to get the best possible results (Commonwealth of Australia 2002).

Are nurse prescribers providing medicine education?

Few studies have explored in detail how NPs or nurse prescribers provide patients with information and education on medicines. Research into the practices of concordance has largely focused on the prescribing practices of doctors (see for example Skelton et al 2002; Gwyn and Elwyn 1999; Liaw et al 1996).

Stevenson et al (2004) carried out a systematic review with the aim of determining the extent to which health practitioners were practicing in a manner that promotes concordance. The review focused on research that explored two-way communication about medicines between consumers of various health services and a range of health practitioners. From a review of 134 articles included in the study, the authors reported a number of studies suggesting patients would like to share their health beliefs, experiences and preferences with their health practitioner but are often not given the opportunity to do so, or are reluctant to do so due to lack of confidence. In addition health practitioners failed to seek information central to concordance such as patient preferences and ability to adhere to the recommended health regime. In relation to prescribed medications, the benefits of a medicine were discussed more often than potential side effects and precautions. This imbalance of information provided by prescribers resulted in patients being more likely to take a passive role.

Latter et al (2007a) completed a study of 400 independent nurse prescribers in the UK investigating principles of concordance within their prescribing interactions. Ninety-nine percent of respondents agreed or strongly agreed they applied the principles of concordance. The study reported in 89% of consultations, participants gave clear instructions to patients on how to take their medicines, and 73% of consultations nurses checked patients' understanding and commitment to their treatment. However, only 48% of participants discussed medication side effects and only 39% explained the risks and benefits of treatment. While 93% of patients in the study identified feeling they had been given enough information, and 82% believed the information given was easy to understand and follow, only 60% of patients stated they received information on the side effects of medicines. The authors concluded that while UK nurse prescribers appear to have awareness of the principals of concordance, practice tends to continue to focus on the provision of information related to medication promotion while information that may lead to patients making an informed decision not to take a medicine is often withheld.

Little is known of NP prescribing practices in Australia, or to what extent NPs are providing comprehensive medicine information to clients. A potentially valuable tool for Australian NPs is the Consumer Medicine Information (CMI) leaflet. Pharmaceutical companies produce CMI leaflets in accordance with government guidelines to inform consumers about prescription and pharmacist-only medicines. Information provided in a CMI leaflet includes the ingredients of the medicine, possible side effects, and advice on taking the medicine. Consumer Medicine Information leaflets encourages information exchange between prescriber and patient, where the prescriber can provide information and inform a patient about a medicine, and the patient can discuss his or her medication beliefs and preferences in relation to the recommended regime (Department of Health and Ageing 2000).

The aim of this descriptive study was to report the perceptions of Australian NPs and NP candidates (student NP and NPs in transitional roles but not yet authorised) in regard to their confidence and practice in providing medicine information to patients/ clients.

METHOD

Study design

In 2007, a total of almost 100 NPs, NP candidates, educators in NP courses and managers of NP services participated in four focus groups designed to discern the shape of NP prescribing behaviours, enablers and inhibitors. Thematic analysis of the focus group data, plus a comprehensive review of published and unpublished literature, was used to inform the content of a national on-line survey.

The electronic survey was available for a two-week period via the National Prescribing Service and Australian Nurse Practitioner Association (ANPA) websites. Invitations to complete the survey were sent to all Australian NP course coordinators to distribute to their students, all ANPA members and all participants in the original focus groups. In addition the survey was advertised in specialty newsletters and at relevant professional conferences.

Study participants

A total of 68 NPs and 64 NP candidates participated in the survey. At the time of data collection there were 250 authorised or endorsed NPs in Australia. This gives a response rate of 27% of NPs.

Data analysis

Participant characteristics and outcome data are reported as raw data. Differences between groups were analysed using chi-square test (X^2) for categorical data. Data were analysed using the program SPSS version 14.0 for Windows.

ETHICAL CONSIDERATIONS

Ethical approval was received from appropriate Human Research Ethics Committees.

RESULTS

The majority of NPs (70%) had practiced in their specialty for more than 21 years. Ninety-two percent of participants were practicing in the public sector with over two-thirds (70%) practicing in metro areas. Although there was participant representation from every state and territory, the majority of NPs were located in New South Wales (56%). Respondents identified over 30 specialty areas of practice with the largest group being emergency (23%). Sample characteristics are shown in table 1.

Table 1: Characteristics of study participants by group

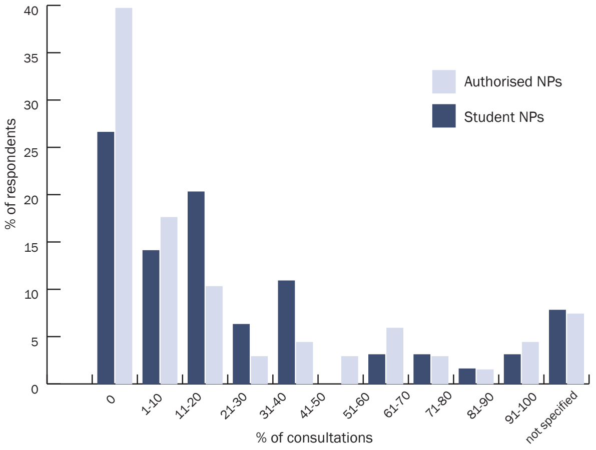
Characteristic	NP N=68	Student/transition NP N=64
Female gender	53	53
Age (mean years)	47.1	43.4
Years practicing as an RN		
<5 years	0	1
>25 years	34	21
11 - 15 years	7	10
16 - 20 years	10	9
21 - 25 years	14	13
5 - 10 years	3	10
Practicing in metro or rural area		
Metro	52	40
Rural	12	20
Remote	4	4
Public sector	64	57
Private sector	4	7
Jurisdiction of NP authorisation		
New South Wales	36	
Australian Capital Territory	6	
Northern Territory	1	
Queensland	7	
South Australia	5	
Victoria	8	
Western Australia	5	

Table 2: Comparison of confidence in prescribing practices between NPs and NP candidates

Question	Response	NPs %	NP candidates %	p
Confidence meeting legal requirements	Very confident	60	25	<0.001
	A little/ moderately confident	37	70	
	Not at all confident/ unsure	3	5	
Confidence adding new medication	Very confident	30	9	0.007
	A Little/ moderately confident	57	82	
	Not at all confident / unsure	13	9	
Confidence providing client education on medications	Very confident	67	54	0.09
	A Little/ moderately confident	33	66	
	Not at all confident/ unsure	0	0	
Confidence providing education to health care professional on medications	Very confident	50	36	0.17
	A Little/ moderately confident	45	62	
	Not at all confident/ unsure	5	2	

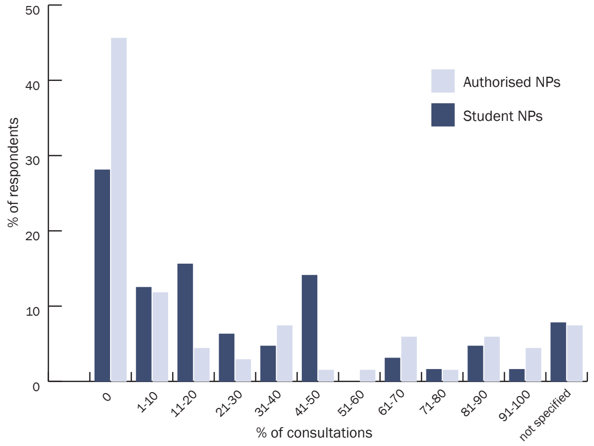
High levels of confidence were reported in providing client education regarding medications with 67% of NPs and 54% of NP candidates reporting being very confident and the remainder reporting being either moderate or a little confident in this practice. Slightly lower levels of confidence were reported by both NPs and NP candidates in providing education to other health care professionals with 50% of NPs and 36% of NP candidates reporting being very confident in this practice. This difference in self reported confidence was not statistically significant, as opposed to confidence in the area of meeting legal requirements of prescribing and adding new medications in which NPs reported being more confident than NP candidates (table 2).

Figure 1: NP consultations discussing CMI



Over two thirds of NPs and NP candidates (78% and 77% respectively) reported they generally highlight the active ingredient in a medicine to their clients. The majority of participants (92% of NPs and 93% NP candidates) identified they were aware of CMI leaflets. However, despite this awareness, 46% of NPs and 28% of NP candidates reported they did not discuss CMI leaflets during consultations (figure 1), and 40% of NPs and 27% NP candidates reported they did not recommend CMI leaflets during consultations (figure 2).

Figure2: NP consultations providing or recommending CMI



DISCUSSION

To the best of our knowledge, this is the first Australian research to report on the prescribing practices of NPs in relation to providing medicine information to clients. Respondents were questioned on how confident they felt in relation to the various aspects of the prescriber's role including provision of medicine information to their clients.

High levels of confidence were reported in providing client education regarding medications. No respondents reported feeling 'not at all confident'. No comparable NP studies were found, however in a study conducted by Hegney, Plank, Watson, Raith and McKeon (2005) of Australian Registered Nurses (RN) with an endorsed expanded medication practice role, it was identified that 86% of respondents felt confident in providing medication knowledge to clients. This suggests that providing medication information is inherent in nurses without necessarily having advanced practice recognition. This is supported by the findings from this study where no significant difference in reported confidence in providing client education between NPs and NP candidates was found. As could be expected however, there was a significant difference in other areas of confidence such as meeting the legal requirements of prescribing and adding a new medication to a patient's treatment regime.

Nurse practitioners who do not perceive they have a high degree of confidence in providing client medicine education may be unable to provide their clients with sufficient or appropriate information on medicines, therefore failing to meet prescriber responsibilities for quality use of medicines. Prescriber responsibilities for quality use of medicines, as outlined in the National Strategy for Quality Use of Medicines (Commonwealth of Australia 2002), include providing information, education and discussion, and assisting people in making informed decisions. Lower confidence levels in areas of prescribing practices, such as providing medicine information to clients, may potentially result in NPs who have the authority to prescribe choosing not to do so as reported in a number of studies linking self reported low prescriber confidence levels with decreased prescribing practices (Hall et al 2006; Latter et al 2007b). Given the identified advantages of nurse prescribing, the decision not to prescribe could be limiting both client and health system benefits.

The majority of respondents identified they would generally highlight the active ingredient of a medicine to their client. However, 22% of NP respondents indicated they did not or were unsure if they did. This suggests that some NP prescribers are not providing complete information about medicines to their clients and there may be a difference between espoused confidence and belief and practice, as has been identified by Latter et al (2007a).

Consumer Medicine Information leaflets are an important tool for nurse prescribers in promoting a partnership with their client and enabling the client to make an informed decision about their medicines. The use of and discussing CMI in consultations could potentially aid medicine information giving through prompting and guiding conversation. Consequently NP confidence in their ability to provide medication information may increase. Ninety-two percent of NPs and NP candidates combined were aware of CMI. However, 40% of NP respondents indicated they never provide CMI to their clients. Just 4% percent of NPs indicated they always provide and discuss CMI with their clients. It is possible the identified low number of NPs providing CMI is related to a low number of NP consultations that involve prescribing. These results contrast with those of Hegney et al (2005), who identified that 22% of Australian Registered Nurses with an endorsed expanded medication practice role always provided CMI to their clients, and 14% stated they never provided CMI.

CMI related information has been identified by members of the public as information they would most like to receive from a prescriber. A study conducted by Berry et al (2006) aimed to assess the views of a convenience sample of 74 members of the public on nurse prescribing in the UK. Ninety-five percent of participants selected the two highest ratings when asked to what extent they want the nurse prescriber to provide information on a prescribed medication. CMI related information, such as the possible side effects of a drug (rated 5.76 on a scale of 6) and how a drug works (5.73 out of 6) were identified as the most important to the participants.

LIMITATIONS

The results of the survey presented in this paper must be interpreted in light of a few limitations. Firstly, due to a response rate of 27% of NPs practising in Australia at the time of the survey the sample may not be representative of all NPs and therefore generalisation of the findings may be limited. The inability to determine numbers of student/NP candidates across Australia and estimate the response rate of NP candidates must also be factored into interpretation. The study findings are further limited by the self-selection and self-reporting aspects of the survey.

CONCLUSION

Nurse Practitioners in Australia have the authority to prescribe medicines to their clients. In order to maintain practice that reflects the objectives set out by the National Medicines Policy in Australia it is essential that NPs have the ability and confidence to provide medicine information to their clients. Providing appropriate and easily understood medicine information will contribute to the promotion of optimal health outcomes and increase consumer satisfaction with NP services.

The findings reported in this paper, the first Australian study in this area, indicate respondents reported high levels of confidence in the area of provision of education to patients related to medicines. This level of confidence, however, may be incongruent with actual prescribing behaviour as not all respondents reported providing their clients with comprehensive medicine information or using CMI leaflets in their prescribing consultations. As a critical and often contentious component of NP practice, client education in relation to medicines therefore must be a focus of NP's critical reflection on their prescribing practice.

RECOMMENDATIONS

Nurse Practitioner prescribers and their clients may benefit from use of a tool such as CMI leaflets to ensure consumers receive and understand medicine information and prompt thorough discussion of medications prescribed. In Australia, written medicine information is not automatically provided as a package insert with medicines. Prescribers therefore need to be proactive in providing consumers with this information or suggesting they obtain one from the pharmacy. Further research into Australian NP prescribing practices, and NP services as a whole is imperative to the future development of the NP role and NP services in Australia.

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Inflammatory bowel disease management: a review of nurses' roles in Australia and the United Kingdom

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KEY WORDS

inflammatory bowel, nurse, Crohn's disease, ulcerative colitis, role

ABSTRACT

Objective
To explore the role of Australian nurses in the provision of inflammatory bowel disease (IBD) health services.

Design
A questionnaire survey.

Setting
Hospitals in Australia and the South West of the United Kingdom (UK).

Subjects
Inflammatory bowel disease nurses.

Main outcome measure
The diversity of IBD services.

Results
Twelve Australian and 19 UK nurses returned completed questionnaires (approximately 40% response rate). Most participants were registered nurses, aged between 25 and 55 years. More UK participants were IBD specialist nurses (84% vs 42%; $p = 0.019$) and the majority of Australian nurses being clinical trial coordinators. The UK nurses had more interest in IBD (100% vs 75%; $p = 0.049$) and spent more time in IBD nursing (63% vs 25%; $p = 0.043$). Nurses in the UK provided more IBD services and tended to perceive a higher level of support from management (52% vs 25%; $p = 0.12$). Fewer IBD services were provided by Australian nurses despite their equivalent educational attainments, years of IBD experience and level of autonomous practice. Australian nurses identified the lack of funding, time and management support as barrier to service development. Australian nurses were less likely to be employed as dedicated IBD nurses and were required to provide nursing services to a wider clientele.

Conclusion
In this study Australian IBD nurses had less specialised roles, attracted less funding and management support. Australian nurses were more focussed on clinical trial coordination and provided for a wider clientele.

INTRODUCTION

This study examined the role of inflammatory bowel disease nurses in Australia and the United Kingdom.

Background

Inflammatory bowel disease encompasses Crohn's disease (CD) and ulcerative colitis (UC). These are conditions where the intestinal mucosa becomes inflamed with no apparent cause. Symptoms of inflammation are increased bowel frequency, diarrhoea, faecal urgency resulting in incontinence, passage of blood per rectum, loss of appetite, anaemia, fatigue, abdominal pain and tenderness (Jewel et al 2001).Some patients may also experience extra intestinal complications involving inflammation in the biliary tract, skin, mouth, eyes and joints (Jewell et al 2001).

Inflammatory bowel disease is a chronic relapsing and remitting condition that can cause high morbidity and a reduction in health related quality of life. People of all ages can develop IBD, but commonly young people are affected. Inflammatory bowel disease therefore impacts on the formative years of life throughout childhood and young adulthood. People with IBD report a greater disease burden than other common digestive disorders and have fewer employment prospects when the disease is active (Calsbeek et al 2006). The impact of IBD affects family members to varying degrees. The risk of developing colorectal cancer increases in patients who have extensive IBD for long periods of time. Other complications such as malnutrition, growth failure (in children and adolescents) and osteoporosis are also common.

Because of the morbidity and chronicity of IBD and the potential for complications, long term medical follow up and other multi-disciplinary input would be warranted (Gibson and Iser 2005). Having a multi-professional approach to care delivery could improve the holistic approach and increase the diversity of services. Addition of a specialist nurse might further improve the appropriateness of self-management and the access to specialist services by providing on-going education and a point of contact during disease relapse (Mawdsley et al 2006). Nurses are able to provide additional support and services targeting quality of life issues including how to cope with urgency and incontinence which are common in acute episodes of IBD. (Mason 2007)

Literature Review

The concept of IBD nursing was not new in some countries such as England and Wales (Phillips 1995). In the early 1990s, a number of nurses independently developed their roles to include supporting patients with IBD (S. Phillips, personal communication, May 5, 2001). The nurses' role in IBD has been evaluated in several hospitals, and a reduction in the number of hospital stays, outpatient attendance and an improvement in quality of life measurements have been reported (Nightingale et al 2000). Fifteen years on, the role of the IBD nurse is well established in many hospitals in the UK (Roberts 2007; Murphy 2006). The IBD nursing role had been endorsed by the British Society of Gastroenterology (Carter et al 2004) and the National Association of Crohn's and Colitis (Birmingham 2005). Recognised qualification was available for nurses who wished to specialise in this area to enhance understanding of the needs of this patient group (Burdett Institute of Gastrointestinal Nursing, n.d.)

In Australia, the role of IBD nurse is a new concept. Only two nurses were known to hold official funded positions in this field in 2007 (S. Buckton, personal communication, September 30, 2007; S. Mason, personal communication, March 31, 2007). A number of nurses provided some support and services to people with IBD within other positions (J. Philpot, personal communication, October 23, 2007; B. Headon, personal communication, January 10, 2006; Reid 2005; Leach et al 2005). Types of services offered include telephone support, blood test monitoring, new patient education and teaching self injections.

In the context of different systems of health care structure, the role of an IBD nurse in Australia might differ from their UK counterparts. The IBD patient group is expected to be a high consumer of outpatient and inpatient health services throughout the patients' lifetime (Access Economics Pty Limited 2007). Evaluation of health service delivery to this client group was, therefore, valuable both in terms of health economic calculation and quality improvement in service provision.

To date there had been no study examining nurses' role in the field of IBD in Australia. It was unclear whether nurses contributed to providing specialist services to this client group. Nurses had an interest in IBD and had the desire to input nursing expertise in this field, as evidenced by the formation of the Australian IBD nurses' network group (Reid 2007).

Current study

The primary aim of this study was to increase understanding of the status of the Australian IBD nursing role. This survey was designed to identify the attributes of Australian IBD nurses, their current job roles and their work settings.

The secondary aim was to identify important characteristics that had an impact on service development. The same survey was conducted in a group of established IBD nurses in the UK as a comparison. Results would provide useful insight for health service developers, consumers, education providers and other IBD interest groups. In addition topics for future research could be identified.

