

FROM THE EDITORS - Margaret McMillan and Jane Conway

DESCRIBING NEED AND SHAPING PRACTICE: AN OVERVIEW OF SUBMISSIONS TO AJAN

The guest editorial in this *AJAN* reflects the extent to which we believe in the value of practice as a scholarly endeavour. In this editorial we have chosen to reflect on how submission to a journal such as *AJAN* both describes and shapes advanced practice. In order to determine this, we have conducted a trend analysis of the work submitted for consideration for publication. The trend analysis revealed a number of recurring themes that are reflective of elements of advanced nursing practice which are universally applicable rather than specialty or context specific.

Close analysis of the contributions to *AJAN* in recent times provides the editors with some insight into what nurse clinicians, scholars and educators are thinking and reading about and the foci of their research efforts. An overview of the topics submitted for consideration provides a snapshot of contemporary issues pertinent to nursing practice, scholarship and education. These include:

- the diversity of contexts of practice;
- strategies for symptom management, approaches to care and decision making for quality patient outcomes;
- issues specific to life transitions from birth to death and gender;
- expressions of culture and its impact on practice and education;
- ethical, moral and philosophical dilemmas;
- nurses' responses to the ageing demographic;
- strategies for managing service processes and symptoms; and,
- preferences for research methodologies that address particular types of research questions.

Implicit in the research and scholarly papers submitted to *AJAN* is a clear demonstration of the capabilities of nurses with respect to planning and strategising in order to provide high levels of care and support for clientele whether they are patients or peers. Researchers are telling us about the problems that drove the development of their study questions, their research journey and the implications for patients and colleagues. There is generally evidence of critical reflection on practice and the application of solution oriented approaches to engaging in and responding to change in contexts, systems and processes.

There is also evidence of the complexity of the range of agenda confronting nurses in the workplace. In particular, writers are demonstrating proactive case

management and a capacity to find answers to challenging patient and personnel problems.

It would seem that the primary roles and functions of nursing work described by those who contribute to *AJAN* centre on a generic range of issues demonstrating:

- therapeutic relationships;
- care relationships;
- ethically justifiable practices;
- the effective utilisation of staff and other resources;
- the use of multiple approaches to decision making; and,
- the successes and challenges inherent in managing care for individuals and groups.

As the *AJAN* editors we are part of a process of peer review of articles submitted for publication. We look for consistency with *AJAN* guidelines, but above all we are looking for good ideas that will inform future directions in the care of people for whom nurses are responsible for and to.

In order to maintain objectivity and rigour, we use a cadre of peers with specialist insight into the range of nursing practices reflective of the needs within contemporary society and health services. Every article is reviewed by two reviewers who are able to detect what is different about the article, evaluate how well the messages are conveyed, determine how practical the ideas are when tested against the needs of consumers, and comment upon the extent to which alternative strategies are novel, feasible and sustainable. Both the writer and the reviewers retain their anonymity and thus the reviewers can provide objective and constructive feedback.

As editors we have to make the final judgment about the value of proceeding to publication. Sometimes we are faced with divergent sets of feedback and therefore have to act as mediators or seek an additional reviewer's insights. Whilst the process is lengthy, it needs to be thorough as we showcase nurses and nursing practice. We often have to temper our belief in the ideas with an appreciation of the extent to which the contribution to the literature is useful, interesting and generalisable.

While we value the contributions of nurses irrespective of their context of practice, their models of care and their views on the discipline of nursing, we are looking for articles that will capture the imagination of readers. We may be struck by the passion of the writer but can be challenged by the apparent lack of objectivity or structure to the arguments and the solutions posed by author/s. Indeed sometimes there might not be a high enough level of critique in the original submission. Authors frequently

celebrate their personal knowledge development and recently acquired awareness of the problems in contemporary practice through submitting work for publication. Sometimes, this leads to a limited awareness of the degree to which the solutions posed, while novel in a specific context, may be part of well established practice and patterns of delivery elsewhere. Sometimes submissions are redirected by the reviewers and/or editors to a different publication forum, often special interest group journals.

It is vital that more researchers and writers become reviewers as this process provides great insight into the inherent responsibility that role entails. It is a process that

requires collegial generosity but also considerable skill in the manner in which feedback is provided to authors. There is a need to be constructive in encouraging peers to write in a way that is meaningful to readers, yet maintains and develops the direction of the profession. Authors may be passionate about their research or practice journey but need to be able to engage others if lessons about practice are to be taken up.

This ability to share the professional development of self and seek and respond constructively to feedback provided by peers on submitted work should be highly valued as it is itself evidence of an element of advanced practice.