METHODOLOGY

This is a pilot study. The study utilised a questionnaire to elicit information from IBD nurses. A validated questionnaire was unable to be sourced. The researchers had, therefore, developed the questionnaire used in the study. Internal validation was obtained by trialling the questionnaire on one potential Australian participant and one potential British participant, whose suggestions were incorporated into the final version. Inflammatory bowel disease nurses in the study worked in health facilities across Australia and the UK.

The final questionnaire consisted of 20 questions. It was constructed to be e-mailed out to each potential participant. Questions one to six gathered information on demographics, nursing qualifications, educational attainment and IBD experience. Questions seven to fifteen evaluated nurses' current job roles, client groups, service provision to IBD patients, interest in IBD, level of perceived support, professional status and barriers to providing IBD services. Questions sixteen to twenty evaluated information on the work setting. Throughout the questionnaire nurses were invited to provide additional free text comments.

Participants were recruited from invitations sent out to nurses on the contact lists for Australian IBD and the UK South-west IBD nurses. In addition, informal invitations also took place between potential participants and their colleagues.

STATISTICAL ANALYSIS

Descriptive data were obtained and displayed. Fisher's exact test was used to calculate statistical significance. Fisher's exact test was considered an appropriate test to use as the study consisted of a small number of participants and involved the comparison of two groups.

FINDINGS

Twelve Australian and 19 UK nurses responded. The response rates were 31% and 54%, respectively.

Experience and qualifications

Nurses were predominantly registered division one nurses in both countries (Australian group = 92%; UK group = 100%). The majority of participants had experience in IBD for 4 or more years (75% in the Australian group and 79% in the UK group). Some had over 10 years of IBD experience (42% in the Australian group and 21% in the UK group).

Nurses' academic achievements varied. More Australian nurses achieved a hospital certificate (33% versus 11%) or a Master degree (42% versus 26%). More UK nurses had a Bachelor degree (26% versus 8%) or a post-graduate diploma (26% versus 8%), and had an IBD-specific qualification (42% of the UK participants versus 8% of the Australian participants). However, all these differences did not reach statistical significance.

Demographics

All participants were women and aged 25 years or above. Most of the UK participants indicated they were in the 25-40 years age range (53%). Most of the Australian nurses indicated they were in the 41-55 years age range (67%). Australian participants came from New South Wales, Victoria, South Australia, Western Australia, Queensland and the Australian Capital Territory. No participants came from the Northern Territory or Tasmania in this study. The UK participants were from the south west of the UK.

Job Descriptions

Inflammatory bowel disease nurses filled a wide range of roles. As shown in table 1, UK nurses were more likely to be 'IBD specialist nurses' and Australian nurses 'clinical trial research nurses'.

Table 1: Nurses' roles

	Endoscopy or Day Procedure Unit nurse	Clinical trial research nurse	General Gastro Clinic nurse	Specialist IBD clinic nurse	IBD specialist nurse	Other
Australia (N=12)	0	7 (58%)	1 (8%)	4 (33%)	5 (42%)	5 (42%)
UK (N=19)	2 (11%)	1 (5%)	0	6 (32%)	16 (84%)	7 (37%)
P-value[a]	ns	0.002	ns	ns	0.02	ns

[a] Fisher's exact test

ns Not significant

Provision of IBD services

As outlined in table 2, all British nurses were operating a telephone support line, and providing IBD education, coordination of IBD treatment, face-to-face nurse-led clinics, and writing guidelines and protocols for IBD. More British nurses engaged in general ward nursing, IBD treatment monitoring, telephone clinics, prescribing, ordering tests, nurse endoscopy (as a nurse practitioner), and smoking cessation support. A smaller proportion of Australian IBD nurses were providing similar services.

Table 2: Provision of IBD services

	Australia (n=12)	UK (n=19)	P-value
Telephone support line	9 (75%)	19 (100%)	0.05
IBD education	11 (92%)	19 (100%)	0.39
IBD treatment coordination	10 (83%)	19 (100%)	0.14
Nurse-led clinics	3 (25%)	19 (100%)	0.00001
Writing guidelines and protocols for IBD	5 (42%)	19 (100%)	0.0003
General Ward nursing	4 (33%)	12 (63%)	0.15
IBD treatment monitoring	8 (67%)	18 (95%)	0.06
Telephone clinics	2 (17%)	10 (53%)	0.07
Prescribing	1 (8%)	10 (53%)	0.02
Ordering tests	6 (50%)	18 (95%)	0.007
Nurse endoscopy as (NP)	0	8 (42%)	0.01
Smoking cessation support	1 (8%)	11 (58%)	0.008

Table 3: Other client groups

	Australia (n=12)	UK (n=19)	P-value
None (i.e. dedicated IBD)	1 (8%)	9 (47%)	0.05
Coeliac disease	4 (33%)	3 (16%)	0.38
General gastro	7 (58%)	6 (32%)	0.26
General surgical	1 (8%)	0	0.38
General medical	2 (17%)	1 (5%)	0.54
Functional gut disorders	2 (17%)	3 (16%)	1
Colorectal	1 (8%)	2 (11%)	1
General outpatients	1 (8%)	2 (11%)	1
General endoscopy	0	1 (5%)	1
Other	5 (42%)	3 (16%)	0.21

More United Kingdom nurses were providing dedicated services for IBD patients (47% versus 8%, p = 0.05). Australian nurses were providing services for a wider range of conditions (table 3).

Nurses' interest in IBD

All nurses expressed an interest in providing services for IBD patients. However, more enthusiasm was shown among the United Kingdom nurses (100% vs 75%, p = 0.05).

Perceived Support for IBD role development

There was more perceived support from senior nursing managers and senior medical staff in the United Kingdom group, as outlined in table 4.

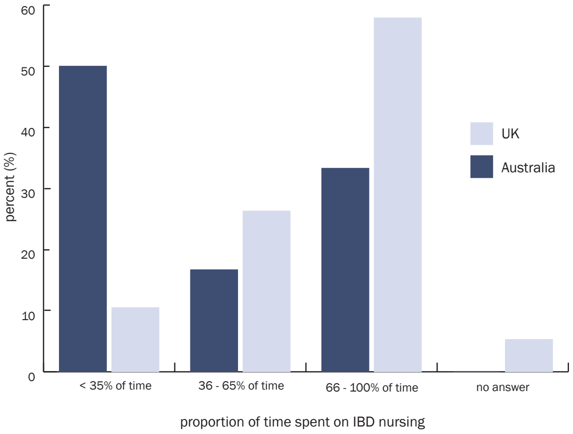
Table 4: Senior management support for developing IBD services

Senior nursing support available	Australia	UK	Senior medical support	Australia	UK
Strongly agree	0%	26%	**Strongly agree**	42%	79%
Agree	50%	68%	**Agree**	50%	16%
Disagree	42%	5%	**Disagree**	8%	5%
Strongly disagree	8%	0%	**Strongly disagree**	0%	0%

Other Role Characteristics

Nurses were asked whether autonomy, advanced practice, reporting directly to gastroenterologists and GPs, providing education for fellow nurses, and involvement in conference presentation were features of their job roles. The majority of the Australian and UK nurses were reporting directly to their senior medical colleagues. About one third of nurses in both groups had involvement in conference presentation. However, UK nurses tended to have more autonomy (63% vs 33%, p = 0.11), and more frequently to exercise advanced practice (47% vs 25%, 0.19) and to provide education to fellow nurses (42% vs 25%, p = 0.28), although these differences were not statistically significant.

Figure 1: Time spent in IBD nursing



As shown in figure 1, Australian nurses spent less time in IBD-specific nursing than their UK counterparts. These answers were in agreement with other answers where 47% of UK participants exclusively provided services to IBD patients. Having time was a factor thought to impact on IBD service provision.

Potential Services

Nurses were asked if they felt additional services should be provided for people with IBD and what these should be. The most popular IBD services that Australian nurses wished to offer were operating telephone support line (50%); paediatric transition care (50%); cigarette smoking cessation support (50%); and nurse clinics (45%).

Two of these services (operating telephone support line and nurse clinics) were already being provided by all of the UK IBD nurses in the study.

Reasons for not providing IBD services

Australian nurses did not provide IBD services because they were 'not part of [their] job description' (58% versus 11%, p = 0.01, statistically significant). Australian nurses had less 'nursing management support' (50% versus 16%, p = 0.05, statistically significant). Australian nurses also more frequently cited 'insufficient time' (75% vs 50%, P = 0.19), 'lack of medical support' (25% vs 0%, p = 0.05, statistically significant) and 'lack of funds and budget allocation' (83% vs 42%, p = 0.03, statistically significant) as reasons for not providing additional services. 'lack of knowledge or expertise' and 'inadequate facilities' was cited equally by nurses in both countries (33% of Australian and 26% of UK nurses, p = 0.80).

Work Place Characteristics

The majority of nurses worked in a public facility (92% Australian vs 84% UK). More Australian nurses worked in a tertiary health facility (75% vs 11%) and more UK nurses worked in a secondary health facility (79% vs 8%). The remainder of the respondents worked in a primary health facility (17% Australian vs 11% UK). In addition clinical trials were more likely to be conducted in tertiary centres.

Nurses from both groups described similar characteristics in the patient population they served. Nurses served a mainly urban patient population or a mixture of urban and rural patient population. Australian nurses in the study had a tendency to work with more gastroenterologists and in smaller facilities (100–300 beds). UK nurses tended to work with fewer gastroenterologists and in larger facilities (>500 beds).

DISCUSSION

Being a pilot study, study results should not be extrapolated to the whole target population. However, the results do provide insights into differences and similarities between conditions, attitudes and expectations of IBD nurses in the UK and in Australia.

The higher percentage of older Australian nurses might explain why more Australian nurses had hospital certificates as their highest qualification. Prior to the 1990s the majority of nurses were trained within the hospital system achieving a hospital certificate. After this time nurses' training became increasingly based in the university system. At the completion of training the result was the acquisition of a Bachelor degree. (Russell 1988.)

British IBD nurses surveyed were frequently providing a wider diversity of IBD services. This is not unexpected as IBD nursing has progressed rapidly in the UK in the past fifteen years and the role of an IBD nurse has been accepted amongst gastroenterologists, IBD patients and health service providers (Roberts 2007; Murphy 2006).

Nursing Expertise Under-utilised in Australia

Australian nurses may be under-utilised in terms of their skills and experience when compared with their counterparts in the UK where nurses are an integral part of a multi-professional team especially in chronic disease management. In Australia, the specialist nurses role development is evident but has been slower. Some of the barriers to maximising nurses' input in other disciplines have been identified as relating to funding, regulatory and inter-professional issues (Halcomb et al 2008). Nurses who are entrepreneurial sometimes lack the authority to effect changes successfully. They are dependent on cultivating relationships with more powerful others in order to develop new services and implement new ideas. In this study more Australian nurses reported inadequate support from senior nursing personnel.

Evidence of Effectiveness

It is difficult to measure the value of a nursing role. Benefits to patient outcome are likely to be in the form of their perception of increased support. However one study has shown that specialist nurses were effective in monitoring IBD treatments (Holbrook 2007.) Patients do not necessarily consider increased technical skills as the most valuable in their specialist nurse. Instead patients may perceive support, advice, caring, empathy and disease management to be of particular importance to their care (Belling et al 2008).

Inflammatory bowel disease service delivery can be made more efficient and more demand-directed. This is being implemented and evaluated in several countries in Europe including Sweden where service redesign included a direct telephone line, appointment schedule according to expected needs, acute appointments being available daily, traditional follow up replaced by yearly telephone follow up and the registration of any ward utilisation (Rejler et al 2007). The development of nurse-led services such as patient education, pain management and support for quality of life issues is also evident in the USA (Dettinger et al 2008; Ruthruff 2007). There may be potential to re-organise IBD management to improve efficacy. Direct comparison of alternative modes of service delivery including nurse-led treatment monitoring, treatment coordination and primary care involvement may be required (Altschuler et al 2008).

IBD Health Expenditure in Australia

Health expenditures on IBD are high and were conservatively estimated as $68 million in 2005, as shown in a recent Australian economic evaluation commissioned by the Australian Crohn's and Colitis Association (Access Economics Pty Limited 2007). The total financial costs of IBD in 2005 were estimated to be near $500 million. This cost included health expenditures and productivity losses. It had been observed that IBD patients in Australia frequently utilised more than one gastroenterologist's services (B. Headon, personal communication, January 30, 2007). This would result in service overlap, fragmentation of care and a high consumption in Medicare claims and private health care.

Funding for IBD nursing in Australia

In this study, more UK participants were 'IBD specialist nurses' and more Australian participants were 'clinical trial coordinators'. This may be an indication there was a lack of dedicated funding source in Australia. The higher proportion of clinical trial coordinators in Australia correlated to the higher percentage working in tertiary referral centres. Nursing involvement with IBD patients may be more prevalent in tertiary sectors in Australia. The opportunity for additional support for IBD patients was gained through funding from conducting clinical trials. A clear funding source and a dedicated job description may be related to more IBD service provision.

A higher IBD interest was associated with more IBD services being provided. Nurses employed specifically as 'IBD nurses' were likely to feel more positive, interested and were more inclined to provide IBD services. Having time was an important determinant in the provision of services. It is difficult to provide additional services when other job responsibilities are demanding as is the case with clinical trial coordination. Australian IBD nurses perceived a lack of funding and dedicated time as barriers to service provision.

At present, nursing services do not attract Federal Government funding in Australia. Even in the case of nurse practitioners where they provide services equivalent to general practitioners, they are not eligible to be given a Medicare provider number. As a result, the costs of nursing services are not recoverable from the funding stream designed to support such services (Nurse Practitioner – Like Services in Residential Aged Care Services, 2008).

The future of IBD nursing in Australia

People with IBD have a normal or near normal life expectancy (Andrews and Goulston 1994). Inflammatory bowel disease nursing will become increasingly important due to an aging population. Secure government funding is essential for the future of IBD nursing development. Since the Federal Government takes most responsibility for ambulatory care, such funding would be best in the form of Federal specific development grants or Medicare reimbursement. Provider status is an important element in order to recognise and sustain a health care profession. Health service providers either choose to subsidise non-reimbursable activities or choose not to provide these services. In addition services that are not reimbursed through the private system tend not to be provided.

LIMITATION

Study participants were members of IBD interest groups and provided a convenient sample. Results therefore belong to a selective group and may not apply to the rest of the target population. The lack of a definition for an IBD nurse, an emerging new role and the small number involved in the study made it difficult to perform a direct comparison between the two countries. Participants included specialist nurses and clinical nurses whose roles are inherently different. Opinions from other stakeholders such as clinicians, patients and decision makers within health services would be relevant. These are beyond the scope of this study.

CONCLUSION

The study demonstrated that IBD nurses were providing less IBD specific services in Australia, compared to nurses in the UK. Factors preventing service development have been cited to include a lack of senior medical and nursing support, insufficient funding and a low emphasis of the IBD nursing role within nurses' job descriptions. There is potential to improve the provision of IBD services and reduce health related expenditure in IBD by increased utilisation of IBD nurses in Australia, through Medicare funding.

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Rethinking student night duty placements

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KEY WORDS

clinical placement, graduate preparation, night shift, nursing student, work readiness

ABSTRACT

Objective
Student clinical placements principally occur over morning and afternoon shifts. This paper reports findings from a qualitative study that investigated experiences and value of night duty placements for undergraduate nursing students.

Design
Final year students from one university were invited to participate in a two week night shift placement. A qualitative approach involving focus groups with students and ward nurses, prior to, and following the clinical placements was used. In addition, individual interviews were conducted with other key stakeholders from the university and health care service.

Setting
The study was conducted in one metropolitan public hospital in Victoria, Australia. A clinical teacher was employed by the university to provide student support during the placement.

Subjects
Fourteen final year nursing students, five permanent night staff from the hospital and four key personnel representing university and hospital perspectives consented to participate.

Main outcome measures
All transcripts were thematically analysed together within the context of placement value and experience.

Results
Three themes emerged from pre-placement interviews: *nature of night shift, preparing to be a graduate, and change and adjustment*. Post-placement interviews revealed the themes: *time to learn and time to teach, adjusting, continuity and preparing to be a graduate.*

Conclusions
Night duty placements offered a range of possibilities and challenges. They provided opportunities for skills consolidation, enhanced understanding of nursing work and were perceived to contribute to readiness for graduate practice. Further research is needed to explore such placements on a larger scale.

INTRODUCTION

Clinical education provision in undergraduate Australian nurse education most commonly involves students attending clinical placements from Monday to Friday, either on morning or afternoon shifts. Few individuals may experience night duty work until they become registered nurses. This work can be vastly different to that during the day. Lack of graduate preparation for such situations may contribute to perceptions that they lack work readiness and familiarity with realities of clinical nursing practice settings (Heath 2002; Department of Human Services 2001).

LITERATURE REVIEW

Clinical placements allow students to apply classroom learning into 'real' clinical situations. Despite having clinical experiences in their undergraduate education, graduates express feelings of being unprepared for their roles on entering the workforce (Newton and McKenna 2007). This has been partially attributed to the existence of a theory-practice gap (Maben et al 2006) but may also relate to the nature of clinical exposure. Little research to date has explored different types of shifts that students undertake during their courses and the impact of these on graduate readiness.

Difficulties and stresses in making the transition from student to registered nurse have been well described. These include lack of confidence and/or competence, fear of making mistakes, increased responsibility, encountering new situations, environments and procedures for the first time (Delaney 2003; Oermann and Garvin 2002), dealing with families (Duchscher 2001) and time pressure limiting care delivery (Maben et al 2006). Chang and Hancock (2003) found graduates experienced role ambiguity in the first few months after commencement, and ten months later experienced role overload. Kapborg and Fischbein (1998) found new graduates experienced difficulties in feeling relaxed during off duty time so may not have had opportunities to deal with their work-related stress.

Many new graduates entering the workforce for the first time, may be newly living away from home and coping with demands of shiftwork and responsibilities inherent with their roles (Ulrich 2003). Halfer and Graf (2006) suggest that new graduates grapple with dissatisfaction in work schedules for up to twelve months following commencement of work. They assert that graduates undergo “a grieving process... through loss of the academic schedule. They no longer have school schedules with weekends and holidays free and winter/summer vacations” (p154-155). A study by West et al (2007) found new graduates experienced significant difficulty adapting to lifestyle effects of shift work.

Night duty nursing may be first experienced during the graduate year. This has been identified as clearly different to day or afternoon shifts. Bohle and Tilley (1998) examined attitudes of 130 registered nurses towards shift work in their first 15 months following graduation. Their findings suggest that nurses found night duty to be more peaceful, allowed greater independence, required more responsibility and was friendlier. However, the work was perceived as less interesting than during the day, shifts longer, more lonely and tiring. Overall, participants rated nights more negatively than other shifts due to increased fatigue, sleep deprivation, gastrointestinal complaints, impact on leisure time and social activity.

Much available literature around night duty work deals with complications arising from altered sleep patterns and circadian rhythm, resulting from misalignment between the body’s biological clock, and timing of sleep and wake periods (Santhi et al 2005). The body is pushed into a pattern contrary to its natural program (Grossman 1997), consequently, altering sleep patterns. Daytime sleep may be shorter in duration and of poorer overall quality (Coburn and Sirois 2000).