GUEST EDITORIAL - Julie Henderson, RN, Aged Care Cert, Grad Cert Adult Education, Master of Advanced Practice (Nurse Practitioner), Warabrook Aged Care Facility, New South Wales, Australia. Bryan McMinn, RN, BSc, MNurs(NP), FANZCMHN, Clinical Nurse Consultant, Mental Health of Older People, Hunter Mental Health Service, New South Wales, Australia

EXTENSIVE NEED, EXTENDED PRACTICE

In recent editions of *AJAN*, guest editorials have been provided by people who are experienced academics and managers in health care. In keeping with our commitment to highlighting developments in nursing, this editorial is the outcome of interviews conducted with experienced RNs who have recently completed studies to enable application for authorisation as Nurse Practitioners (NPs) in New South Wales.

We invited Julie Henderson and Bryan McMinn to share their thoughts about developments in nursing, particularly in aged care and mental health, and to reflect on their own professional development paths. In doing so, we wish to recognise and honour the expertise and experience of the many other nurses who achieve excellence in their clinical roles.

One of the key strategic goals of policy makers attempting to influence the extent to which workforce is responsive to service delivery needs is a focus on greater flexibility and an enhanced and extended scope of practice within professions. For many in the nursing profession, the achievement of NP as an award-recognised level of nurse has been a long time coming, but the rewards of professional action are beginning to be evidenced.

In Australia, the various registration boards/councils are at different stages of implementation of the formal processes of authorisation of NPs. Nevertheless, the movement is gaining momentum and sustainability. For example, in New South Wales, which has been focused on this initiative for over a decade, there are now 35 authorised NPs and over 30 more in transitional NP positions. These clinicians practice at an advanced level of nursing as well as undertaking activity that was historically governed by medical practitioners. This activity includes (through the use of a range of clinical guidelines) initiating and prescribing a range of medications, ordering diagnostic tests and making referrals to other providers.

Many NPs are now prepared through an increasing number of masters level programs, although some nurses approach the nursing registration boards directly to be authorised through processes involving showcasing of a portfolio, viva and case study presentation. The specifics and nature of their practice is dependent on the context of practice and the guidelines for positions. The two RNs we have spoken to share with you some insights into their

personal journeys resulting in an extension of their nursing roles and responsibilities.

Q: What are the changes in your practice environment that lead to identification of extensive needs and expanded practice roles in nursing?

Julie: My practice environment encompasses the private aged care sector which interfaces with the community and the acute care sector. It is 'high demand' aged care. I recognise a number of changes in society which suggest there is a real need for NPs. Our facility is currently in negotiations with the health department to become part of a pilot for the introduction of NPs in aged care.

While only a relatively small number of people are in residential aged care (RAC) at present, there is an expectation the numbers will increase. I know that about two thirds of people in acute health care facilities are over 65 years of age and that they generally stay longer than other patients. The people RAC facility staff are dealing with are frail, often requiring palliation, experience symptoms related to multiple pathology, and cover a vast age range. Many are extremely debilitated and there are increasing numbers experiencing dementia. There are greater numbers in dementia specific units now. Often the people who come into care have been given quality care by family members for a long period of time before they enter a RAC facility. It is often an acute care event with which families cannot cope that brings the person to the RAC placement. Families are very good at dealing with one individual at home, even though they are often stressed. I find it really challenging to deal with this individual, as well as their families, who find it hard to come to terms with the fact that their family member is now one of 30 other people all of whom have challenging behaviours that need to be managed.

Bryan: In my role as consultant-liaison nurse I have seen an increase in the extent to which nurses are integral to the effective functioning of a multidisciplinary health care team. I have also noticed that some of the issues in clinical practice are causing a shift in the roles within the nursing team itself. I think there is expansion in the role of nurses within all levels of nursing, not just the RN.

For example, when I undertake consultations in aged care settings, I noticed that the experienced RN has well honed skills in undertaking an activity such as meeting accreditation standards and securing funding.

Experienced RNs continue to engage with clients, but the purpose of the engagement has changed from being a direct caregiver to a facilitator of the processes that enables care delivery. Therefore, for the type of information about an individual client I require in my role as consultant-liaison nurse, I frequently have to ask assistants in nursing for information about patient behaviours, needs and responses to interventions. This has led to my awareness of the need for education programs for assistants in nursing to include things such as communication about patients with other members of the health care team, and a greater consciousness in myself of the need to modify my communication style.