In a recent Swedish study, Campbell et al (2008) explored nurses’ learning during the night shift. Change-of-shift report, personal rounds and interaction with doctors were shown to contribute to learning. They concluded night duty could offer important learning opportunities for students, however, no literature was sourced around students' experiences and learning outcomes from night placements. It is possible that learning and clinical performance may be altered. Research on emergency physicians has found that undertaking serial night shifts causes a decline in cognitive performance (Dula et al 2001). Fatigue resulting from sleep deprivation may lead to accidents (Gold et al 1992), greater incidence of mistakes, and ultimately impact on patient care (Kunert et al 2007; Muecke 2005).

METHODS

The purpose of this study was to explore experiences and value of night shift placements for undergraduate students. A pilot program was developed by one university and a partner health care service to examine night shift placements for third year undergraduate nursing students through student, ward staff and key stakeholder perspectives.

Final year students were invited to undertake a clinical placement consisting of two weeks night duty, along with a focus group interview prior to, and following the placement. Ethical approval for the project was obtained from both relevant university and health care service human ethics committees prior to commencing recruitment. Subsequently, two groups of seven students participated. Each group was supported during the placement by a clinical teacher employed specifically to facilitate learning and assist adaptation to the night duty environment. Pre and post placement focus groups were conducted with five permanent night ward staff who were to be involved in providing student experiences.

Pre-placement interviews were designed to explore expectations of students and staff and address any concerns that may arise. Students were asked their reasons for participating, what they hoped to learn, and any concerns. Ward staff were asked about their expectations of students, perceived challenges and concerns. Post-placement interviews examined students' and staff experiences and renewed perceptions on completion of the placement. Here, students were asked about fulfilment of their expectations, significant learning experiences, contribution of the placement to their graduate readiness, and whether they recommended such placements for other students. Staff were asked their perceptions of the placements, student learning and contribution to graduate preparation, benefits and limitations. Pre and post-placement interviews facilitated comparisons between expectations and actual experiences. Finally, key personnel from the university and hospital were invited to participate in one-to-one semi-structured interviews to explore any other issues arising. Two clinical teachers and two clinical administrators (one university and one hospital) agreed to participate. Focus groups and individual interviews were audiotaped and transcribed verbatim. Thematic analysis informed by the work of Ezzy (2002) was employed in analysing the data. This entailed open coding to initially sort and categorise data, axial coding to explore relations between codes and selective coding to finalise categories and the overall story.

FINDINGS

Three themes emerged from both pre-placement interviews and post-placement interviews relating to experiences and placement value.

Pre-placement interviews

Themes emerging from pre-placement interviews were: *Nature of Night Shift*, *Preparing to be a Graduate* and *Change and Adjustment.*

Nature of Night Shift

Students and staff perceived that night shift would be different to that experienced during the day. Students perceived it would be quieter than they had been used to but there was also uncertainty about what nurses did during the night.

It won't be so busy as working on a day, passing a lot more time. I don't have any real idea what the night staff do or whether there will be periods of nothing. (Student)

Some students felt they may see more at night.

You see so much more than you do during the day such as accident cases. (Student)

I actually think that you will see things – conditions that will flare up during the night that you don't see during the day. (Student)

Nursing staff recognised other aspects that were different. Less support than during the day was identified as particularly important and staff were keen to help students deal with this. Emphasis was placed upon the need for teamwork at night.

You don't have all the supports around you... You cannot say the blood pressure's this and just leave it at that...You're going to have to take the steps you need...If I have them [students] I want to guide them through that. (Staff)

At night its all teamwork. That's the main thing about nights, its all teamwork. (Staff)

Documentation was also emphasised by staff as an important component of working at night.

Learning how to fill out charts correctly so that people can read them, and knowing what to document and how to do it correctly, looking after drains, knowing that they have to be emptied at midnight and that sort of thing because they [students] don't do during the days. (Staff)

Preparing to be a Graduate

A night duty placement was seen by staff and students as beneficial for understanding graduate roles and nursing practice realities. Students felt the placement would better prepare them for their graduate year, recognising benefits in undertaking the rotation with support in a student role.

It is a reality of our job. Nurses work 24 hours a day. (Student)

You won't feel so anxious next year when you are faced with going onto nights. (Student)

I want to actually do a night and feel what its like. Learning how to do things in the dark. (Student)

If you do feel uncomfortable it is a lot easier to step aside and say 'help' than in a grad position when you are the nurse. (Student)

Staff saw benefits in having better prepared colleagues to work with.

When you get grads onto nights they're pretty lost to start with because they've got no confidence of what to do on nights. They're suddenly thrown in as a grad and they've got eight patients to look after. (Staff)

Change and Adjustment

The final theme emerging in the pre-placement interviews was around adjustments that would be necessary. This not only related to students, but also to staff who were having students for the first time. Understanding where students were at, as well as letting students undertake tasks they would do automatically were the main aspects raised.

I think its just getting a bit of confidence in them [students]. Like suddenly you've got students and knowing just what they can and can't do. (Staff)

Getting them to do something rather than doing it yourself. It is like you just get on and do...Just learning to slow down enough and give them something to do and supervise them. (Staff)

Given students were undertaking night duty for the first time, they raised a number of issues relating to adjustment. These involved perceived physical and social alterations that would be needed. Many students were eager to explore their own coping mechanisms.

Learning how to cope, not just the night shift but during the next day, and then going back into doing nights. (Student)

It will be interesting to see how we will function at four o'clock in the morning. (Student)

Especially over the weekends, re-adjusting to being awake during the day and then back asleep at night and then changing back again. (Student)

Post-placement interviews

Post-placement interviews yielded extensive, rich data. Four themes emerged, these being: *Time to learn, Time to Teach, Adjusting, Continuity* and *Preparing to be a Graduate.*

Time to Learn, Time to Teach

One significant aspect emerging involved educational benefits of the placements. It was highlighted there was often more time to learn about things that were happening, as well as time for staff to teach than during the daytime.

You have time to actually understand why you are doing things and understand the diseases. You can pull things together. (Student)

You had time to read histories. And they [night staff] had time to teach us. (Student)

They actually got a lot out of it, getting time to understand why they were doing things (Clinical teacher)

I found I was in resus the other day and we intubated someone. Afterwards they [staff] sat down with me, showed me the equipment, how it all worked. I don't think during the day they would have that sort of time. (Student)

There were opportunities for many new learning experiences during the placements. In addition, previously learned skills and knowledge were able to be further refined. Students identified physical assessment and documentation skills as particularly necessary for night staff.

Even learning to assess people while they're asleep. Getting used to walking around with a torch in your hand and not bumping into things. (Student)

I've taken more bloods and done more ECGs in the past two weeks than I've ever taken. (Student)

I'd never taken blood before this placement and I did that on the ward. (Student)

Particular experiences were identified by students and clinical teachers not normally possible during the day, which added to overall placement benefits.

I've had a couple of code greys which is quite exciting. During the day you just don't get involved at all. At night you have to do something as well and help restrain. (Student)

They got to see things they wouldn't during the day. Like the certification process when someone has been brought to the hospital dead on arrival, how the process occurred, they learnt stuff about triage, how people are seen and what rating they are given. (Clinical teacher)

I got to see an underwater seal drainage straight from someone post-op and I've never seen that before. If it was during the day if there were other students around I just wouldn't have had the chance to see it at all. (Student)

Adjusting

As anticipated in pre-placement interviews, there was a process of adjustment for students. This included both physical and social factors, however, students did not place as much emphasis on these as they had in the pre-placement interviews.

The overall benefit for me is coping through the lull. When you're getting tired. You are really having to concentrate and it was a good opportunity to have insight into that. (Student)

The way a night shift works I now know that I can make it through the night. (Student)

Even organising your own life. I've struggled with paying the bills and ringing people before five o'clock. Getting to the post office by five o'clock I have to get out of bed by four and you're a bit sluggish and think I'll go tomorrow (Student)

Most students found changes to sleeping patterns not as great as expected. Some recognised patterns necessary for enhancing the sleep they were able to achieve.

You can't go to sleep as soon as you get home. You need to unwind and if you've got other appointments as well it throws you out. You have long standing things like doctor's appointments and you might only have two and a half hours sleep, that's when you struggle a bit. (Student)

Continuity

One unexpected positive aspect was that students were exposed to more continuity of care than previously experienced. Students and clinical teachers discussed how students were able to follow patients through from acute admission states to stabilisation.

They [students] had the time to stay with the same person and actually see when something was given to the patient and slowly watch the patient come good…looking at more complex treatment, seeing which way the patient was going to go and how to stabilise them. (Clinical teacher)

Seeing what happens before they come up on the ward and going through the emergency, the whole process (Student)

Continuity was also evident in students' enhanced understanding of twenty four hour nursing work. They recognised the continuous nature of nursing care delivery and how each shift impacted on the next.

It's nice to know what night shift actually do. You come on during the day and the day staff knock what the night shift do and its nice to see it from the other side. Its nice to see what the staff have to do, how they prepare patients in the mornings and how you help the day staff but also how the day staff help the night staff. (Student)

Preparing to be a Graduate

Placements were seen to contribute to students' readiness for graduate practice. Students were provided with opportunities to consolidate previous learning and clinical skills.

They have been able to consolidate some nursing practices. (Clinical teacher)

Getting blood and getting that down pat. You do so many [on nights] that you feel much more confident. (Student)

Even how things that are done during the day effect the night. The main one for me is the fluid balance charts. When you do them and they are incomplete and also preparing all the paperwork for the following day. Knowing how much easier things would flow. (Student)

For some students, the experience provided scope to develop confidence in their abilities. It allowed them to overcome anxieties about taking the next step into a graduate role.

I can't wait to get out there and work. I think this has made me want that [to be a graduate] more. (Student)

It made me realise what I can actually do. I was quite hesitant coming into this semester thinking there's only eight weeks of clinical and then you're on your own. (Student)

The experience provided students with a supported introduction into roles and responsibilities of nursing at night. Hence, as graduates it would be expected these individuals would have better understanding and preparedness for what would be expected of them.

I definitely think its beneficial. If they [students] rotate onto night duty as part of their grad program, this stint would definitely help them in regard to lives at home, adjusting to nights, sleeping during the day when on night shift, and being able to experience the day then the night shift as a different world. (Clinical teacher)

It gave them [students] confidence. They got a bit of autonomy where they could make independent decisions on their feet and they were making right decisions and were being applauded for that. (Clinical teacher)

The night duty [staff] don't have the support if a patient was to deteriorate. Whereas on days you have more nurses, the doctors are always floating around. But on nights there are fewer nurses and you have to call for the doctor. You have to have more patient skills. (Student)

DISCUSSION

This study explored experiences and value of night duty placements for undergraduate students, an area currently poorly researched. Findings indicate that placements allowed participants to appreciate the round-the-clock nature of nursing work prior to their graduate years. This is a time when learning to cope with shift work demands has been found to contribute to stress (Ulrich 2003). The present study supports Campbell et al (2008), where placements were found to offer different learning opportunities than students had encountered during the day. Similar to Bohle and Tilley's (1998) work with qualified nurses, students in this study found that the environment was quieter but this allowed them to make connections between theory and practice, and consolidate clinical skills in an environment where there was less competition for learning opportunities.

The night shift offers unique learning opportunities compared with those available during the day. Campbell et al (2008) identified that night duty nurses learnt through change-of-shift report, clinical rounds and interactions with doctors. The current study extends that understanding, identifying a range of unique learning opportunities for nursing students such as understanding patients' conditions, enhancing physical assessment skills, consolidating technical skills and experiencing greater continuity of care. The placement also provided students with opportunities to face physical adjustments to night duty work (Coburn and Sirois 2000; Santhi et al 2005) in a supported context.

The graduate year has been demonstrated to be stressful as the new nurse encounters unfamiliar situations and procedures, assumes greater responsibility (Duchscher 2001; Oermann and Garvin 2002) and confronts the demands of shift work (Ulrich 2003; Halfer and Graf 2006). Many individuals currently undertake their first night duty experiences as new nurse graduates. The findings of this study suggest that night duty placements as students may assist to overcome some challenges and potentially reduce stressors encountered during the graduate year. This requires particular consideration and further study.

While overall findings are positive, they need to be considered with caution as they cannot be generalised beyond the groups who participated. The study involved only two groups of final year nursing students placed in one public health care agency, and was limited by time constraints placed on the project. Further studies are recommended that incorporate students from other universities, other year levels and include other hospitals. Students who participated in this pilot study were in their final semester. It is unclear whether such placements would be beneficial earlier in undergraduate courses or whether they are more appropriate just prior to graduation. The value of night duty placements earlier in courses warrants further exploration. Finally, follow-up studies need to evaluate the impact of placements on actual graduate outcomes.

CONCLUSION

Night duty clinical placements offer a range of untapped possibilities and challenges for nursing students. This study suggests that these may promote graduate preparation potentially assisting graduate work readiness. Placements can allow students to consolidate skills, appreciate the continual nature of nursing work and experience continuity of care. Further work is needed to extend understandings of the value of night duty placements for students on their work as graduates.

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Practice nurses best protect the vaccine cold chain in general practice

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KEY WORDS

general practice nurse, vaccine cold chain, vaccine storage, general practice, Hunter, immunisation

ABSTRACT

Objective
Maintenance of the vaccine cold chain is integral to administering potent vaccines thereby protecting individuals and communities against vaccine preventable diseases. Previous studies have highlighted threats to vaccine cold chain integrity. The aim of this study was to assess vaccine cold chain integrity and to identify local factors affecting vaccine cold chain integrity in Hunter general practices, where approximately 85% of vaccines are administered.

Design
A quasi experimental research design was used to conduct a site audit of general practice vaccine storage facilities in both urban and rural areas of the Hunter region of New South Wales. Practice staff who handled vaccines completed a practices and knowledge questionnaire during the audit visit.

Setting
General Practice.

Subjects
This study was an area-wide survey of all Hunter general practice immunisation service provider sites (n=256) where an audit was conducted of all vaccine refrigerators in use at the time of the audit, and one questionnaire per site was completed with respect to the cold chain management of all vaccine consignments delivered within the previous three months (n=924).

Main Outcome Measures
Main outcome measures were adherence to acceptable vaccine cold chain management practices as identified by National Health and Medical Research Council guidelines and maintenance of vaccine refrigerator temperatures within the World Health Organization's (WHO) recommended range of 2°C and 8°C.

Results
A key finding from this study was the positive influence of general practice nurses on general practices achieving vaccine cold chain integrity as defined by WHO. Ninety-eight percent (98%) of general practices where a general practice nurse was employed maintained vaccine cold chain integrity whereas only 42% of general practices where no general practice nurse was employed (95% CI: 10, 58) achieved the same result.

Two types of vaccine refrigerators were identified in Hunter general practices; these were non-bar type and bar-type. Of 150 non-bar type refrigerators in Hunter general practices 97% operated within the safe temperature range for the storage of vaccines, while only 58% of the bar-type fridges maintained acceptable temperatures for vaccine storage (95% CI: 8 - 69).

Conclusions
Study findings highlighted the value of employing general practice nurses in general practice in relation to maintaining vaccine cold chain integrity, and encouraging such nurses to become authorised immunisers so they can participate in ongoing immunisation education. The study findings supported the argument to outlaw bar-type refrigerators for storing vaccines as these posed an unacceptable threat to vaccine cold chain integrity.

INTRODUCTION

In New South Wales (NSW), approximately 85% of childhood vaccination and almost all adult vaccination are undertaken in general practice. Immunisation coverage data suggests that vaccination uptake for children improved dramatically during the late 1990s (National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases 2002) following the implementation of a variety of national, state and local strategies. National strategies (Australian Government 1997) included the establishment of the Australian Childhood Immunisation Register, provision of financial incentives to encourage parents to vaccinate their children on time, provision of service provider financial incentives to encourage reporting of vaccine administration to the Australian Childhood Immunisation Register and increase the proportion of children fully vaccinated by individual service providers, and provision of immunisation coverage rate data by state, division of general practice and by area health service (Health Insurance Commission 1999).

Local strategies in the Hunter region of NSW since 1992 included improved access by service providers (registered nurses), particularly general practice nurses, to specific immunisation education, and qualifications. Since 2001 authorisation under NSW Poisons and Therapeutic Goods Act 1966 Amendment 2001) (NSW Government 2001) allows registered nurses to assess clients' suitability for vaccination and administer such vaccines as recommended by the National Health and Medical Research Council without a doctor's written orders. This qualification was supported by the local Area Health Service by providing annual immunisation education to all Hunter authorised nurse immunisers, ensuring that they were kept informed of current immunisation recommendations and acceptable practice, including vaccine cold chain management. If improved vaccination rates are to be translated into optimal protection against vaccine-preventable diseases for individuals and the community then vaccines need to be transported and stored at temperatures that ensure their potency (between 2°C and 8°C). Inappropriate transportation, improperly maintained or outdated refrigeration equipment, deficient temperature monitoring, and inadequate immunisation service provider education, may all compromise the vaccine cold chain and, thus, the effectiveness of immunisation.

A multifaceted quality assurance study was conducted in 2003 and 2004 to explore the integrity of the vaccine cold chain during transportation and after delivery to immunisation service providers in general practice. This article concentrates on factors associated with vaccine cold chain performance in general practice surgeries in the Hunter Region of New South Wales. A literature review related to assessment of the vaccine cold chain and possible risk factors associated with vaccine storage practices revealed eight articles. Only one, undertaken on the Central Coast of NSW (Lewis et al 2001), included most of the issues assessed during the Hunter study. No study has assessed the relationship between employment of a nurse and integrity of the vaccine cold chain.

METHODS

Two hundred and fifty-six Hunter general practices participated in this 2003 - 2004 study. Vaccine cold chain knowledge and practices of staff who handled the most recent vaccine consignment at these general practices were assessed by on-site completion of a standardised practices and knowledge questionnaire. A site audit of all vaccine refrigerators was conducted concurrently. A questionnaire was designed which aimed to investigate general practice staff members' mechanisms for ensuring the integrity of the vaccine cold chain. The structure of the questionnaire reflected established World Health Organization (World Health Organization Dept Vaccines and Biologicals 2005) and National Health and Medical Research Council guidelines (National Health and Medical Research Council 2003). Questions addressed : prior immunisation education, ability to read temperature monitors included with consignments, knowledge of correct procedures if vaccines were compromised, and the awareness by non-clinical staff of vaccine cold chain principles. The questionnaire also assessed the processes used in participants' workplaces, including whether a designated person was responsible for vaccine storage, fridge monitoring and fridge maintenance, whether the site had a process for receiving vaccines to ensure they were refrigerated within 10 minutes of arrival, and whether vaccine condition was noted on arrival. Data was also collected about whether a practice nurse was employed and whether the practice nurse was authorised to immunise without orders from a medical practitioner having undertaken specific NSW immunisation education (NSW Government 2001).

During the site visits, refrigerators used for vaccines were audited using a checklist to reflect established World Health Organization and National Health and Medical Research Council guidelines including whether the type and condition of refrigerator used for vaccine storage met these guidelines, how often temperatures were recorded and the type of thermometer used, whether records reflected that the fridge was functioning within the acceptable temperature range of 2°C and 8°C, placement of vaccine stock within the fridge, evidence of expired vaccines or storage of other items in the vaccine refrigerator, and evidence of correct labelling of the fridge and its power source.

A Tinytag® temperature data logger, a compact battery-powered unit, was used to record internal refrigerator temperatures every fifteen minutes over a period of 72 hours. Tinytag Explorer® data logging software was use to configure and calibrate the logger, and display and graph monitoring results (Tiny Tag 2004).

Data was analysed using Stata 8.0 statistical software (StataCorp 1984-2005). Comparison of proportions was conducted using Chi-square testing with a two-tailed significance level set at p=0.05. Fishers exact test was used where one or more cells had an expected frequency of <5. Differences between urban and rural areas were explored.

Ethical approval was sought from the Hunter Area Health Service Ethics Committee, which categorised the study as a quality assurance exercise.

FINDINGS

Data from the questionnaires and audits found a strong relationship between the employment of a practice nurse and acceptable vaccine cold chain practices (table 1).

Table 1: Service provider and acceptable VCC practices (n=256)

		Acceptable VCC Practices	
		Yes	**No**
PN employed	Yes	155 (95%)	9 (5%)
	No	39 (42%)	53 (58%)
Total		194 (76%)	62 (24%)
x^2 = 87; df = 1, p <0.0001		OR: 23 (95% CI: 10, 58)	
PN and ANI	Yes	121 (98%)	2 (2%)
	No	34 (83%)	7 (17%)
Total		155 (95%)	9 (5%)
x^2 = 14; df = 1, p <0.0005		OR: 12 (95% CI: 2, 126)	

VCC = Vaccine Cold Chain; PN = Practice Nurse; ANI = Authorised Nurse Immuniser

In general practices where the practice nurse was an authorised nurse immuniser with a specific authority under the NSW Poisons and Therapeutic Goods Act 1996, Amendment 2001), acceptable vaccine cold chain management practices were significantly more likely (98%) than in general practices where the practice nurse was not authorised to immunise (83%).

Forty-nine refrigerators (19%) did not maintain recommended internal temperatures (table 2). Bar-type refrigerators (44/106, 42%) more commonly failed to maintain acceptable internal refrigerator temperatures compared to non-bar type fridges (5/145, 3%), (p<0001), and bar-type were the only refrigerator type where temperatures fluctuated between too high and too low (table 3).

Table 2: Type of refrigerator in General Practice and maintenance of acceptable internal temperature

		Acceptable temperature maintained	
		Yes	**No**
Type of fridge		145 (97%)	5 (3%)
	Bar-type	62 (58%)	44 (42%)
Total		207 (81%)	49 (19%)
x^2 = 58; df = 1, p <0.0001		OR: 21 (95% CI: 8 - 69)	

Table 3: Refrigerator type and temperature compliance by 72 hour logging

	Type of Refrigerator			
Internal Fridge Temperature	**Purpose-built**	**Domestic**	**Bar-type**	**Total**
Temperature too low, > 2°C	0	3	29	32
Temperature too high > 8°C	1	1	6	8
Temperature > 2°C and > 8°C	0	0	9	9
Temperature maintained between 2°C and 8°C	7	138	62	207

No significant differences were found between urban and rural areas for any of the research outcome measures. There was still scope for improving vaccine cold chain management practices, as 24% of general practices service providers did not meet all vaccine cold chain management practices.

DISCUSSION AND CONCLUSIONS

The result of this study (76% of practices complied with approved vaccine cold chain management practices) compares favourably to that found in previous studies in other areas in Australia (Liddle and Harris 1995; Lewis et al 2001) where vaccine cold chain management practices were assessed in general practice; including maintenance of fridge temperatures between 2°C and 8°C, having a designated person responsible for the vaccine cold chain, recording of temperatures at least daily and inappropriate items stored in the vaccine fridge.

In Australia, the general practice setting is a major provider of primary health care and therefore an appropriate place for preventing rather than merely treating disease (Davidson et al 2007). Immunisation can be safely and effectively administered by appropriately trained general practice nurses. This study found that general practice nurses appeared to play an integral role in ensuring optimal vaccine cold chain practices, particularly where they were authorised to immunise and received annual, immunisation-specific education including that related to vaccine cold chain management . The study's findings highlighted the value of employing general practice nurses, and of investing in their immunisation-specific education.

This study found that 97% of non-bar type refrigerators in Hunter general practices operated within the temperature range that is safe for the storage of vaccines. Most Hunter modified domestic refrigerators maintained temperatures as well as purpose-built refrigerators, providing evidence that smaller domestic refrigerators could be acceptable for vaccine storage for smaller sized surgeries. The Hunter study found bar-type refrigerators were most likely to fail to maintain acceptable temperatures for vaccine storage, fluctuation of temperatures occurred below and above the recommended range. Both the World Health Organization and the National Health and Medical Research Council specifically advise against the use of bar-type refrigerators which may place vaccines at risk of temperature fluctuations, and the findings of this study support that stand.

Limitations of the study included the use of recall and subjective responses to knowledge questions such as whether the staff member could read the heat / freeze monitors and knew the correct procedures following a vaccine cold chain breach.

RECOMMENDATIONS

General practice nursing provides an integral and growing contribution to primary health care in many general practice surgeries throughout Australia, bringing to general practice the recognised nursing strengths of enhanced care and improved care quality (Phillips et al 2009; Annells 2007; Price 2007). Divisions of General Practice and nurse advocates should strongly encourage general practices to employ at least one general practice nurse to oversee immunisation services, including the management of the vaccine cold chain. Further research could identify other immunisation-related issues where the employment of a general practice nurse who is suitably trained to administer vaccines alone, and who attends on-going immunisation education, could enhance practice improvements, such as timeliness of vaccination, appropriate catch-up regimes for all age groups (children, adolescents and adults), routine assessment of all clients, opportunistic vaccination of clients not age-appropriately immunised, and administration of all due vaccines at a single visit.

World Health Organization's and National Health and Medical Research Council's specific recommendations against the use of bar-type refrigerators should be supported by NSW Health, Divisions of General Practice and health advocates with strong policy statements that bar-type refrigerators should be outlawed for vaccine storage in all health settings.

Further quality assurance studies may be worthwhile to assess any improvements in vaccine cold chain management by vaccine service providers since the introduction of national vaccine storage standards in 2005 (Commonwealth Government Dept of Health and Ageing 2005).

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Enhancing the roles of practice nurses: outcomes of cervical screening education and training in NSW

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KEY WORDS

practice nursing, cervical screening, education and training

ABSTRACT

Background

There is a dearth of information about the roles practice nurses (PN) undertake in Australian general practice and what impact these roles have on patient health outcomes following specific education and training programs. Accurate data is vital to evaluate the usefulness and cost effectiveness of item numbers for PN and funding for PN education, in addition to providing some direction for the future education and support of PN.

Methods

An anonymous postal survey was sent to all PN who had completed the Family Planning NSW *Well Women's Screening Course* (WWSC) between 2003 and 2007.

Results

Over three quarters of respondents reported their clinical role had expanded, that there was need for ongoing education on all aspects of women's health, and for some PN there are barriers to role expansion.

Discussion

Role expansion has occurred for PN following education and training that contributes to patient outcomes. Existing methods for collecting specific activity of PN are incomplete. Barriers exist in the utilisation of PN which could be overcome with education of both general practitioners and the community regarding the role of PN and the valuable contributions they can make to general practice.

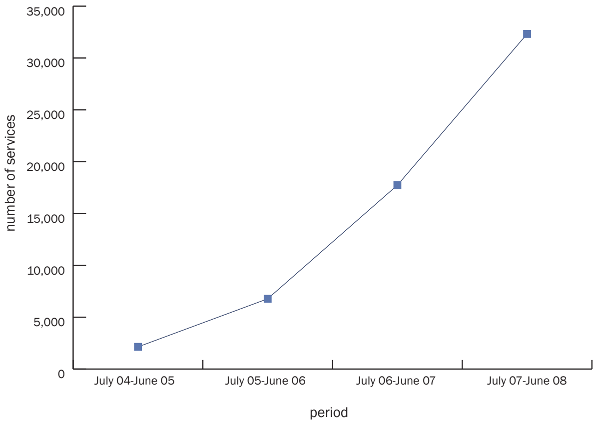
INTRODUCTION

The importance of the role of the practice nurse (PN) is well recognised by government (Jolly 2007; Hall 2007). Since 2001, the Australian Commonwealth government through the Department of Health and Ageing has allocated funding to develop and enhance the role of the PN, through the Nursing in General Practice Program (NiGP). In 2001-2002 $104.3 million was allocated over four years for nurses working in general practice, and a further $15.6 million was allocated for the training and support of PN for 2005-2009 (AGPN 2008). Additionally, between 2002 and 2008 in NSW, the Cancer Institute NSW Cervical Screening Program has funded course positions for PN to complete the Well Women's Screening Course (WWSC), conducted by Family Planning NSW (FPNW).

Although PN are employed in nearly 60% of general practices, there has been little examination of the effectiveness and impact of their role in general practice (Keleher et al 2007). This lack of evidence is particularly apparent in relation to the role expansion of PN to include cervical screening. The allocation of Medicare item numbers for cervical screening for PN occurred without a national system in place for accurate data collection which means that the impact of this role extension cannot be examined. In addition, considerable investment has been made for the education and training of PN to conduct cervical screening but as yet there has been no evaluation conducted by funding bodies on the effectiveness of PN conducting cervical screening. Data in relation to the impact and outcomes from MBS practice nurse item numbers is vital to evaluate their usefulness and cost effectiveness in addition to providing some direction for the future education and support of PN.

PN have been identified as having the potential to improve cervical screening rates in the primary care setting (McGoldrick et al 2007), and considerable investment has been made in education and training, yet the outcomes of this education and training are not known. Unfortunately, there is no national systematic data collection on nurse-provided Papanicolaou (Pap) tests, and it is only in Victoria this data is available routinely through the Victorian Cytology Service. Medicare data for NSW indicates that participation of PN in cervical screening and women's health checks has increased significantly in recent years (figure 1). However, not all activity data is collected, and the contributions that PN make cannot be measured without it (Keleher et al 2007; Halcomb 2006).

Figure 1: Number of Pap tests performed in NSW by general practice nurses (MBS 10994, 10995, 10998, 10999)



Source: Medicare Australia.

Mills and Fitzgerald (2008 pp. 20) have noted the genderisation of medicine has led to women's health being the primary domain of female doctors and it may be a potential source of conflict within a practice when the expansion of the role of the PN comes to include women's health. At the time of the endorsement of any education and training program by an employing General Practitioner (GP), the potential conflict and change management process needs to be considered.

It has been acknowledged that population based screening programs have contributed to the reduction in cervical cancer mortality and morbidity in Australia (Taylor et al 2006) and PN have been one of the providers delivering population based screening for more than five years, thus contributing to it's success. They may also contribute to the success of population based screening by virtue of their gender as cervical screening rates ar 'encouraging' in areas with female GPs, implying the gender of the provider is one influential factor for women to undertake screening (Duncombe et al 2007).

The *Well Women's Screening Course* is an education and training course developed and provided by FPNW for registered nurses (including PN) and midwives who intend to provide cervical screening and breast awareness education and clinical breast examination to women.

STUDY AIMS

To conduct long term follow up of PN who had participated in specific education and training WWSC which assessed the impact on their roles as PN, their utilisation of skills learned during the course, barriers to utilising these skills, and areas where further training was needed.

METHOD

Data

An anonymous postal survey was sent in March 2008 to all 292 participants who had completed the WWSC from 2003 to 2007(n=292). A reply-paid envelope was supplied for respondents to return the survey. A combination of closed and open ended questions was used; results reported here are for closed ended responses unless otherwise specified. Course participants were asked to report their experiences as a PN since completing the course, including demographic details, characteristics of the practice where they are employed, and their current Pap testing activity. Course participants consented to long term follow up on the completion of the course. The survey was developed by one of the authors and initially piloted in early 2008.

Analysis

Statistical analysis of quantitative data was conducted using SPSS Version 16. Data were analysed using χ^2 tests and evaluated against a significance level of 0.05. Open-ended responses were collated and categorised thematically post hoc using a grounded theory approach (Glaser 1998).

RESULTS

149 survey responses were received, giving a response rate of 51%. Results here refer to the 131 respondents who reported currently working as PN.

Characteristics of PN and practices where they are employed

Of those currently working as PN, 82% were aged between 40 and 59 years. 65% completed the course in 2005 and 2006, and 85% were performing at least 1 Pap test per week at the time of the survey. Respondents were employed in a wide range of locations. Of the respondents who gave their postcode (n=110, 89%), 18% were employed in major cities, 54% in inner regional areas, 26% in outer regional areas and 2% in remote areas, as classified using the Accessibility/Remoteness Index (ARIA+). On average, respondents performed 5.7 Pap tests per week, range from 0 to 20 (table 1).

Table 1: Numbers of Pap smears performed per week by WWSC participants (N = 131).

Numbers of Pap smears	N	%
0	17	13.0
1-5	58	44.3
6-10	31	23.7
11-15	9	6.9
16+	7	5.3
Not Specified	9	6.9

Of the respondents who indicated their GPs gender (n=116, 84%), 53 respondents (46%) were employed in exclusively male general practices, 59 (51%) in practices with both male and female GPs, and 4 (3%) with female GPs only. 77% of respondents indicated they used Medicare item numbers specifically for PN when performing Pap tests. Most of the Medicare claims were for a Pap test and preventive check. We asked PN 'Does your GP claim a Medicare item for the Pap tests that you do?', and 50% indicated 'Yes'.

The PN changed role in the practice

One hundred respondents (76%) indicated their role had expanded since completing the WWSC. Respondents were asked to describe how their role had changed (open-ended response, more than one response allowed). Of these, 28 (28%) reported their role had expanded in more than one way. Respondents most commonly reported performing more clinical procedures, and providing more information and education about women's health (table 2).

Table 2: Types of role expansion after completion of WWSC (N = 100)

Type of role expansion	N	%
Performing a greater number or range of clinical services	74	74
The nurse has become a source of information, education and advice on women's health	33	33
Running a Well Women's Clinic	10	10
More women are attending the practice for screening now that a female nurse is available	7	7
Coordinating Pap smear reminder/recall	4	4

Barriers to role expansion

Respondents who reported their role had not expanded were asked to identify reasons why this was the case (open-ended response, more than one response allowed). The most common reason (43%) was that GPs prefer to perform Pap testing themselves (table 3).

Table 3: Reasons for PN role not expanding after completion of WWSC (N = 28)

Reason role has not expanded	N	%
GPs prefer to perform Pap smears themselves/reluctant to give PN this responsibility	12	43
Female doctor can perform testing	6	21
Lack of resources/space/time to set up a clinic	3	11
GP fear of litigation	2	7
Patient preference for GP	3	11
Not seen as financially viable for nurses to do Pap testing	1	4
Other	3	11
Not specified	7	25

The gender of the GPs working in the practice also impacted on the role of the PN. Compared to PN working in practices that had one or more female GP, PN working in all-male practices were significantly more likely to perform one or more Pap test per week, (χ^2 = 15.03, 1df, $p<0.001$), and significantly more likely to report that their clinic role had expanded since completing the WWSC (χ^2=7.52, 1df, p=0.006). Practices with one or more female GP were also significantly less likely to have a Well Women's Clinic (χ^2 = 5.14, 1df , p=0.02).

Areas for further education

90 respondents (69%) reported they needed further education in some areas of clinical practice since completing the WWSC. Seventy eight of these respondents (80%) described areas where further education was needed (open-ended response, more than one response allowed), and of these 27 (35%) indicated two or more areas (table 4). The most common areas where respondents lacked confidence and would like further training included contraception, STIs, menopause, and detecting and responding to abnormalities. Sixteen participants had enrolled in the FPNW Certificate in Sexual and Reproductive Health after completing the WWSC.

Table 4: Areas where WWSC participants would like further education (N=78)

Areas for further education	N	%
Ongoing education and updates on all issues	20	26
Contraception	17	22
STIs	17	22
Menopause	14	18
Abnormalities – detecting and responding	14	18
Cervical sampling techniques	7	9
Bimanual examinations	6	8
More practical experience	6	8
Breast awareness/examinations	4	5
Women's general sexual health	2	3
Other	6	8

DISCUSSION

Over three quarters of course participants reported their clinical role had expanded although there are barriers that exist that inhibit the expansion of the role of practice nurses. PN expressed the need for ongoing education in all aspects of women's health.

A limitation of the present study was the sample size was small, and thus unlikely to represent the PN workforce in NSW who have undertaken this particular education and training program. A further limitation was that by not surveying the GPs employing PN who are conducting cervical screening, only one view is being heard, in particular when surveying the barriers to role expansion. However, the results do highlight some issues that warrant further research.

The WWSC targets PN working in rural, regional and metropolitan locations, and the results indicated that a high proportion of PN from outside the major cities of NSW participated in the survey. This is not surprising as PN from metropolitan areas (or ARIAs 1 and 2) did not have access to MBS item numbers 10994 and 10995 until November 2006, and consequently fewer numbers of those nurses had completed the WWSC prior to that time.

It was encouraging that 76% of respondents indicated their role had expanded after completion of the WWSC, with PN reporting performing more Pap tests and women's health checks, and providing more information and education to patients since completing the WWSC. The results indicated that in some areas with no female GP, there was an in increase in the number of women screened, and suggested that training female PN can increase access to cervical screening for some women, particularly for those attending male-only GP practices. The small numbers limit the reliability of this finding, although this is consistent with the finding that cervical screening rates are 'encouraging' in areas with female GPs, implying the gender of the provider is one influential factor for women to undertake screening (Duncombe et al 2007).

It was encouraging also to find that most respondents were still employed as PN, and most were performing one or more Pap tests each week, and 85% were performing one or more Pap tests each week. It was notable that 65 respondents indicated that GPs are claiming Medicare item numbers other than those specific to PN, which indicates there are PN who do not claim for the Pap tests they perform both for and on behalf of their GP. Clearly, education is required regarding the utilisation of item numbers by PN. Further research is also required to investigate the extent of this practice and the contexts in which it is occurring, but it is clear that systems need to be developed to accurately record and report those procedures performed by PN, since the present study indicates that Medicare records are likely to underestimate the proportion of Pap tests performed by PN.

Respondents indicated they would like to receive updates and ongoing education in particular areas. The provision of education and training on STIs, contraception and other aspects of women's health has the potential to increase PN activity further, to reduce workload of GPs and to improve service access for women.

This study has also identified some barriers that prevent PN from expanding their role in the practice and the utilisation of their skills. The most commonly reported barrier to role expansion was that the GP preferred to perform screening themselves. This may be a cause of conflict and confusion for those PN, as their employing GPs would have provided their endorsement for the PN to undertake the education and training. Other identified barriers were that patients preferred to be screened by the GP or that there was a female GP available who performed screening. This is possibly a barrier because historically cervical screening has been seen as the province of female GPs (Mills and Fitzgerald, 2008), and the expanded role of the PN may be seen as threatening by some female GPs. Some negotiation of roles may be required and education of patients on the expanded role of the PN. The results reported here may also reflect possible ambivalence about the role of the PN on the part of GPs, suggesting there is a need for further education of GPs and patients about this role.