I have also noted an increase in the intensity of nursing work in the acute care setting. I am challenged by the need to encourage nursing staff to participate in labour intensive therapeutic interventions with clients when the context in which they practice provides limited opportunities for this type of intervention. I think nurses often resort to more restrictive options for interventions with the clientele I work with as a result of the context of the work unit, not because they are unwilling to engage in less restrictive therapeutic interventions.

I am particularly enthusiastic and optimistic about the increasing recognition of general practice services as key components of primary health care and see the expanded role of the practice nurse as an exciting innovation in nursing. I think there is greater opportunity for effective care management through general practices and opportunity for practice nurses to operate at nurse practitioner level as they engage in screening, health promotion, gathering of thorough and corroborative information through skilled assessment and structured care planning.

Q: What are the changes in your existing role?

Julie: My practice has changed in a range of ways as a result of preparation for the role of NP. I recognise that I have the ability to deal with multiple demands simultaneously. I can accommodate a range of interactions and I have to deal with a range of problems that just one individual resident presents with. It is sometimes hard to conduct an audit trail on the resident's symptoms, but I know I have advanced assessment skills, they're really more finely tuned now. I have turned what I knew was intuition based on my experience into an ability to assess situations requiring good clinical responses.

Bryan: I don't think my role has changed, but my capacity to meet the domains of practice for a clinical nurse consultant (CNC) has improved enormously. I was particularly attracted to opportunities to develop my skills in diagnostic and therapeutic interventions as these underpin effective practice irrespective of the terms and conditions of employment. Because I work in a multidisciplinary team that is comparatively well resourced in terms of personnel, and am often involved in policy and strategy development, the need for me to do

things like write prescriptions, order tests and make referrals is quite limited. Having said that, I see possibilities for CNCs who have a more clinically focused workload to become NPs, particularly in rural, remote or isolated practice settings.

Undertaking masters level study has also refined and consolidated my skill in investigation and analysis, research and education, and increased my awareness of the contribution evidence based practice can make to nursing practice.

Q: What do you see as the outcomes of your professional development?

Julie: I can really make an assessment of my own capabilities and know when to refer to others. You can use all your skill, but sometimes there is a need for back up information to assist with a nursing diagnosis. For example, some additional information might tell me that the muscle wasting is contributing to the resident's recurring falls. Finding a rationale is all part of an assessment process. I find I have to manage a huge amount of information that is available to me. Hence, I take a 'helicopter' view, and then hone in on the information that is relevant to the situation right now. I do this through critical appraisal, being careful about the evidence base from which the information comes, and drilling down when I've hit the right spot.

There are lots of positive personal changes that have been part of my journey. I know we, as nurses, need lots more research in aged care. We need a lot more evidence about our practice. I have also seen this personal initiative as a great opportunity for role modelling to other nurses that we make an impact, that we have an ability to influence. I have let the RNs I work with see the value that can come from these initiatives.

I was also a 'hub educator' in a local transition unit, a new model of managing older people who leave hospital and might have to go to a RAC unit. We look at this as a feeder for admission to our facility and others. We can see that the person who has this transition care comes with the experience of 'enablement', that is the resident has maximum capacity through rehabilitation. In many ways it increases their independence and impacts on the nature of the care they need.

I can see from my preparation for practice as a NP that I have greater self-awareness and I have more confidence in my own ability to practice. The use of learning contracts encourages self-direction. When self-appraising there is a need to be really honest about what you don't know. At first you feel confronted but when you get beyond the self-consciousness you realise you can use critical mentors, both nurses and other health professionals.

Bryan: I have a broader appreciation of the extent to which the service I work in and the skills I have contribute to health care delivery. I am also conscious of

the diversity in nursing work and models of care and see that, although I work in a tertiary care setting with a narrow specialist role, there is considerable value to clients through the establishment of NP roles especially where nurses work autonomously in primary health care and as case managers.

Q: What are your plans for ongoing personal and professional development?

Julie: I will continue to use peers to help me with ongoing professional development. I take the view that if I 'need to know, I need to grow' through finding out. I'm going to keep a 'track sheet', a sort of critical incident record of problems, my rationale for actions, and the resolution of the problem. It's a simple template but I will be able to monitor my progress.

Bryan: One of the most useful strategies that I have participated in and found invaluable has been mentorship. This has enabled me to support others and in doing so develop myself. We need to recognise and not lose sight of the importance of collegial interaction through mentorship as a strategy for learning and acknowledge that it is as valuable and valid as academic activity.

Q: What do you see as potential threats to extended care roles for nurses in your context of practice?