RECOMMENDATIONS

The collection of data regarding the role of PN needs to continue, as currently there is limited information about the impact and the outcomes of education and training of PN within a general practice setting. Advocacy is needed for improved reporting of PN activity. One possibility for better recording of PN activity is the allocation of unique identifying codes by pathology providers to nurses providing Pap testing so that accurate and objective data collection on Pap testing can be used for outcome measurement. Legislative change may be needed for the allocation of unique identifiers to all Pap test providers, including PN.

Education is an important strategy to further enhance the role expansion of PN and to provide the highest quality data possible. To ensure that Medicare data accurately reflects the number of Pap tests performed by the PN, all staff in general practice need to undergo training in the appropriate use of Medicare item numbers. Educational programs that meet the specific needs of the PN workforce need to be designed, delivered and evaluated. GP training highlighting the benefits of updates, and their obligation as an employer to provide professional education and training to employees, will assist this process. Further education of GPs and patients about the role of PN, and the valuable contributions they can make to general practice needs to be conducted.

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Factors affecting sexual satisfaction in Korean women who have undergone a hysterectomy

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KEY WORDS

hysterectomy, sexual satisfaction, spousal support, body image

ABSTRACT

Objective
This study was undertaken to examine the factors affecting sexual satisfaction in women who had undergone a hysterectomy.

Design
The descriptive correlational study was conducted. The model contained three stages including antecedents (stage 1), interpersonal influence (stage 2), and outcome perception (stage 3). The antecedents included perception variables (eg negative body image and depression) and individual characteristics (eg age, education, employment and physical state before and after the hysterectomy). Stage 2 focused on social support. In stage 3, the outcome perception variable was sexual satisfaction.

Setting
The setting was a gynaecology outpatient clinic in a suburban general hospital in Korea.

Subjects
A total of 118 women who have had a hysterectomy participated.

Main outcome measures
The instruments used for this study were the Body Image Scale, the Self-Rating Depression Scale, the Spousal Support Scale, and the Korean version of the Sexual Satisfaction Subscale.

Results
Results show spousal support (β=-.419, p=.00) and negative body image (β=-.301, p=.02) explained 30% of the variance in sexual satisfaction. Spousal support, as a mediating variable, was the highest factor predicting sexual satisfaction of women who have had a hysterectomy.

Conclusions
Findings suggest the causal relationships of sexual satisfaction can guide researchers and gynaecology nurses to understand the relative strength of predictors for sexual satisfaction. Nurse practitioners should play a leading role in assisting women who undergo hysterectomy to ensure they have emotional support from their spouse, as this can dramatically impact their sexual satisfaction.

INTRODUCTION

As in other advanced countries, hysterectomy is the most common major surgical procedure performed in Korea. The problems associated with a hysterectomy are now recognised as important health problems for women and a major issue for sexual activity with their spouse. Studies on the relationship between hysterectomy and sexual functioning have produced contradictory conclusions. Some studies report hysterectomy has a positive effect on sexual functioning (Vomvolaki et al 2006; Goetsch 2005; Rhodes et al 1999), whereas in other studies hysterectomy was found to have a detrimental effect on sexual functioning (Flory et al 2005; Jeng et al 2005). The sexual function of women who undergo hysterectomy ultimately has an influence on the quality of their lives (Hartmann et al 2004). Sexual satisfaction is regarded as part of a good quality of life (Gelfand 2000).

In an effort to increase sexual satisfaction, many studies have hypothesised and tested various etiological factors of sexual satisfaction: interpersonal, personal, physical and psychological factors. It is expected to reveal associations and the impact of various factors on the sexual satisfaction of women who have undergone hysterectomy which could be used for developing better guidelines for more successful interventions in women following a hysterectomy.

Across cultures, many studies (Wróbel 2008; Dennerstein et al 2003; Bancroft et al 2003; Moon 2002) reported emotional relationships with their spouse impacted on sexual satisfaction. In other words, spousal support was strongly associated with sexual satisfaction of women who have had a hysterectomy. Hence emotional support from their spouse was an essential predicting factor for positive perception of sexual activity. In addition to interpersonal factor, recent investigations have repeatedly shown that demographic characteristics of the women who had undergone a hysterectomy profoundly influenced sexual satisfaction (Parish et al 2007; Aslan et al 2008; Hayes et al 2008; Fajewonyomi et al 2007; Chang 1989).

Several studies (Haney and Wild 2007; Rhodes et al 1999) suggest the removal of ovaries during a hysterectomy negatively affects sexual and psychological well-being. Some studies (Wang et al 2006; West et al 2004; Malacara et al 2002) show women who were still menstruating before their hysterectomy experienced less sexual well-being than those in menopause. Some studies (West 2004; Nobre and Pinto-Gouveia 2008) also suggested a high correlation between psychological factors and sexual satisfaction of women following a hysterectomy. Women have many different beliefs about the importance of the uterus; their beliefs have an impact on perceptions or feelings about having a hysterectomy. These emotional reactions to hysterectomy, such as body image or depression, have an influence on sexual well-being (West 2004; Nappi et al 2002). Some women believe if they no longer have a uterus, they will not be attractive, resulting in negative body image. Many studies (Wang 2006; West 2004; Malacara et al 2002) have shown that women with a negative body image after a hysterectomy report less sexual satisfaction.

A critical limitation of previous studies is that sexual satisfaction was considered as a uni-dimensional concept resulting from simple predictive factors; rather than as complex multi-dimensional indicator for sexual satisfaction of women following a hysterectomy. Future studies addressing the multi-faceted nature of sexual satisfaction would allow for a much richer understanding of sexual satisfaction, comprehensive assessment as well as better-targeted interventions.

There is little research on the grounded theory explanation for causal relationship affecting sexual satisfaction experienced by women undergoing a hysterectomy. As an initiation of such trials in Korea, the present study was designed to test a staged theoretical model designed to explain relationships between individual factors, physical and psychological factors, and interpersonal factors affecting sexual satisfaction in Korean women following a hysterectomy.

PURPOSE

The purpose of this study was to test a theoretical staged causal model of sexual satisfaction in Korean women who have undergone a hysterectomy.

CONCEPTUAL FRAMEWORK

The model used to test the theoretical assertion relationships among specific determinants of sexual satisfaction of women who have undergone a hysterectomy were examined. There are two assumptions in this model. One is that contextual antecedents are sufficient to explain the causal factors affecting the sexual satisfaction. The other assumption is that spousal support is a mediating factor in sexual satisfaction for these women. The proposed hypotheses were developed based on findings from previous empirical research (Aslan et al 2008; Fajewonyomi 2007; Chang 1989).

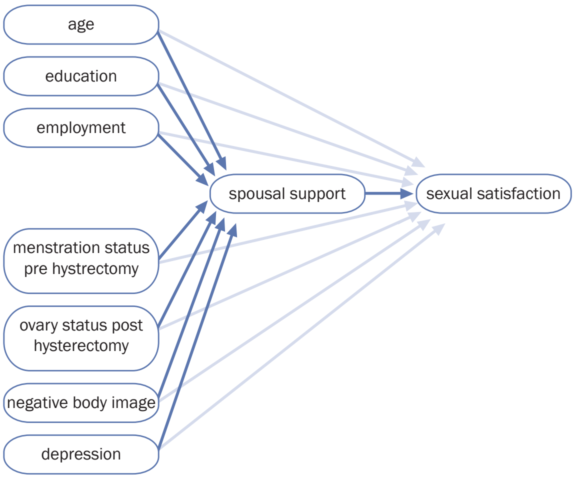
The model in figure 1 contains three stages comprised of antecedents (stage 1), interpersonal influence (stage 20) and outcome perception (stage 3). Stage 1 contains individual characteristic variables, physical and psychological factors. Individual characteristics include the woman's age (WA), education (WE), and employment (WJ). Physical variables include menstrual status before hysterectomy (MS) and ovary status after hysterectomy (OS). Psychological factors include negative body image (NBI) and depression (DEP).

In stage 2, the interpersonal variable was spousal support (SS). Spousal support is viewed as an interpersonal influence, a cognition focused on behaviours, beliefs, and attitudes of the spouse (Chang 1990; Chang 1989). Spousal support is defined as a subjective feeling of belonging, being loved, esteemed, valued, and needed, and that both spouses have an absolute obligation to support each other during the marriage (Patel et al 2008). In the theoretical staged model, a direct positive relationship was anticipated between spousal support and sexual satisfaction of women who have had a hysterectomy (Zobbe et al 2004; Chang 1989), with higher spousal support being associated with higher sexual satisfaction. Spousal support is predicted by the individual characteristics and by the psychological variables such as negative body image (Barelds-Dijkstra and Barelds 2008) and depression (Lee 2003). Hence, psychological factors had an indirect impact on the sexual satisfaction of these women through spousal support (Dove and Wiederman 2000).

In stage 3, the outcome variable was sexual satisfaction. Sexual satisfaction refers to a subjective perception that is congruent with subjective anticipation in sexual activity with their spouse (Chang and Jeong 1995). Sexual satisfaction has emerged as an important concept for determining the impact of community-based care on women following a hysterectomy (Gorlero et al 2008; Jongpipan and Charoenkwan 2007). The proposed hypothesis is that sexual satisfaction is predicted by spousal support, and by psychological factors and by the personal factors of each woman.

Spousal support was chosen as a mediating variable to test the implicit assumption that spousal support is associated with sexual satisfaction and that psychological factors and personal factors have a positive impact on sexual satisfaction through spousal support.

Figure 1: a staged theoretical model



Research Question

What is the magnitude and direction of the relationships between the dependent variable (sexual satisfaction), one endogenous variable (spousal support) and seven exogenous variables (WA, WE, WJ, MS, OS, NBI, DEP)?

METHOD

Design and Sample

A cross-sectional descriptive research design was used to test a staged theoretical model intended to explain factors influencing sexual satisfaction. Data were collected with a non-probability sampling strategy using structured format face-to-face interviews. A convenience sample of 118 community dwelling married women was recruited from a gynaecology outpatient clinic in a suburban Korean hospital. The sampling criteria were: 1) had a total hysterectomy with or without oophorectomy in the preceding 3-12 months, 2) been medically diagnosed with uterine myoma, adenomyosis, endometriosis, or no uterine cancer, and 3) having no complications and no hormone therapy after the hysterectomy. The study protocol was approved by the Institutional Review Board of Inje University Paik Hospital, Korea. All participants were informed of the purpose and procedures of the study and verbal approval was obtained from each woman. Participants were assured their responses would remain anonymous and confidential and they could refuse to participate in the study at any time.

Description of sample

As shown in table 1, the women ranged from 30 to 63 years of age, with a mean of 42.3 years (SD =10.4). Seventy-three percent of the women had graduated high school or higher (n=86, 72.8%). Approximately one third of the women (n=41, 34.7%) had an occupation. One third of the women (n=81, 68.6%) were still menstruating at the time of their hysterectomy and sixty-two percent of the women (n=73, 61.9%) did not have their ovaries removed.

Table 1: Demographic characteristics of the subjects (N=118)

Characteristics	Classification	Frequency(%)	Mean
Age (years)	<34	23(19.5)	42.3
	35-44	50(42.4)	
	45-54	33(28.0)	
	>55	12(10.1)	
Education	Elementary school graduate	14(11.9)	
	Middle school graduate	18(15.3)	
	High school graduate	63(53.4)	
	Over college graduate	23(19.4)	
Employment	Yes	41(34.7)	
	No	77(65.3)	
Menstruation status pre hysterectomy	Yes	81(68.6)	
	No	37(31.4)	
Ovary status post hysterectomy	Yes	73(61.9)	
	No	45(38.1)	

INSTRUMENTS

Body Image

The Korean Version of the Body Image Scale (K-BIS; Jeong 1988) was designed to measure body image in women who had undergone a hysterectomy. K-BIS was composed of 17 items. Example items from the K-BIS are: ‘My body is perfect,’ and ‘My body is precious.’ Each item is rated on a 5-point Likert type scale ranging from one (strongly agree) to five (strongly disagree). The possible range of scores is 17 to 85, with a higher score indicating poor body image. Evidence of homogeneity for the K-BIS includes a Cronbach alpha of 0.80 in the study by Jeong (1988). In this study, Cronbach’s alpha value was 0.80.

Depression

To assess the degree of depression, the Korean version of the Self-Rating Depression Scale (K-SDS) (Song 1977) originally developed by Zung (1965) was used. This instrument consists of a 20-item self-report questionnaire, covering affective, psychological and somatic symptoms associated with depression. Each item is scored on a 4-point Likert scale ranging from one (strongly disagree) to four (strongly agree). A total score is derived by summing the individual item scores, and ranges from 20 to 80. A total score of 70 or above indicates severe depression. A coefficient alpha of 0.81 was found in this study.

Spousal Support

The Spousal Support Scale (SSS; Chang 1989) consists of a 13-item, five-point Likert-type scale (one strongly disagree to five strongly agree) designed to measure spousal support behaviour for women with hysterectomies. The scores range from 13 to 65 and high total scores indicate a higher level of support from spouse. In the study by Chang (1989) the internal consistency coefficient of alpha was 0.85. In this study, the Cronbach's alpha value was 0.77.

Sexual Satisfaction

The translated Korean version of the Sexual Satisfaction Subscale (K-SSS; Chang 1989) was used to measure sexual satisfaction. The Sexual Satisfaction subscale from the DeRogatis Sexual Functioning Inventory (Derogatis and Melisaratos 1979) was translated and validity testing was done (Chang 1989). K-SSS consists of 10 items with a 5-point Likert type scale (one strongly disagree to five strongly agree). Total scores range from 10 to 50, and a higher score indicates a greater sexual satisfaction. In the study by Chang (1989), the Cronbach's alpha value was 0.78. In this study, internal consistency for the scale was 0.81

Procedure

Approval was obtained from the director of nursing in the general hospital, lists of eligible women were provided by referring doctors and nurses. With permission from the physicians, data collectors approached women in the waiting rooms of the gynaecology clinic to explain the study and asked potential participants for permission to describe the study to them. After informed consent was obtained from the woman, trained data collectors interviewed the participants. Data collectors requested the woman complete the questionnaire themselves, under the supervision of a data collector. The women completed the questionnaire in a private room to minimise distraction and enhance privacy and dignity.

Data Analysis

The research question was answered using path analysis. Data were managed and analysed utilising the SPSS-WIN program (version 11.0). Using the enter method of regression, model variables were entered into the equation based on stage and their bivariate relationship to the dependent variable. Women's education, employment, menstruation and ovary state were included as dichotomous data in this model. Education was scored as zero (less than high school education) or one (equal and greater than high school education). Occupation, menstruation and ovary status were scored as zero (no) or one (yes). Beta weights statistically significant at the 0.05 level were included in the analysis.

Results

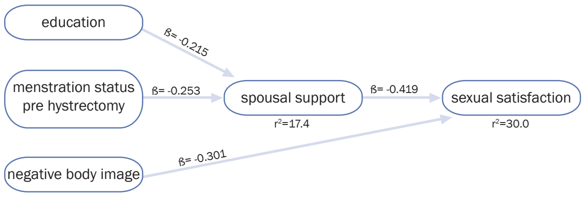
Descriptive statistics for psychological variables, interpersonal variable and outcome variable, calculated as the total item score, are shown in table 2. For the K-BIS, the mean of total scores was 54.57 (SD=-.81). For K-SDS, the mean score was 45.14 (SD=.75), which was considered as an indication of not being depressed. For SSS, the mean of total scores was 36.07 (SD=.80). For K-SSS, the mean score was 28.22 (SD=.67).

Table 2: Descriptive statistics of sexual satisfaction, body Image, depression and spousal support

	Mean	SD	Maximum	Minimum
Sexual satisfaction	28.22	0.67	50	10
Body image	54.57	0.81	74	38
Depression	45.14	0.75	61	24
Spousal support	36.07	0.80	69	21

Figure 2 shows the empirical results in the staged theoretical model on sexual satisfaction of Korean women post hysterectomy. For the dependent variable 'sexual satisfaction (SS)', the following equation was tested: SS=a+SS+WA+WE+WJ+MS+OS+NBI+DEP. In the final model (figure 2), spousal support (β=.419, p=.00) in stage 2 and NBI (β=-.301, p=.02) in stage 1 explained 30% of the variance in sexual satisfaction. These relationships indicate the more spousal support and the more positive body image, the more sexual satisfaction of women post hysterectomy. The other six exogenous variables made no significant contribution to the explained variance.

Figure 2: Empirical results, a staged theoretical model



For the mediating variable 'spousal support,' the following equation was tested: spousal support =a+WA+WE+WJ+MS+OS+NBI+DEP. In the final model (figure 2), WE (β=-.215, p=.04) and MS (β=-.253, p=.03) explained 17.4% of the variance in spousal support. Women who had high education levels and were pre-menopausal prior to undergoing a hysterectomy were found to have less spousal support than those with low education levels and in menopause. Other exogenous variables in stage 1 made no significant contribution to the explained variance. Personal variables (eg education) of the women and physical state (eg in menopause) had indirect effects on sexual satisfaction through spousal support.

DISCUSSION

A theoretical staged model was posited to explain the causal relationships affecting sexual satisfaction in Korean women who have undergone a hysterectomy. Sexual satisfaction was evident in response to the impact of spousal support, and physical and psychological factors. The study was limited as the results cannot be generalised to Korean women, post-hysterectomy as this study was a randomly sampled population-based study. The results of this study, however offer preliminary insights into the nature of sexual satisfaction experienced by Korean women following a hysterectomy.

There are several interesting findings from this study. First, woman's education and menstrual status before hysterectomy had a negative indirect impact on sexual satisfaction through spousal support. This result indicates women who had low education levels had high spousal support, which resulted in sexual satisfaction experienced by the women even post hysterectomy. Women with high levels of education, who had less support from their spouse, had a perception of less satisfactory sexual activity. One possible explanation of this finding is that women with high levels of education may experience low passionate love for their partners, perhaps related to occupational stress. The result is supported by Tomic et al's (2006) study, in which higher education levels was significantly associated with lower levels of sexual satisfaction in midlife women. However there are inconsistencies in the literature on the relationship between high levels of education and sexual satisfaction (Aslan et al 2008; Chang 1989). These findings suggest no matter what the education level of the women, nurses can play an important role in encouraging women to get emotional support from their spouses. This is found to improve the perception of sexual satisfaction even for women who have undergone a hysterectomy. Further studies with a variety of samples to examine the relationship between individual characteristics and various facets of sexual satisfaction would be valuable.

In this study the results show women who were menopausal prior to undergoing a hysterectomy had a higher perception of sexual satisfaction even following the hysterectomy, through higher support from their spouse. Physical change such as menstruation status prior to hysterectomy could be a very important factor on emotional support from their spouse, resulting in subjective satisfaction in sexual activity with their spouse. This finding may mean sexual satisfaction ultimately, is indirectly influenced by physical factors (eg menstruation status prior to hysterectomy), as documented in previous studies (Wang et al 2006; West et al 2004; Malacara et al 2002). Although previously untested and despite the results of only a small percentage of sexual satisfaction being accounted for by the proposed model, these results support the assumption that spousal support mediates the relationships between individual characteristics or physical factor and sexual satisfaction as a positive outcome.