Julie: There are a number of threats to the development of NP roles in aged care. One of those is

obviously finance. Under the current aged care funding arrangements it's hard to imagine how the role could be initiated and sustained. There is some sensitivity about the NP role being one of substitution but general practitioners are OK if they're informed and 'in the loop'. They actually see the advanced nurse as a good intermediary and they value knowing there is a constant contact when there is such a range of personnel in staff profiles these days.

Bryan: The incentives to take up the role remain dependent on context and resources and models of service delivery. The diagnostic and therapeutic components of nurses' work and the expansion of nurses' roles because of extended needs should be fostered. I see this as a time of fantastic opportunity to provide effective primary care and enhance continuity of care for clients.

From the above interviews with these experienced clinicians, it is evident that nurses' capacity to engage in professional development is targeted toward meeting the needs of the population in ways that:

- acknowledge the interplay between contexts of practice and nursing roles;
- accommodate changing political and social environments; and,
- establish collegial learning and practice relationships.

DETERMINANTS OF JOB SATISFACTION AMONG NURSES IN KUWAIT

Makhdoom A. Shah, ScD, is Chairman, Department of Health Information Administration and Vice Dean (Academic Affairs), Faculty of Allied Health Sciences and Nursing, Kuwait University, Kuwait

Naser Al-Enezi, PhD, is Assistant Professor, Department of Health Information Administration and Vice Dean (Student Affairs), Faculty of Allied Health Sciences and Nursing, Kuwait University, Kuwait

Rafiq I. Chowdhury, MS, is Senior Lecturer, Department of Health Information Administration, Faculty of Allied Health Sciences and Nursing, Kuwait University, Kuwait

Mohammed Al Otabi, PhD, is Assistant Professor, Department of Nursing, Faculty of Allied Health Sciences and Nursing, Kuwait University, Kuwait

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Key words: job satisfaction, global scale, background characteristics, neutral score

ABSTRACT

Objective

Job satisfaction among nurses working in five general hospitals in Kuwait was analysed using a global scale based on the McClosky Mueller Satisfaction Scale (MMSS) in relation to selected background characteristics (eg age, gender, nationality, educational qualification, monthly salary and the departments in which they worked).

Design

The questionnaire was distributed to 500 nurses using a stratified random sample. The response rate was 87.2%.

Results

Age, nationality and the department worked in had a positive significant relationship with job satisfaction. However, a higher level of educational qualification and previous work experience in other countries showed an inverse relationship with job satisfaction.

Conclusion

Based on our findings, we recommend that expatriate staff should be provided with an understanding of cultural differences and how to cope with them. Special attention should be paid to the norms regarding interaction among males and females and social interaction among professionals from the opposite gender. Intensive courses in the languages to be used in the care provision process should be provided to impart requisite language competency.

INTRODUCTION

Quality of health care is a multi dimensional phenomenon. Job satisfaction among health care providers is a crucial variable among the determinants of quality of health care. A number of studies have been undertaken internationally to measure job satisfaction among care providers and its relationship with quality of care.

A number of studies have reported that employees who are satisfied in their job tend to stay longer in the job (Hinshaw et al 1987; Taunton et al 1989; Tett and Meyer 1993). Research also shows that employees who experience job satisfaction are more likely to be productive (Cohen and Josefovitz 1980; Likert and Katz 1979).

Job dissatisfaction, on the other hand, leads to absenteeism, tardiness, grievances and increased turnover and therefore results in higher employment costs (Hinshaw et al 1987; Tett and Meyer 1993; Lucas et al 1993; Porter and Steers 1973; Seashore and Tabar 1995; Weisman et al 1981; Price and Mueller 1981; Prestholdt et al 1988). Also, job dissatisfaction decreases job performance and has a negative influence on the quality of care (Brayfield and Crockett 1995; Petty et al 1984).

Butler and Parsons (1989) found adequate monetary compensation and flexibility in work schedule to be predictors of job satisfaction. Cambey and Alexander (1998), in their study of public health nurses, found that participation in decision-making and formalisation of organisational structure contributed to job satisfaction. Tonges et al (1998) found that interpersonal identity, work related identity and autonomy were found to be significant predictors of job satisfaction among nurses. Cronin and Becherer (1999) found functional verbal feedback and meaningful recognition as satisfiers among nurses. Abu Ajmieh et al (1996), in their study of Palestinian nurses, reported timely feedback from

supervisors and culturally relevant recognition as satisfiers. Kangas et al (1999) reported that nurses who perceived the organisational environment as supportive were more satisfied. Yamashita (1995), in a study of job satisfaction among Japanese nurses, reported a positive correlation between age and years of experience and satisfaction. Agho (1993) found instrumental communication and positive affectivity as major determinants of job satisfaction among nurses.

The literature provides sufficient evidence to suggest that when care givers are satisfied, their patients are more likely to be satisfied (Parrinello 1990; Shain 1990; Weisman and Nathanson 1985). Research also shows that nurses who are satisfied with their job have a higher level of organisational commitment (Acorn et al 1997).

The role of a nurse, as a member of the health care team, is of paramount importance in the preservation of quality of care and patient satisfaction. However, it has been reported that nurses work in an extremely stressful environment (David et al 1996). Limited work has been undertaken in Kuwait to measure nurses' job satisfaction (Al-Kandari and Ogundeyin 1998; Al-Enezi 1998; Shah et al 2001). In one study from Kuwait, Dalayon (1990) reported that nurses who work in a language and culturally diverse setting work under considerable stress. Also, their performance can be affected adversely if they are not satisfied with their job (Joey and Steven 1997).

BACKGROUND

Kuwait is a small oil rich Arab-Muslim country of 2.2 million people, only 35% of whom are Kuwaiti nationals. Non-Kuwaitis are comprised of persons of many nationalities from Arab as well as Asian countries. People from over 100 countries form the expatriate community (Public Authority on Civil Information 2000). About 90% of all health care services are provided by the government (Vital and Health Statistics Division 2000; Naim et al 1986). Kuwaiti nationals get all health care services free of charge, whereas expatriates have to pay a nominal fee.

The country has a three-tier health care delivery system. The entry point for accessing services is through primary health care centres (PHCs). There is one PHC for approximately every 30,000 people. There are 70 general health care centres, 25 maternal care centres and 64 child care centres. Secondary care as well as emergency care are provided through five general hospitals. Finally, there are 18 tertiary care hospitals and centres that provide specialised care (Vital and Health Statistics Division 2000). Kuwaiti patients generally converse in Arabic. For health care provision, however, the Ministry of Health (MoH) relies heavily on expatriate human resources.

Nursing care is provided by 8,232 nurses, of whom 1,496 (18%) are males. Nurses working in the MoH are from 35 countries. Of the total nurses, 997 (12%) are Kuwaitis. Thus, Kuwait has an acute shortage of nurses. The highest portion of nurses is from India (42.4%), followed by Filipinos (15.6%), Egyptians (13.9%), Pakistanis (4.8%) and Indonesians (3.0%). A vast majority of the Indian nurses and all of the Filipino nurses

are non-Muslims. In addition to 12.1% Kuwaiti nurses, 19.5% are from 16 other Arabic speaking countries (Manpower Statistics 2000). Thus, the nurse workforce in Kuwait represents an enormous array of ethnic, cultural, and linguistic diversity.

Conceptual framework for job satisfaction

Job satisfaction is a complex phenomenon. A number of conceptual frameworks have been developed to explain its dynamics. The human relations management movement of the 1940s focussed considerable attention on this subject. However, Maslow's classical work on motivational theory has been a major influence on job satisfaction theory (Brunner 1989). Maslow believed that humans are motivated and their behaviours are determined by unsatisfied needs. In this regard he considered deficiency needs and growth needs. Another landmark contribution related to work satisfaction is that of Herzberg et al (1959). His two-factor theory differentiates between motivation factors that influence job satisfaction (achievement, recognition, work itself, responsibility, and growth) and hygiene factors (supervision, physical working conditions, interpersonal relationships, benefits, management, and job security). Pasternak (1988), in his work, suggests that the Herzberg model in fact confirms Maslow's theory.

Abu Ajmieh et al (1996) propose that the work of Maslow and Herzberg did not have sufficient support from research and therefore their works are not considered as an 'all inclusive' job satisfaction theory. In 1990, Mueller and McCloskey tested a scale resulting in 33 questions measuring McCloskey's three dimensions of job satisfaction. A subsequent factor analysis of the 33 items, and a further refinement consisting of 31 items, resulted in Mueller and McCloskey's identification of eight sub-scales. The instrument has been reported to be highly reliable with an internal consistency of 0.89 (Mueller and McCloskey 1990). The findings from the West Bank study, from an Arab country and similar to the present study (Abu Ajmieh et al 1996) supported the use of the Mueller McCloskey scale in non-USA countries and cultures. However, they suggested that some modifications and refinements are needed in the Mueller McCloskey scale to use in the different cultures.

The Mueller McCloskey Satisfaction Scale (MMSS) provides a comprehensive method to study job satisfaction among nurses. We therefore used it in Kuwait which, as a workplace, as mentioned earlier, represents an enormous array of ethnic, cultural, and linguistic diversity.