Secondly, antecedent variables, the negative body image and depression in our study did not have an indirect negative influence on sexual satisfaction through spousal support, indicating the psychological variables, both negative body image and depression, were not associated with spousal support. This is inconsistent with findings from some studies across cultures, in which spousal support was influenced by body image and depression affecting women following a hysterectomy (Barelds-Dijkstra and Barelds 2008; Sung et al 2007; Lee 2003). The results of this study however, support the findings of other studies (Knoll et al 2007; Chun and Kim 1996), in which interpersonal factors such as spousal support was not significantly related to body image or depression. Accordingly, studies on the relationship between spousal support and psychological factors of women have contradictory conclusions. On the other hand, the results of this study support the findings of some researchers who determined only positive body image had a positive direct impact on sexual satisfaction (Nobre and Pinto-Gouveia 2008; Gütl et al 2002), indicating positive body image was related to higher sexual satisfaction. These findings imply that regardless of emotional relationship with their spouse, the emotional reactions to hysterectomy may influence only subjectively on sexual satisfaction with their spouse. The other possible culturally based explanation of this finding in terms of the Korean traditional family system is that hysterectomy is associated with low self-esteem, impaired body image, shame and indignity. Kim and Jang's (1998) study reported Korean women post hysterectomy are not willing to share their body image concerns with their spouse and thus do not get emotional support from their spouse because these women may have a fear they would be rejected by their spouse. The findings of this study suggest positive perception of body image in Korean women is directly related to subjective perception of sexual activity with their spouse, without intervening spousal support. Therefore, it is important for gynaecology nurses to support and encourage positive perception of body image for women undergoing a hysterectomy. Further studies may provide useful information to better understand sexual satisfaction of women post-hysterectomy.

Thirdly, comparing the strength of the relationship among the antecedent variables, spousal support and sexual satisfaction, striking differences were apparent. In this study, the positive effect of spousal support on sexual satisfaction was the strongest in this model. As in many of the previous studies where spousal support was associated with high perception of sexual satisfaction (Molton et al 2008; Wang et al 2006; Koh and Kim 2004; Shokrollahi et al 1999; Chang 1990; Chang 1989) this study revealed a high SSS score was correlated with high sexual satisfaction. In addition, it was found the strength of the negative relationship between personal factors and spousal support was similar to the strength of the negative relationship between physical factors and spousal support.

Lastly, of the psychological variables, depression was not in this model. This may indicate depression has little influence on the perception of satisfaction in sexual activity. It may also indicate there might a problem of sampling, in which the sample was positively distributed on the depression variable. Measurement of depression is another issue. The measure of Zung (1965) is an indicator that can be widely used to identify affective psychological and somatic symptoms associated with depression. In future research, specific dimensions of depression in relationship to sexual satisfaction of women post-hysterectomy need to be considered.

IMPLICATIONS AND CONCLUSIONS

The findings in this study have several implications. Firstly, the findings have implications for nursing practice designed to help women following a hysterectomy to increase their satisfaction in sexual activity. In this study, individual characteristics and physical status of the women were causal factors affecting sexual satisfaction through spousal support, which was a mediating variable. These causal relationships of sexual satisfaction can guide researchers and gynaecology nurses to understand the relative strength of predictors for sexual satisfaction. Such knowledge will enable us to understand emotional support with spouse as a mediating factor and to develop more nursing interventions to improve sexual satisfaction. Secondly, these findings have implication for strategies and suggest the need to increase positive emotional reactions to hysterectomy. Positive self-esteem might be a significant component in strategies to improve body image in women so that sexual satisfaction can be improved. Thirdly, these findings have implications for training gynaecology nurses in inpatient, surgical or outpatient settings. Specialised training in the care of women undergoing hysterectomy is a critical factor. The training program should include an understanding about the nature of post hysterectomy and applying care strategies in systematic ways. Nurses should play a leading role in assisting women who undergo a hysterectomy to ensure they have emotional support from spouse as this will dramatically impact on their sexual satisfaction.

In conclusion, replication of the study with a larger sample needs to be considered to further enrich specific knowledge regarding spousal support and sexual satisfaction experienced by women who have undergone a hysterectomy. Whether sexual satisfaction is culturally relevant to other ethnic groups has not been identified as yet. Cross-cultural differences or similarities in the theoretical model to explain the physical status that affect sexual satisfaction through spousal support need to be examined. The findings of this study suggest further refinement of the underlying the model is warranted.

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Investigating people management issues in a third sector health care organisation – an inductive approach

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ABSTRACT

Objective
To explain use of inductive convergent interviewing to generate the perceived critical people management issues, as perceived by staff, as a prelude to longitudinal surveys in a third sector health care organisation.

Design
Convergent interviewing is a qualitative technique that addresses research topics that lack theoretical underpinning and is an inductive, flexible, evolving research approach. The key issues converged after six rounds of interviews as well as a further round to ensure that all of the common people management issues had been generated.

Setting
Studies in employee behaviour in the health care industry exist, but there is little in the way of tested models of predictors of such behaviour in third sector organisations in the Australian health care industry. The context is what differentiates this study covering a range of facilities and positions in hospitals and aged care situations within one third sector health care organisation.

Subjects
The study proposed twenty seven extensive interviews over a range of facilities and positions. Twenty one interviewees participated in the final convergent process.

Conclusions
Critical issues included: workload across occupational groups, internal management support, adequate training, the appropriate skill mix in staff, physical risk in work, satisfaction, as well as other issues. These issues confirm the proposition of sector-ness in health organisations that are multi-dimensional rather than uni-dimensional.

INTRODUCTION

Studies in the Australian nonprofit sector are not as extensive as private or public sector studies. Unlike the United States, Australia's third sector does not derive much of its financial resources from fund-raising or philanthropy, but from government. So studies in this sector are of particular interest in helping build a solid comparative base across the sectors. This is especially the case where 'new public management' (NPM) (Osborne and Gaebler 1992; Steane 2008) or 'public governance' reforms have had a significant effect on managerial structures, systems and processes (Kearney and Hays, 1998) on third sector organisation (TSO) health providers in Australia.

This project investigates employee perceptions of their workplaces in medium and large hospitals in Australian private third sector organisations. The study is focussed on the people management aspects of these third sector health organisations due to the dire critical shortage of trained staff, such as nurses and midwives, as well as other problems of a human resource nature.

Hospitals in Australia operate in all three sectors of the economy. However, a major consequence of NPM has been an increased blurring of the public–private divide together with the emergence of increasingly complex relationships between public, private and TSOs (Brown and Barnett, 2004). These public private partnerships (PPPs) are part of a new architecture of governance and interaction between organisations, and they are increasingly complex (Steane and Carroll 2001). It suggests that public-ness may be multi-dimensional not uni-dimensional (Ferlie et al 2003), and examples of this complexity of 'sector-ness' appear in Australian hospitals. While narratives of purity – as public or private - exist, the nature of hospitals is better understood in terms of hybridity (Brown and Barnett 2004). For example, governments have management and leasing arrangements that vary by degree across the many forms of co-location, such as contracts with private companies to manage and operate public hospitals, and companies that have leased public hospitals and run these as private for-profit facilities (Collyer and White 1997). The overall effect is that Australian hospitals now operate in an environment that has 'blurred' the traditionally binary categories of 'public' and 'private' (Brown and Barnett 2004). Yet while TSOs mimic many aspects of the corporate or public sectors, there remain subtle differences (Steane 2008; 1997) such as managerial behaviour and the systems operative to meet the needs of particular clients in such a way to reinforce core values (Gates and Steane 2009).

People in the Health Industry

There are two key issues pertaining to this study: an ageing workforce among health professionals and the turnover of staff in the workplace. These issues frame the investigative context of this study. The Australian overall national expenditure on health was 9.7% of GDP in 2003-4 (AIHW 2006) compared with 8.7% in 1998-9 and 8.1% in the early 1990s (AIHW 2005b; 2004). In relation to the first issue, the health care industry is presently experiencing critical workforce problems, which include severe workforce shortages together with high levels of employee stress and an ageing workforce. There is a shortage of people entering the nursing profession on a global scale (Erickson and Grove 2007). In Australia, there is the greatest shortage of nurses in over fifty years, requiring an additional 10,000 nurses to meet current demands (Chang 2005; RMIT 2003). Nurses represent almost two-thirds of the health workers in the health services industry (AIHW 2006). The proportion of the medical workforce over 45 years old increased from 41% to 46% from 1996 to 2003 (AIHW 2005a), and stayed at 46% in 2005 - considerably higher than the overall workforce average of 35.5% (AIHW 2006). It is in nursing where the most rapidly ageing proportion of the workforce occurs. Nurses older than 45 years increased from 29% to 46.5% between 1996 and 2003 (AIHW 2005b) and is now up to around 47.4% (AIHW 2006).

To reinforce the urgency of studies in this area, projections indicate that if the latter baby boomer cohort of nurses depart the workforce at the same rate as previous generations, more than half the current nursing workforce will have retired within the next 15 years. This problem is exacerbated by the decline in nursing undergraduate commencements over the 10 years to 2003 (Schofield and Beard 2005) as well as comparatively less starting salaries than other graduating professionals (Drury et al 2009). This paints a problematic future for the profession in the medium to long-term.

The second issue of increased employee turnover is a key contributor to this shortage. Poor retention levels among younger and mature employees can be due to a number of factors, including: salaries, poor career paths, unsupportive working environments, non family-friendly working hours and increased levels of bullying, stress and dissatisfaction (Drury et al 2009; Rocker 2008; Fitzgerald 2007; Bessell et al 2004). Job stress is a particularly serious problem in the health industry with health care professionals having higher absence and sickness rates compared to staff in other industries (Edwards and Burnard 2003). Furthermore, stressful working environments are another reason why health service employees fail to function at an optimal level of effectiveness and have been associated with deteriorating patient care (Salmond and Ropis 2005; Happell et al 2003). This simple review of the issue in the literature suggests an optimal theoretical model, such as the Job Strain Model, which provides proven predictors of well-being (Ganster et al 1993). Such a model would constitute a viable framework to examine the experiences of hospital staff, especially nurses, about staying in the workforce longer and the impact of stress on work. Retention issues remain a key area of concern for the health sector, yet there appears that efforts to address it are minimal or spasmodic (Levtak 2002).

The project team seeks to contribute to this area of research and investigate the health industry in the area of work design that explicitly focuses on managing an ageing workforce (Kanfer and Ackerman 2004). This focus is compounded by the little empirical research on TSOs in Australia compared to other OECD countries. Although TSOs have assumed new prominence in recent years in the provision of education, health and welfare services, there have been only two major studies undertaken on non-profit organisations: the Industry Commission's (1995) Report into Charitable Organisations in Australia and the Inquiry into the Definition of Charities and Related Organisations (Sheppard et al 2001). Prior to these studies, research and systematic knowledge of the scope and scale of TSOs was embryonic, with Lyons (2006) being the significant step in mapping the field. This is in stark contrast to the understanding of TSOs in the US, where this sector is far more prominent and in receipt of much more philanthropic financial assistance. Little Australian research has resulted in a consequent lack of understanding about TSO strategic and operational effectiveness vis-s-vis government or corporate organisations. This study of a TSO in a partnership with government to provide public health provides a unique insight and makes a contribution to a field hitherto not well covered. Thus the study provides an important consideration, given the role TSOs play in the Australian health industry (cf Kelly 2008; Steane 2008).

An inductive methodology was employed to surface the common issues across the organisation that may help to address critical people management issues in a third sector health organisation (TSHO). This study makes a contribution to understanding both work design in the health industry as well as understanding it within a TSO. The focus of the methodology was the question: 'what are the most pressing people management issues in your workplace?'

METHOD

The interviewing technique used in this research was convergent interviewing (Dick 1990). Convergent interviewing is an iterative research technique for interviewing. It has a history of use in the change and organisational development literature, and is useful in clarifying focal points of inquiry as well as identifying gaps in the field (Dick 1990). The content of convergent interviewing is unstructured and the process is semi-structured (Williams and Lewis 2005). The researcher on the team engages with participants from a heterogeneous sample of interviewees, to maximise the possibility of variation (Reige and Nair 2004; Patton 1990). A series of probe questions are used to test for the pattern of agreement (convergence) and disagreement (divergence). The series of interviews terminate when a stable pattern of convergent and divergent issues manifest. The structure in the process is derived from an embedded, ordered route of design and analysis.

Governance of the project entailed a steering committee – comprising management, union and employee representatives – who were tasked to appraise the researchers of internal and contextual issues within the case organisation – a large TSO health organisation, spread over hundreds of kilometres. The panel identified potential subjects for interviewing who were regarded as both most informed and most different to one another. The committee also advised on the operationalising of interviews, given the schedules and workloads. For example, interviewees were more amenable at the beginning or end of nursing shifts or when in the central office for meetings, but always had the option not to be involved. Ethics approval was separately sought and approved, via formal application and critique, from the Human Ethics Committees of both universities and the TSO case organisation. The project proceeded with the support of three separate ethics committees.

Participants in convergent interviewing were asked to share their views on the research topic with the interviewer. All interviews were one-to-one and lasted between 60 and 90 minutes, in order to reach the level of detail and importance necessary for identifying the key issues (Dick 1990).

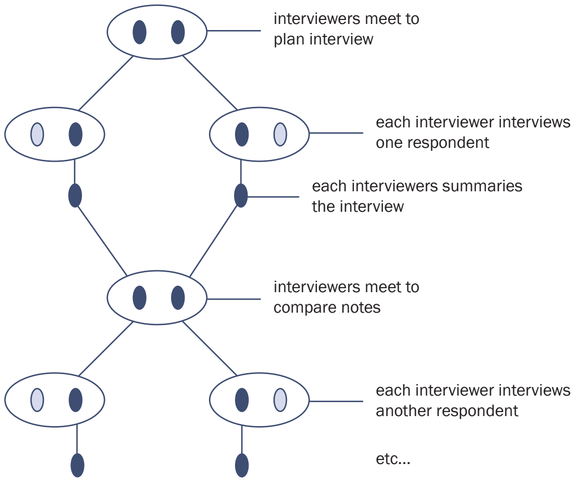
The sample frame of the current study covers all the employees working for a TSO in the health industry, with the majority of employees working at hospital facilities. Of the 27 employees initially asked for interviews, 21 employees participated. A wide range of facilities and positions were represented – including the various hospitals and aged care facilities.

The Interviews

Interviews were conducted in private, and usually in the respondent's general workplace. Each interview began with an explanation of the process and how the data was to be treated, to ensure confidentiality and non-identification of interviewees. An informed consent form was provided and signed by both the researcher and the respondent, with a copy kept by the respondent.

Interview questions adhered to three quality requirements advocated by Lazarfield (1954) of: clarity, focused, and tailored to the experiences of the interviewees. The initial interview question was 'what are the most pressing people management issues in your workplace?' Open-ended questions forestalled researcher bias and allowed respondents to determine the scope and depth of issues. The interviewees were encouraged by the use of active listening techniques. Probing questions were used, such as 'Can you tell me more about that?' or 'Can you give me some examples?' to generate more responsive data. The interviews ended by summarising the key issues raised in the interview, clarifying points of uncertainty or ambiguity to the researcher, thanking the respondent for their time and repeating the confidential nature of the research.

Figure 1. A Summary of the Standard Convergent Interview Process (adapted from Dick 1990).



At the end of each round of three interviews, and in accordance with advised practice on convergent interviewing (Dick 1990), researchers sought to identify generalised or coincidental agreement among interviewees and develop subsequent probes for testing and clarifying accuracy in later interviews. Subsequent rounds of interviews added new issues where convergence could be found and probed for deeper understanding of the key issues already identified. In that way, an expanding list of central issues was generated. When no new common ideas occurred at round six, a check round was conducted to confirm no new key issues were raised (an overview of the process, based on the standard two interviewees per round, is summarised in figure 1).

Building validity is a central concern of qualitative research. Generally, the more valid information is that which is gathered freely, or volunteered (Denzin 1978). This was achieved through the use of semi-structured interviews and judicious probes, without the undue influence of more structured and specific questions of a survey instrument.

Convergent interviewing satisfies the criteria for methodological soundness of greater internal validity and external validity, over reliability and objectivity (Lincoln and Guba 1985), and is widely used in qualitative action research studies. Internal validity and credibility are addressed by the subject matter being accurately identified and described (Marshall and Rossman 1995), and is enhanced by a professional demeanour and rapport a researcher establishes with a participant.

RESULTS AND DISCUSSION

The findings build on and reinforce other research (Drury et al 2009; Rocker 2008; Fitzgerald 2007; Bessell et al 2004) and add a contextual frame hitherto uncovered by studies in TSOs.

Participants were asked to outline the key issues that were affecting the TSHO/their own workplace. The issues that were common are listed below in order from most common to least.

Workload

Workload was the largest issue of concern across all facilities/occupational groups. The majority of participants perceived that there were excessive workloads caused by a lack of funding, limited staff and changes to the nature of their work (i.e. there is more documentation or requirements for employees to complete work that they do not entirely feel competent with). It is possible that this finding is specific to TSOs, where many staff characteristically works an unpaid portion of their time for the benefit of their patients and the organisation, (AMA 1999, Sect. 4, cf Grbich 2002).

Support

The lack of support that 'floor' staff received from upper management was a perceived concern. While employees understood there was adequate support from their direct managers, they identified a significant lack of support between upper management and middle management. A further issue was that there are limited opportunities for inter-team/discipline socialisation.

Training

Participants felt there could be more opportunities for training in non-medical aspects of the organisation. Managers and administration staff in particular perceived they would be able to perform their roles better (eg. give recognition to staff, provide support, use new technologies) if they had training in the relevant skills. Participants noted that administration staff were required to do increasingly complex tasks with inadequate training to help them adjust.

Staffing/Skill Mix

The staffing/skill mix was a major issue in all facilities. Interviewees perceived there was not the right mix of skills within departments (particularly nursing, midwifery and aged care). The main issue is with nurses and the need for more highly-skilled nurses to train and support the graduate or lower grade nurses. Some participants mentioned that due to the limited number of highly qualified staff, employees are increasingly required to do tasks that they do not feel completely competent in and ultimately end up feeling stressed.

Communication

The perception was that there are no real problems with the level of communication employees receive from their direct managers. The issue is mainly around how much information is passed on, and in fact how it is passed on, from upper management to the floor staff. So, the concern is over the form and amount of content. Floor staff and occasionally middle management often perceived that when they receive information about decisions that affect them, it is too late for them to have any input. They felt that they could make positive differences in the organisation if they were given opportunities to influence decision-making.

Recognition

Another common issue raised in the interviews was the level of recognition that staff receive. This was common across all employees whether they were middle management, senior employees or floor staff. Employees perceived a lack of recognition for their effort. Participants noted that verbal recognition can suffice, however they also noted that written recognition or recognition in terms of pay and benefits is needed, especially in the case of unpaid overtime and promotions.