Research questions

The study had three questions:

- i What was the level of job satisfaction using the Mueller McCloskey Satisfaction Scale (MMSS)?
- ii What was the relationship between selected background characteristics and MMSS?
- iii What are the predictors of job satisfaction among nurses?

METHOD

Sample

The study population consisted of 3,032 nurses employed in the five general hospitals. A stratified random sample of proportionate size for each hospital was used. The initial sample size, derived by using the formula for simple random sampling, was 384. After adding the design effect for stratified random sampling, the sample size became 500. The questionnaire was distributed to the 500 randomly selected nurses, in January 1999, in the hospitals. The respondents were requested to drop the completed questionnaire in the designated box kept in each hospital. At the end of the data collection period, a total of 436 completed, self-administered questionnaires were returned, yielding a response rate of 87.2%. The anonymity of all respondents was preserved. In keeping with the standard research protocol, necessary permission was obtained from the concerned authorities of the Ministry of Health for data collection.

Instrument

For the purpose of our study, 21 items were selected out of the 31 items of the Mueller McCloskey scale. Ten items that were not applicable to Kuwait were excluded. These pertain to benefit packages, insurance, part-time work, child care facilities, flexibility in scheduling and weekends off. These privileges are not a part of the employment benefits for nurses or, for that matter, for other care providers in Kuwait. All health care providers in the MoH, it may be noted, are provided a standard salary in keeping with academic qualifications and experience. Medical insurance is not needed because all employees of the MoH are entitled to free medical care. Child care and flexibility in scheduling weekends off are not a part of the Kuwaiti administrative system.

The eight subscales developed by Mueller McClosky from 31 items were: (i) extrinsic reward; (ii) scheduling; (iii) balance of family and work; (iv) interaction with co-workers; (v) interaction opportunities; (vi) professional opportunities; (vii) praise and recognition; and (viii) control and responsibility. The range of scores for each factor varied according to the number of items included; and higher the score the higher the degree of job satisfaction. Each item on the Mueller McCloskey scale was measured on a five-point Likert scale which was also adopted in the present study. The responses on the Likert scale ranged from 5 (very satisfied) to 1 (very dissatisfied).

The total possible minimum score for the subscale was 21 and the maximum was 105. For the purpose of analysis, a score to represent a 'satisfied' respondent was needed. However, Mueller McCloskey did not provide the determination of a 'satisfied' score. We therefore used the following procedure. Considering that the neutral point on the scale was 'neither satisfied nor dissatisfied' and had a score of 3, and a score of 4 represented the lowest level of

Table 1: Average and standard deviation (SD) on global scale by selected background characteristics (n=436)

Background Characteristics	Job Satisfaction Scale	
	Mean	SD
Global Score	68.6	13.5
Age (years)*		
Less than 30	65.9	13.1
30-39	69.5	13.7
40 and above	70.2	13.4
Gender		
Male	67.4	13.4
Female	68.8	13.5
Nationality**		
Kuwaiti and Arabs	72.9	13.4
Indians	70.8	12.6
Filipinos	62.3	13.8
Others	67.6	12.2
Educational qualification**		
Diploma	71.6	12.6
Bachelor	63.0	13.4
Monthly salary**		
<200 KD	70.8	12.8
200-300 KD	66.4	13.2
301+ KD	69.6	15.6
Departments		
Casualty	66.97	14.2
OR	68.2	9.9
Medical ward	70.7	13.3
Surgical ward	69.6	14.0
ICU	70.7	12.1
Paediatric ward	66.2	14.6
Maternity ward	67.9	12.5
Others	65.0	14.2
Where spouse lives**		
In Kuwait	70.9	13.2
Abroad	67.2	13.4
Experience in Kuwait		
1-5 years	66.3	12.1
6-10 years	69.8	13.6
11-15 years	69.6	14.1
16+ years	70.4	14.8
Worked anywhere else		
No	69.9	13.5
Yes	68.1	13.6

* Significant at 5% level

** Significant at 1% level

being 'satisfied', a respondent who got an overall score of 63 (21x3) was treated as neutral. Therefore a total score of 64 was considered as the lowest level of satisfaction. The above conforms to the decisions of the study undertaken by Cambey and Alexander (1998). Cronbach's alpha (reliability coefficient) was used to determine the internal consistency of the instrument. The value of the alpha for the global scale in our study was 0.89, which is the same as for the global scale in the Mueller and McCloskey's 1990 study. The construct validity was assessed by factor analysis using factor loadings; these ranged from 0.57 to 0.83 except one item which was 0.39

(compensation for work during holidays). The questionnaire was translated into Arabic and translated back into English by an independent professional, to check the validity.

The background characteristics assessed in our study were: age, sex, nationality, educational level, monthly salary, place of work in terms of department within a hospital, whether spouse lived in Kuwait, years of experience in Kuwait, and whether the respondent had worked as a nurse in another country before undertaking the job in Kuwait.

Table 2: Multiple regression analysis of job satisfaction (dependent variable: Overall job satisfaction) n=436

Characteristics	Coefficient	Standardised coefficient	Level of Significance
Age	4.036	0.212**	0.001
Sex			
Male	-0.299	-0.008	0.869
Female	0.00	1.00	
Educational qualification	-5.701	-0.202**	0.002
Where spouse lives			
In Kuwait	2.321	0.086	0.112
Not in Kuwait	0.00	1.00	
Monthly salary	-0.590	-0.030	0.632
Experience in Kuwait	-1.197	-0.099	0.158
Previous work experience in other country			
Yes	-2.885	-0.100*	0.041
No	0.00	1.00	
Department working in:			
Casualty	0.851	0.017	0.764
OR	0.602	0.010	0.853
Medical ward	5.314	0.172**	0.014
Surgical ward	4.839	0.142*	0.032
ICU	5.211	0.118*	0.047
Paediatric ward	1.512	0.035	0.559
Obs & Gyn	3.919	0.082	0.157
Others (endoscopy, dental, nephrology, etc)	0.00	1.00	
Nationality (Yes=1)			
Kuwaiti & other Arabs	5.101	0.142*	0.031
Indians	1.492	0.055	0.463
Filipinos	-2.333	-0.074	0.332
Others (Europeans & North Americans)	0.00	1.00	
Constant	64.785		0.000
F- value	5.01 (p<0.01)		
Adjusted R ²	0.14		

* Significant at 5% level ** Significant at 1% level

ANALYSIS

The average for the global scale was 68.6 and the standard deviation was 13.5 (see table 1). In terms of age, respondents in each of the three categories had an overall score higher than the neutral score (ie 63). Respondents aged above 30 were significantly more satisfied than those below 30. Regarding gender, both male and female nurses had an overall score slightly higher than the neutral score. However, there was no significant difference between them. With regard to nationality, Kuwaitis and other Arabs were more satisfied, followed by Indians, while the Filipinos were not satisfied and the difference was significant.

Respondents who had a diploma were significantly more satisfied than those who had a bachelors degree. The overall score of diploma holders was much higher than the neutral score, while that of the bachelor degree holders was equal to the neutral score.

Regarding salary, respondents in each of the three categories had an overall score higher than the neutral score. However, those who got a monthly salary of 200 Kuwaiti Dinars or less were relatively more satisfied compared to the respondents in the other two categories.

On place of work within a hospital, the overall score for each setting was higher than the neutral score. However, the scores for respondents who worked in medical wards, surgical wards, or ICU were relatively higher than those who worked in other wards.

The respondents whose spouses lived in Kuwait were more satisfied than those whose spouses lived abroad, with the overall score being higher than the neutral score for respondents in both categories. The relationship between the number of years of experience in Kuwait and satisfaction showed that respondents who had worked for six or more years were more satisfied. However, the overall score for respondents in each of the four duration categories was higher than the neutral score.

Finally, the overall scores of respondents who had worked in a country other than Kuwait and those who had not, were both higher than the neutral score.

Multivariate analysis

To assess the relationship between those background characteristics that had a significant association with the job satisfaction, we used multiple linear regression. The overall job satisfaction score was used as the dependent variable, for which the scores ranged from 21 to 105.

Dummy variables for each category were created for two categorical variables: department where respondent worked and nationality. For nationality, 'other' (includes Europeans and North Americans) was treated as the omitted category, while for department 'other department' (includes endoscopy, dental, nephrology, etc) was treated as the omitted category.

Table 2 presents the results of the multiple regression analysis. The overall model was significant ($F=5.01$, $p<0.01$) and the value of the adjusted R^2 was 0.14. Age, Kuwaiti nationality, and working in a surgical department, medical department or ICU were found to be significant and showed a positive relationship with overall job satisfaction score. However, educational qualification and employment in another country before taking up the job in Kuwait showed a significant but inverse relationship with the overall job satisfaction. The rest of the independent variables were not significantly associated with job satisfaction.