Pay

Participants perceived there were a number of employees who were dissatisfied with the level of pay they received. Many believe they are not paid at a competitive rate. They also believe if they were paid at competitive rates there would less concern with issues about attracting staff who are well qualified and who are willing to work harder.

Resistance to Change/Dealing with Change

There were numerous references to changes within the TSHO and the difficulties that interviewees perceived with these. Participants considered they were uneasy about the changes in locations/management, and there was a great deal of staff who felt insecure with change. Interviewees perceived greater communication would have put them at ease. In particular, some participants perceived that many nurses who have been with the TSHO for up to 20 years were resistant to change.

Physically Dangerous Work

Physically dangerous work is a source of perceived stress for many employees. Interviewees mentioned some employees are concerned about their physical safety when at work. They often felt threatened by patients and they have to deal with people who are difficult to move, which results in a greater physical strain on nurses/doctors.

Values

Values were perceived as important within the various professional and facility groups represented among interviewees. There was reference to what makes working at the TSHO different from other places in many interviews. There was a perception that the values of the TSO are what make it a special place to work (in contrast to public sector or for-profit facilities). This emphasis on the organisation's distinctive values helps to address the current lack of empirical evidence available about the impact of motives and values between the sectors, especially at the employee level and in terms of management approaches (Carroll and Steane 2000).

Satisfaction with Work

Interviewees generally claimed a sense of satisfaction from their work, they perceived they had made a difference at the end of every day, and this is a rewarding experience.

A summary can be gleaned from these eleven common issues. This is achieved with minimal researcher-intervention and provides a juxtaposition of the issues and their apparent proximity to the employee. An example of the summary of these relationships, incorporating the metaphor of Lewin's forcefield analysis is shown in figure 2.

Figure 2: An Example of a Summary of the Issues Raised in terms of their Proximity to the Employee

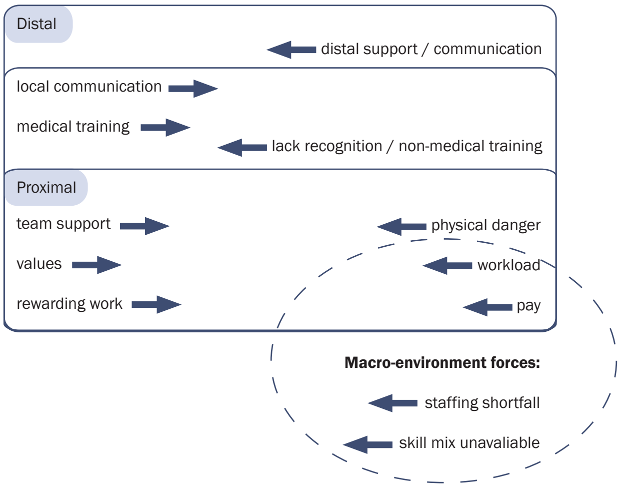


Figure 2 is an aid to illustrate the interrelationships between issues. The issues on the right hand side that have arrows pushing inward (left) tend to be negative issues; the issues on the left pushing inward (right) tend to be positive issues. The issue of the lack of recognition and providing training on non-medical issues are combined as they appear to be two sides of the same coin. Two trends arise from preliminary analysis of the inter-relationships of the issues: (i) the covariate of degree of proximity to the employee and the importance of the issues, and (ii) the view that there were levers available for 'someone' to fix the nursing shortage. The issues that are more proximal to the employee seem to be of greater importance, whereas, working outward through the contained boxes the issues can become more distal and potentially less critical to the employee. The dotted ellipse encapsulates the issues that interviewees felt were the key levers for addressing or causing the nursing shortage.

CONCLUSION

Many of the drivers found in this study have been outlined above (e.g. Bessell et al 2004; Rocker 2008) where – working environments that are unsupportive to staff, foster bullying, entrench inflexible working hours and create unacceptable levels of stress and dissatisfaction, also possess low attraction and retention levels. Notably, except for the macro-issues associated with staff shortages, none of the issues raised above appeared to be specific to the ageing nature of the health workforce (especially nurses) and nor was age raised as a specific issue (e.g. see figure 1).

Although there may be similarities in the characteristics of organisations across sectors, several characteristics stereotypical of a TSO are found in this study (e.g., the importance of the organisation's values, the willingness of employees to self-sacrifice in the face of demanding workloads) which tends to confirm the proposition that sector-ness is multi-dimensional not unidimensional (cf Ferlie et al 2003). Indeed, this TSO may be a prime example of the hybridity of sector in hospitals (as per Brown and Barnett 2004) where NPM-like forces and practices exist and are balanced with the ethos of serving the public. If so, then this is empirical evidence highlighting a key characteristic of not-for-profit industries and goes some way to clarifying the alleged blurring of differences between the sectors, especially at the employee level (Steane 2008; Carroll and Steane 2000).

In conclusion, the project proceeds to investigate the utility of a model that is likely to be powerful in this context, such as the Job Strain Model (Ganster et al 1993). It is a model that is comprehensive enough to incorporate many of the issues raised through convergent interviewing (e.g. Warr 1990). The use of such surveys will allow researchers to determine how widespread these issues are within the health industry and allow the statistical analyses of the inter-relationships between variables.

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Acute care and older people: challenges and ways forward

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KEY WORDS

acute care, hospitals, older people, cognitive impairment, person-centred care

ABSTRACT

Objective
This article aims to (a) suggest ways in which acute hospital environments might be modified to better meet the needs of the older person and (b) question whether options other than acute care should be canvassed for older people.

Setting
Acute hospital settings.

Subjects
Older people and people with cognitive impairment

Primary argument
Older people are large consumers of acute hospital care, and acute hospitals are known to pose significant risks for this vulnerable population. Such risks include delirium, falls, restraints, drug side effects, and general de-conditioning entailing loss of function and independence. Eight dimensions of person-centred care are presented to promote assessing and meeting the needs of older people in acute care. Alternatives to acute hospital admission are also suggested, such as developing 'older people centres' to which older people could be admitted for triage in older-friendly environments staffed by geriatric experts, places in which their multidimensional care needs could be better met.

Conclusions
As an alternative to acute hospital admission, 'older people centres' could be developed to which older people could be admitted for triage in older-friendly environments staffed by experts in care of older people. In the mean time, why not provide a balanced approach that provides some environmental adjustments for older people, core knowledge and skills for all staff, and access to gerontic expertise in the acute hospital care of older people.

INTRODUCTION

This paper draws on contemporary evidence regarding the challenges for older people in acute care hospitals and the concept of person-centred care to (a) suggest ways in which acute hospital environments might be modified to better meet the needs of the older person and (b) question whether options other than acute care should be canvassed for older people.

BACKGROUND

Older people are admitted to acute hospitals more commonly and have longer lengths of stay than younger persons (Nay and Garratt 2004). While people aged over 65 constituted 12.1% of the Australian population, they accounted for 48% of all hospital days in 2001. During the same year, the mean length of stay for a female patient between 40-45 years was 2.8 days, as compared with 10.9 days for a female patient above 85 years (AIHW 2002). Not only are older people larger consumers of health care, there is also ample evidence that older people admitted to general acute hospital care face considerable physical and psychological stressors, and are at an increased risk of adverse events, psychological and behavioural symptoms, general deconditioning, falls, loss of mobility and functional decline (Nay and Garratt 2004; Cassidy 2001). In addition, as many as 33-66% of older people receiving hospital care are estimated to suffer from cognitive impairment (Dewing 2001; Tolson et al 1999) and this poses additional challenges for hospitals as people with dementia have increased needs to experience safety, calmness and familiarity in their environments (Zingmark et al 2002).

The hospitalisation of older people can often exacerbate distress and dysfunctional behaviours (Miller 1999). Stressors that negatively affect older people and persons with cognitive impairment include changes in routine, environment or caregiver, but also facing demands that exceed functional capacity through multiple and competing stimuli, and/or having pain or negative reactions to medications. It has also been shown that older people have an increased risk of post-surgery complications, episodes of acute confusion during hospitalisation, and so called ‘challenging behaviours’, which are manifested through expressions of anxiety, hallucinations and delusions, aggression and agitation, wandering, restlessness, rummaging and other socially deviant behaviors (Miller 1999; Finkel et al 1996). In acute care hospital settings, behavioural changes can emerge from a combined stress of illness and being in an unfamiliar and confusing environment, and are not necessarily symptoms of dementia. These ‘behaviours’ are unfortunately too often managed through the provision of psychotropic medication, the use of physical restraint, and/or the engagement of specially assigned patient attendants (Werner et al 2002). Besides the obvious personal suffering for the person and family afflicted by such behaviours, these are also associated with poor outcomes during hospitalisation, with increased length of stay, mortality, post-hospital institutionalisation, and escalating health care costs (Schofield and Dewing 2002).

In light of knowledge that the overall wellbeing of older people is often adversely affected by experiencing the hospital environment, we argue there is a need to increasingly apply person-centred perspectives in acute hospitals. Person-centred care has emerged as a contemporary gold-standard model receiving much attention within sub-acute and residential aged care for older people (McCormack 2004; Kitwood 1997). Person-centred care was developed as a response to the bio-medical view of disease which was said to downgrade the person to being merely a carrier of disease or a malfunctioning organ (McCormack 2004). Even though the concept person-centred care lacks a clear consensus definition (Edvardsson et al 2008), it is generally described as collecting and using personal information in care, taking a bio-psychosocial perspective and seeing the patient as a person (Edvardsson et al 2008; Slater 2006). Furthermore, offering and respecting patient choices, using the person’s past life and history in care, and focusing on what the person can do rather than the abilities that have been lost due to the disease is central to a person-centred care approach (Brooker 2007; McCormack 2003). However, the concept has been criticised for being a political slogan or evangelical ideal (Packer 2000), often quoted but ill-defined (Nolan et al 2004) and used synonymously with good quality care even though this remains to be supported by evidence (McCormack 2004).

A fictitious but not unusual event of a busy acute hospital ward is described below from three perspectives to illuminate how the same series of events can be interpreted very differently by the nurse, the older patient, and a family member, and is also presented to provoke reflection on how person-centred care can be used to address some of the issues emerging in the event.

Perspective one: Karen, 33 years old, registered nurse at Ward X:

We have been extremely busy; the registrar has been up all night; the phones have not stopped ringing; two nurses have rung in sick; and the ward is crowded. One of the older patients, Emmy, started to wander about, became aggressive, verbally abusive, impossible to shower and was constantly trying to get out of bed all night. We simply had no option but to restrain her to stop her hurting herself. However, she nearly strangled herself in the rails so we sedated her and removed the restraints. When she woke up, she fell over the end of the bed and now has a major bump on her head. The family is furious and said we should have called them earlier but we just didn't have time. Person-centred care… who has time for that?

Perspective two: Emmy, 86 years old, patient in Ward X:

My name is Emmy. I am a holocaust survivor and I have awful pain; I don't recognise anything or anyone in this dreadful place. Everyone is on the run and there are loud noises everywhere. I do know that if you go to the shower you don't come back. I need to pass water but they have tied me down and I can't get to the lavatory. They say the doctor is coming but I've heard they do awful experiments so I must try to escape.

Perspective three: Ronnie, 52 years old, Emmy's son:

My name is Ronnie, I am Emmy's son – I have told them and told them to call me if Mum has a problem – now I get here and find her all bruised and bleeding. She is never angry at home but they rush her and don't listen. She is very dignified and would be mortified to wet the bed but they don't seem to care. Is this what quality care is all about?

DISCUSSION

Applying person-centred care in acute care settings – eight dimensions for discussion.

Adopting person-centred approach to care for older people in acute settings begins with trying to establish a philosophy of care that puts the older person's experiences at centre stage. This can then be merged with gold standard clinical guidelines and best practice approaches to the assessment and maintenance of health among older people in acute hospital settings (Nay and Garratt 2004). The following aspects have been extracted from the literature as making up the cornerstones of person-centred care for older people, and are presented to illustrate how acute hospitals can better meet the needs of older people and family members.

1. ***Establishing a philosophy of care that is person-centred and holistic***
   The establishment and use of a philosophy of care that states the fundamental assumptions, goals and care strategies of the institution has been shown to assist health care staff in making care decisions and communicating to patients, and patients have described how they appreciated explicit care philosophies as they appeared to unite staff towards a shared goal (Edvardsson et al 2005). A holistic person-centred care philosophy means placing the patient with his/her needs and wishes in the centre of care, collecting and respecting patient choices and giving relationships and tasks equal importance (McCormack and McCance 2006). As emerging in the example of the nurse at ward x, the concept of person-centred care needs to be operationalised and integrated

into daily practice so that it does not feel like another burden adding to staff stress.

2. Developing care systems that support person-centred care

Care needs to be organised in a way that promotes shared interdisciplinary assessment, communication and treatment in a teamwork fashion. Developing systems to secure valid, reliable and comprehensive data collection about symptoms as well as life histories for development of individualised intervention strategies and systematic outcome measurements are important. Such would preferably include all relevant aspects that might influence the person's well-being, which obviously involves drawing on the expertise of family.

3. Collecting personal history of patients

Collecting and disseminating information regarding who the person is can inform appropriate person-centred care by supporting staff to see the person 'behind the disease'. Knowledge of significant life events, interests, likes and dislikes can help to maintain and enhance a sense of self in older people whose world has been altered by the sudden onset of disease (Penrod et al 2007; Brooker 2004). In the case of Emmy, collecting such a personal history could have contributed to interpreting her behaviours as adequate reactions in light of her history as a holocaust survivor, and thus other care strategies aside of sedating her might have been chosen.

4. Establishing a trusting relationship

Person-centred care also entails giving attention and value to establishing relationships in addition to completing tasks. Establishing a relationship facilitates feelings of being seen and cared for, or in the case of task orientation, neglected and treated like an object. In acute care, patients and family have generally no competence to evaluate the medical procedures, but they can all evaluate the way in which they are encountered. Also, making space for meaningful activities can be of immense value. This can include basic activities such as reading the paper or helping out with serving lunch. Those are small but important things that can be provided even in a busy acute care environment, and can help to maintain a sense of self in the older patient (Edvardsson et al 2005).

5. Adapting environments to assist comprehension rather than confusion

The acute hospital environment can also be adapted to promote independence in finding different places such as the bathroom, the bed space, the dining space or other place. The environment should enhance rather than obstruct patient independence. Consider keeping corridors free from institutional clutter; symbols indicating the function of rooms, clear signage and other landmarks such as changes in colours, paintings, or other symbols have been shown beneficial for orientation (Day et al 2000). Conscientious use of colour and creating effective colour contrast in the environment can together with good lighting aid the older person to move about more confidently (Wijk 2001). If Emmy's personal history and needs had been known, the environment could then have been adapted to better fit her needs of calmness, staff presence and consolation.

6. Developing care plans with emphasis on strengths rather than problems

Care plans need to be developed directly with the older person, by the interdisciplinary team and in cooperation with family. The care plan should emphasise the older person's strengths and remaining abilities rather than focus on deficits and problems. The concept of informed flexibility, defined as facilitating decision making through sharing of information and integrating new information into care practices and perspectives, is one central constituent of person-centred care (Edvardsson et al 2008). In the case of Ronnie, he could share valuable information about Emmy with staff to integrate in daily practice. Also, taking part in planning for Emmy's stay might have facilitated a mutual understanding between him and the staff in addition to benefiting Emmy's care.

7. Offering a calm pace and optimal stimulation

The combination of a busy acute hospital setting and a lowered stress threshold in the older person (Hall and Buckwalter 1987) can create experiences of haste, chaos and disorganisation for the older person, as it did for Emmy. It might not be surprising to find reactions such as anxiety, agitation and restlessness in the older person as a response to sensory overload. A slower pace of care and carers, and reduced noise from telephones, buzzers and televisions can foster a relaxed and safe atmosphere (Edvardsson 2008). Optimal stimulation implies a fine balance and requires active reflection about the ambience of the ward. For Ronnie, the experience of seeing his mother in the busy acute hospital was very stressful. A small detail such as being met by staff providing a couple of minutes of calm attentive listening can contribute to beneficial family outcomes.

8. Having expert staff

The provision of person-centred care also requires staff members who are knowledgeable in the care of older people and understand the needs associated with old age and/or cognitive impairment. This includes knowledge of facts such as symptoms, disease progression, treatment regimens, outcomes, needs, and co-morbidities, but it also includes experience-based knowledge of what it means to be old, struck by illness, and being rushed to a foreign hospital environment. Staff also need knowledge of ethics, for example regarding clinical decisions such as when to abort treatment, provide treatment against someone's will and/or to use restraints. In the examples provided, it was illuminated how restraints and sedation were used to solve a stressful situation for staff even though current evidence discards such practice. However, it also highlights the difficult situation faced by staff trying to merge competing demands in midst of a high work load, and thus having care systems that support person-centred care becomes utterly important.

CONCLUSIONS AND RECOMMENDATIONS

It is not our intent to slant any blame towards physicians or nurses in the acute hospital settings, as we are well aware that most health care staff try their best to solve the equation of strict time constraints and increased work loads. However, available evidence indicates that we can do better for older people in acute care. Acute hospitals are 'fit for purpose', which is to respond to acute emergencies, road trauma and the like, undertake highly specialised and expensive tests, and conduct acute and planned surgery. However, most acute hospitals are not 'fit for purpose' in responding to the needs of the major users of their services, old, frail people with multiple co-morbidities and sometimes cognitive impairment as well. There is an inevitable culture clash between acute care where speed may be the essence in saving life and consultation with the patient is not an option, versus the slower paced, person-centred consultation and optimised stimulation that is quality elder care. The typical older patient with co-morbidities and general frailty does not present clear cut symptoms for straightforward diagnosis, efficient treatment and rapid discharge. Moreover, the acute hospital organisation into 'specialities' such as neurology and orthopaedics means that staff knowledge often lies within these specialities, something that can work against a holistic approach and quality outcome for older people. Although acute hospitals are excellent for single diagnoses, rapid treatments, and short stays, when older people end up in this setting they suffer from the consequences such visits are known to induce.

As an alternative to acute hospital admission, older people could be admitted for triage in older-friendly environments staffed by experts in care of older people, places in which their multidimensional care needs could be better met. Such 'older people centres' could be developed with similar interdisciplinary constitution, role and function as community health centres in which interdisciplinary teams could receive and triage older people; offer comprehensive assessments, perform holistic care planning and co-ordination, and provide medical treatments, interdisciplinary rehabilitation, day care and palliation both in residential care and in the community. Current nursing homes and residential care settings could be transformed into such older people centres, and people in need of traditional residential care could receive this in their homes, supported by home health care teams. Also, developments in tele-health could provide avenues to extend the expertise of such centres into rural areas, while also offering consultancy to home care teams and acute hospitals for those older people who still do require such care. Expanding and transforming nursing homes and sub-acute care settings into becoming such 'older people centres' can also be anticipated to make aged care more attractive to health care staff.

There has been some previous work to improve acute care of older people in Australia. For example, age–friendly principles and practices were developed to facilitate health services adopting policies and procedures that address the diverse needs of older patients and their carers (AHMAC 2004a). In addition; best practice approaches have been presented to minimise functional decline in the older person in acute, sub-acute and residential aged care settings (AHMAC 2004b) and to facilitate management of delirium in older people (AHMAC 2006). Furthermore, a guide for assessing older people in hospitals exist (AHMAC 2004c), as does a national action plan for improving care outcomes for older people across the acute-aged care continuum (AHMAC 2004d). These are all important contributions, however it remains unclear to what extent such work has been adopted in clinical practice.

Although we have suggested strategies that can improve acute hospital environments, a cynic would argue that economic reality and the slow pace of change make it unlikely that these strategies will be introduced to the extent required to meet the needs of many older people. More feasible is perhaps a balanced approach that provides some environmental adjustments for older people, core knowledge and skills for all staff, and access toerontic expertise in care of older people. If such adaptations are accompanied by continuous development of 'older people centres', we can start to better meet the multidimensional needs of older people. Our parents and grandparents deserve better than what they currently receive.

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Side effects of treatment in patients with hepatitis C - implications for nurse specialist practice

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KEY WORDS

hepatitis C, nurse specialist, nursing, symptoms, needs

ABSTRACT

Objective
To identify patients' perceptions of the side effects of Hepatitis C treatment.

Design
The research used a self-reporting postal survey design to identify reported side effects, related to hepatitis C treatment, suffered by patients attending a specialist nurse clinic.

Setting
The setting for this study was an outpatient hepatology clinic in a large general hospital in Ireland.

Subjects
The questionnaire was distributed to a convenience sample of 201 patients receiving hepatitis C treatment at the hospital.

Main outcome measure(s)
To determine what side effects are most common during hepatitis C treatment; to identify whether or not patients are satisfied with the nurse specialist/nurse led service and to identify the unmet support needs of patients on treatment.

Results
Several side effects were reported, including fatigue, sleep disturbances and weight loss. Another high scoring side effect was sexual dysfunction. Patients reported a high satisfaction with nurse specialist services.

Conclusions
Manifestations of treatment have implications for care management of this group. Routine assessment of quality of life or symptom related needs is suggested in addition to personalised support from nurse specialists. Raising patients' awareness of the potential side effects is very important in the approach to care, particularly in relation to compliance. In addition, providing information and advice to patients about how to manage their symptoms is essential.

INTRODUCTION

The high incidence of hepatitis C virus (HCV) makes it one of the greatest health threats facing the world today (Rhoads 2003). Hepatitis C is a treatable disease, and over the last few years increasing numbers of patients have been offered antiviral treatment to eradicate the virus. However, treatment is cytotoxic and associated with a multitude of adverse side effects (Zucker and Miller 2001). A combination of drug treatment and informational and psychological support, aimed at managing HCV symptoms and lifestyle, is often performed on an outpatient basis and in most cases led or supported by nurses. Nurses need to be highly skilled in this area, ideally nurse specialists (Zic 2005) and increasingly nurse specialists are at the forefront of care delivery: supervising patient treatment and monitoring side effects; providing patient education, counseling and support; maintaining records and clinical databases and participating in consultations (Ewart et al 2004).

The treatment for HCV involves a combination of two drugs: Pegylated Interferon (a subcutaneous injection that is given once weekly) and Ribavirin tablets that are taken orally each day (Fried 2002). In some patients (depending on genotype), this treatment has been shown to induce a sustained viral response (SVR), defined as undetectable hepatitis C PCR for six months after the end of treatment (Zic 2005). Poynard et al (2002) demonstrate that treatment of HCV resulting in an SVR prevents progression of liver fibrosis and may improve life expectancy. Studies have also found that patients who do not experience an SVR may benefit from the temporary decrease in liver inflammation and fibrosis while taking treatment (Shiffman et al 1999). Thus, adherence of patients to therapy is important because it can slow down the disease process.

There are more than six genotypes of HCV identified and genotype determines the duration of treatment (Fried 2002). The most common genotypes of HCV in Ireland are genotypes 1, 2 and 3 (Brennan et al 2004). Genotypes 2 and 3, on the other hand, are more common among intravenous drug users (IVDU). Other genotypes 4, 5 and 6, are uncommon, but with the increasing number of foreign national immigrants into Ireland, these genotypes are becoming more prevalent. In relation to treatment, genotypes 2 and 3 have similar traits and have the highest response rates; usually about 80% of cases clear the virus. These genotypes of HCV require 24 weeks of antiviral treatment. Conversely, genotypes 1, 4, 5 and 6 require 48 weeks of treatment but have poorer response rates; usually about a 48% chance of clearing the virus (Levine and Ghalib 2005).

HCV can affect individuals in many different ways. Fatigue is the primary symptom, often leading to poor quality of life (Ewart et al 2004; Glacken et al 2001). Nurses can offer advice to patients to manage fatigue symptoms focused on sleep management, energy conservation and exercise. Other symptoms include nausea, pain and depression, which can also have a serious impact on the ability to work and on quality of life (Temple-Smith et al 2004; Lawrence 2000). Unfortunately HCV treatment can initially compound and worsen these effects. Side effects such as worsening fatigue, insomnia, alopecia and arthralgia are common (Zucker and Miller 2001). Side effects can appear in clusters at different times during patient's therapy, regardless of their genotype or length of treatment (Zucker and Miller 2001). Other side effects include anorexia (Zucker and Miller 2001; Mulhall and Younossi 2005; Seyam et al 2005) depression (Zucker and Miller 2001; Bonaccorso et al 2002; Cornberg et al 2002; Leone 2002; Mulhall and Younossi 2005; Seyam et al 2005) skin irritations, anaemia , neutropenia and flu like symptoms (Zucker and Miller 2001) and myalgia (Mulhall and Younossi 2005). In some cases the side effects produced by therapy are so intense, patients feel forced to give up on treatment or doctors may even recommended this (Mulhall and Younossi 2005). Furthermore, depression can also increase the risk for patient non-compliance with antiviral therapy (Maddrey 1999). Although some basic description of side effects of HCV antiviral treatment appears in the literature, there is little documented evidence of the impact of specialist nursing services or patients' perceptions of their symptoms and side effects, their relative severity and whether or not their needs in relation to the symptoms are currently being met.

METHODOLOGY

This study aimed to determine what side effects are most common during hepatitis C treatment; to identify whether or not patients are satisfied with the nurse specialist/nurse led service and to identify the unmet support needs of patients on treatment. A convenience sample of HCV patients from a large urban general hospital completed a 59-item self-reporting postal questionnaire, developed for the purposes of this study. The sample included all the patients who attended a nurse-led hepatitis C treatment clinic and were cared for by a nurse specialist. The sample size was two hundred and one patients and inclusion criteria was defined as all the hepatitis C patients, over the age of eighteen years, who attended the hospital for antiviral treatment of hepatitis C from January 2004 to January 2007. Those under the age of eighteen were excluded. The response rate was 53% (n=106). Data were analysed using SPSS version 14.0. Frequency descriptive statistics were used to describe; the demographics of the sample, the most common side effects of treatment and the scores on patient's perceptions of support. The Chi-Square test where appropriate, was used to compare the demographic characteristics of responders. The Mann Whitney U-tests were used to compare satisfaction scores between patient groups and the Spearman's rank correlation was used to determine the linear association between perception scores and the variables of gender, age, genotype and risk factor.

FINDINGS

Sixty eight percent of the respondents were male the remainder was female. The majority of respondents (n=41, 39%) were aged between 26 and 35. Twenty five percent (n=27) were between the ages of 46 and 55 years, and twenty-three (n=24) were aged 36-45 years. There were thirteen respondents aged 55 or over and only one respondent aged between 18-25 years.

Over half (n=55, 52%) of the respondents had contracted HCV through intravenous drug use (IVDU). A further twenty two (22%) respondents did not know how they contracted the virus and while fifteen (14%) respondents state they got infected through a blood transfusion. Thirteen (12%) respondents stated they got the virus from other infected blood products. One person reported sexual contraction from an infected partner.

Genotypes 1, 2 and 3 made up for almost 80% of cases. The most common type of hepatitis C was Genotype 3 (n=47, 44%), followed by Genotype 1 (n=28, 26%). Nine (9%) respondents reported having Genotype 2 and only three (3%) respondents reported Genotype 5 and two (2%) Genotype 4. A further seventeen (16%) respondents were unsure of their genotype. There were no reports of Genotype 6.

There was almost an even amount of respondents who undertook either 24 (n=52, 49%) or 48 (n=53, 46%) week treatment. The majority of patients (n=94, 89%) completed the full course of recommended antiviral treatment while ten (9%) respondents did not.

Sixty-five (61%) respondents had a negative PCR result six months after completing treatment while twenty-two (21%) respondents did not. Twelve (11%) respondents were still awaiting results and seven (7%) were unsure whether they had cleared the virus or not.

Thirty-eight (81%) respondents with genotype 2 or 3 had a negative PCR result post treatment while nine (19%) respondents did not. Of those with genotype 1, 4, or 5, fourteen (52%) had a negative PCR result and thirteen (48%) did not. The proportion of genotypes 2 or 3 that cleared the virus was significantly different to the proportion of genotypes 1, 4 or 5 that cleared the virus (p =0.018, df =1). Similarly, route of contraction influence results, as those who reported contracting HCV through intravenous drug use were more likely to have cleared the virus (p= 0.013, df =1). The proportion of younger respondents that cleared the virus was also significantly different (p=0.001, df =1). Of those respondents who knew their PCR status post treatment (n=87), fifty-two were aged 45 years or younger, of which 72% cleared the virus, whereas only 26% of those over 46 years did.

The ten most commonly reported side effects are outlined in table 1. There were no statistically significant differences in the side effects scores according to genotypes. Similarly there were no statistically significant differences in scores according to gender.

Table 1: Ten Most Common Side Effects Experienced by Respondents

(n=106)	Very mild/mild	Moderate	Severe/very severe	Total (%)
	n=	n=	n=	
Fatigue	12	27	55	94 (89%)
Sleep Difficulties	23	18	50	92 (87%)
Weight Loss	30	26	33	89 (84%)
Poor Concentration	24	30	34	88 (83%)
Depression	26	23	39	88 (83%)
Skin Irritation	27	25	32	84 (79%)
Flu-like Symptoms	28	29	26	83 (78%)
Loss of Appetite	29	20	33	82 (77%)
Forgetfulness	28	23	31	82 (77%)
Pain in the Liver Area	35	33	10	78 (74%)

n= number of respondents

Table 2: Ten Least Common Side Effects Experienced by Respondents

(n=106)	Very mild/mild	Moderate	Severe/very severe	Total (%)
	n=	n=	n=	
Sexual Dysfunction	33	16	28	77 (73%)
Anxiety	30	16	30	76 (72%)
Muscle Aches	34	18	24	76 (72%)
Headaches	37	23	15	75 (71%)
Joint Pain	31	20	21	72 (68%)
Nausea	32	23	17	72 (68%)
Fever	38	20	8	66 (62%)
Hair Loss	35	11	19	65 (61%)
Low Red Cells	27	21	15	63 (59%)
Low White Cells	22	16	14	52 (49%)

n=number of respondents

Table 3: Other Side Effects Reported by Respondents

Side Effect	No. of Respondents
Anger	10
Nightmares	3
Paranoia	2
Mood Swings	1
Mouth Ulcers	6
Irritability	1
Eye Irritation	7
Tearful	1
Palpitations	1
Confusion	2
Hearing Problems	1

There were ten other side effects reported by respondents and these were identified as the ten less common effects of treatment (See table 2).

Patients were also asked to write down any other symptom(s) they experienced they believed might have been associated with HCV treatment. They were also asked to rate the severity of these symptoms (1=very mild and 5=very severe). This revealed 13 other side effects, which are listed in table 3.

Patients were later asked about their overall satisfaction in the HCV treatment clinic. The majority of respondents (n=69, 65%) answered 'very satisfied', thirty (28%) respondents said 'satisfied', two (2%) said 'dissatisfied' and four (4%) were 'very dissatisfied'. There were no statistically significant differences between these latter satisfaction scores according to gender, age, risk factor for developing HCV or genotype.

Patients were also asked to identify any needs they may have had while on treatment they felt were unsupported by the nurse specialist. Respondents described a total of fifteen unmet needs and table 4 lists these needs and the number of respondents who reported them.

Table 4: Unmet Support Needs reported by Respondents

	No. of respondents	%
Healthy Diet Information	2	3.8
Contact with others on treatment	2	3.8
More Phone Contact	4	7.7
Privacy during Consultations	3	5.8
	4	7.7
Advice on Mortgages/Life Assurance	2	3.8
More Counselling during treatment	6	11.5
More Nurse Specialists to reduce waiting times	4	7.7
More Support Post treatment	8	15.4
More Contact with the Doctor during treatment	1	1.9
Information to GP's about patient on treatment	2	3.8
Advice on Alternative Medications	1	1.9
An out of hours service helpline	4	7.7
More Social Worker Input	2	3.8
Less Judgmental of pts with history of IVDU	7	13.5
Total	52	100.0

DISCUSSION

Nurse specialists treating patients with HCV respond to a wide variety of patient needs given the very different range of clientele that may be affected by this condition (Fletcher 2003). Using expert skills, the specialist is able to provide a range of services aimed specifically at this group, and this study indicates that patients are indeed satisfied with at least one operation of this service. Given the elongated period of treatment, there is an opportunity for the nurse to build up a relationship with the client and personalise their support plan, and this is perhaps why satisfaction with services provided was so high. The high reported positive response to treatment is testament to the benefits of the medication management regimen, and these findings may provide reassurances to clients, particularly those with genotype 2 or 3 who are perhaps struggling to deal with the side effects at any given time. Although it is not clear from this study just how much information patients received, in other settings Hayter (2006) found that nurses were inclined to minimise side effect information in the belief that this may improve patient concordance with treatment compliance. However, Hayter's (2006) suggests that full details of side effects and other medication information should be provided; while initially this may be alarming, it will increasingly improve patients' confidence, as unprepared for side effects will have the opposite effect.

A relatively unique situation exists in the Republic of Ireland (ROI), currently, as there is no estimate of the prevalence of HCV among the general population (Brennan et al 2004). At the same time, there has been a highly publicised infection of an estimated 1,700 persons through the administration of blood and blood products contaminated with HCV (Consultative Council on Hepatitis 2005). These include women infected through anti-D immunoglobulin, persons with haemophilia, and recipients of blood transfusions and those who received treatment for renal disease (Consultative Council on Hepatitis 2005). This occurrence caused great upset to sufferers and their families, and many of these individuals are receiving treatment. An approximate 14% of the current sample report infection from this route. This issue obviously raises complex emotional and psychological needs that the nurse specialist must address in this setting. The higher reported clearing of the virus is however reassuring. Other issues that challenge nursing practice arise with almost half of the cohort reporting infection from IVDU, this group calls for a reduced stigmatisation of their condition, a factor which nurse specialists may need to address. The number reporting infection through sexual contact, although very low, needs further consideration in terms of education of both this population and the population in general.

Numbers of clients reporting side effects is high. In keeping with the literature on the topic, fatigue was reported as the most common side effect of HCV treatment (Zucker and Miller 2001). Sleeping difficulties also feature highly (Mulhall and Younossi 2005; Zucker and Miller 2001). Consistent with Seyam et al's (2005) findings, most clients suffered from weight loss. A much higher proportion of clients reported depression (83%) compared with previous findings of 41% (Bonaccorso et al 2002). Although this finding could be inflated due to self-reported, as opposed to clinical diagnosis in Bonaccorso et al's (2002) study, these findings need to be borne in mind when dealing with this client group. Other side effects, with the potential to significantly influence clients' quality of life are reported in this study. These include: poor concentration, skin irritation, flu-like symptoms, loss of appetite, forgetfulness and pain in the liver area. Although reported in the study as the ten least common side effects, the following were also commonly reported by the group: sexual dysfunction, anxiety, muscle aches, headaches, joint pain, nausea, fever and hair loss. All of these manifestations of treatment have implications for management of this group by nurse specialists. In the first instances raising clients' awareness to the potential effects is important and secondly providing information and advice to clients about how to manage their symptoms. Clients' express information needs related to symptom management more frequently that the requirement for technical information such as how their medication actually works. Although not hitherto reported, sexual dysfunction is a reported feature of this group. The exact nature and distribution of this problem needs further exploration from a research perspective. Nurse specialists at local level also need to become involved in assessing clients' difficulties in this area and encouraging them to report these. Referral to specific sexual dysfunction specialists may also be required.

Although not specifically explored in this study, all of the above symptoms may affect the health related quality of life (HLQL) of this client group. When discussing the range of similar symptoms, including fatigue, weight loss and nausea, associated with HIV and its treatment Webb and Norton (2004) suggest that the nurse has an essential role in the assessment and management of these to improve quality of life and further suggests the routine use of a HLQL assessment tool for this purpose. These authors discuss a range of both generic and disease specific quality of life assessment and suggest their usefulness as an adjunct to providing best quality of care to clients with chronic illness (Webb and Norton 2004). They suggest that this information would serve to monitor disease progression and response to treatment, help to identify physical and psychosocial problems and promote better treatment concordance.

Although patients' perceived support received from the nurse specialist to be satisfactory, some patients emphasised that aspects of support were lacking in terms of weight management, sleep management and support after treatment completion. The central issue here is that patient needs in these areas need to be swiftly identified by nurse specialists, perhaps through a quality of life measure as previously discussed or through the use of an alternative needs assessment tool.

CONCLUSIONS

Hepatology nurse specialists care needs to achieve a balance in services that offer not only clinically effective care, but which are also judged by patients as acceptable and beneficial. HCV treatment presents an enormous challenge for nurses due to individualised range of side effects and the impact they can have on a patient's quality of life. Many studies support the idea that supportive relationships between patients and nurse specialists facilitate patient well-being and physical comfort that contribute to both health and healing (Bousfield 1997). Therefore, nurse specialists' care can benefit from a clear understanding of the required support needs of this group. Further quantitative studies are required on the topic in relation to sexual dysfunction and the overall impact of side effects of HCV treatment of quality of life. Further qualitative approaches may be useful as this would help to obtain valuable information to understand the different factors that influence a patient's perception of nursing care (Cormier 2005; Tarkka at al 2003; Langford et al 1997). For example, additional qualitative studies focusing on the lived experience of individuals on HCV treatment could yield important information about the physical and psychological consequences of undergoing treatment for hepatitis C. At a time when nurse specialist roles are developing exponentially internationally it is important that hepatology nurse specialists begin to systematically gather research evidence on the patient's perspective that can positively influence their practice (Armstrong 1999).

RECOMMENDATIONS

Hepatology nurse specialists need to improve their skills in relation to counselling, weight management, sleep management and giving support in relation to sexual dysfunction. These important issues should be incorporated into continuing professional development programmes for this group to improve care provision. From a management perspective, hepatology units; hospitals; HCV support groups and national health authorities need to be aware of the detrimental effects of HCV treatment and the impact it can have on an individual's quality of life. They must strive to work together to provide services for HCV patients that address not only the physical but also the psychological and social problems that can arise as a result of HCV treatment. It could be suggested that members of HCV specialist groups join to provide a forum to discuss HCV management programs so as to ensure that there is a uniform understanding of the implications of HCV treatment for patients and the healthcare system.

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