DISCUSSION

Consistent with previous research (Warr 1992), we found that older nurses were more satisfied with their jobs. It appears that as professionals mature age-wise and gather more experience, they tend to make a better adjustment to the work environment when compared with younger peers. Also, it is relatively more difficult for older professionals in the Middle East to switch jobs and find compatible positions elsewhere. Further, the age for retirement in most of the developing countries is relatively low compared to that in developed countries. Therefore, nurses who are aged 40 or over have extremely limited job opportunities in their own countries should they opt to return. Finally, the wages for the same or similar jobs in the countries or origin (Egypt, Syria, India, Philippines, Pakistan, and Bangladesh) are much lower than those in the Gulf Cooperation Council (GCC) countries (Shah 1994). Besides, older and experienced persons are accorded greater recognition by the supervisors and administrators in the Arab culture and, therefore, they tend to be more satisfied. All of these factors result in a likely higher level of satisfaction among older nurses.

Nurses with a diploma were found to have a higher level of satisfaction compared to bachelor degree holders, similar to the results of a previous study (Cambey and Alexander 1998). An investigation into the salary structure of nurses revealed that there is an insignificant difference in the salary of those who have diploma as opposed to those who have a bachelor degree, which might explain why diploma holders are comparatively more satisfied. Another possible reason for the finding is that while bachelor degree holders receive compatible salaries in other countries in the region, the diploma holders get relatively higher salaries in Kuwait, compared to salaries offered elsewhere in the region.

Nurses who had worked in another country before coming to Kuwait were less satisfied compared to those who had not worked elsewhere. One plausible explanation for the finding is that nurses who had worked at some other place within the region have a point of reference.

Nurses who worked on a medical ward, a surgical ward, or ICU were found to be more satisfied with their job, with those who worked in ICU being relatively less satisfied. This finding is consistent with that of another study (Yamashita 1995). Our discussions with care providers in Kuwait, physicians and nurses alike, revealed that nurses tend to like those settings of work where they have a greater control over patient care; and medical and surgical wards offer such an opportunity. Nurses who worked in casualty, or emergency rooms (ER), for example, had the lowest satisfaction score in our study. Nurses reported that they did not like to work in those settings where there is a higher pressure of work, as is the case with emergency room (ER) services. ER services have been found to be heavily overutilised in Kuwait (Shah and Shah 1992-93; Shah et al 1994-95; Shah et al 1996; Shah et al 1997). No triage system is followed and, therefore, some patients who are not truly in need of emergency care are provided services through ER, thus resulting in a heavy burden on the staff.

Finally, regarding nationality, Kuwaitis and other Arabs were found to be more satisfied, followed by Indians. The Filipino nurses were the least satisfied. This may partly be because the official language in the MoH is Arabic and the majority of supervisors are either Kuwaitis or non-Kuwaiti Arabs. Therefore the Arab employees tend to enjoy a better rapport and working relationship with Arabic-speaking supervisors; and that results in a higher level of satisfaction among them. However, this may also be due to their general satisfaction in life as they live in a culturally compatible environment. Indian nurses are relatively more satisfied than Filipino nurses. This may be because the Indian nurses come from relatively conservative cultures and have fewer problems in adjusting to the conservative Kuwait culture (Shah 2000). Filipinos, on the other hand, besides having difficulty with the language, also may have some difficulty with the culture. The Philippines as a society is relatively more open and where interaction among male and females, contrary to the social norm in Kuwait, is far more permissible (Shah et al 2001).

CONCLUSION

In summary, the older nurses were more satisfied with their job as were the nurses who held a diploma compared to those who had a baccalaureate degree. Experience of working in another country prior to Kuwait had a negative effect on satisfaction level. Nurses were found to be more satisfied in work settings in which they had greater control over patient care. Finally, comprehension of Arabic language and cultural compatibility emerged as facilitators of job satisfaction. We therefore propose that the above factors be given due consideration in recruitment of nurses as members of the health care team. Our findings have special relevance for health care services of those societies which recruit human resources from overseas.

Specifically, we recommend that societies with a shortage of nursing and other professional staff, while recruiting expatriates should pay attention to the following. Through a carefully planned orientation program, the expatriate staff may be provided with an understanding of cultural differences and how to cope with them. Special attention should be paid to the norms regarding interaction among males and females in general, and social interaction among professionals from opposite genders, in particular. For instance, it is customary in the western culture to shake hand with colleagues. But in the Islamic culture, if a person tries to shake hands with a colleague of the opposite gender, it is frowned upon and in some cases it is shunned. Similarly, in conference rooms, lecture theatres and cafeterias, it is a common norm among conservative cultures that males and females should not intermingle. With regard to language barriers, it is recommended that staff should be provided with intensive courses in the language to be used in the care provision process. Language cannot be learnt through short on-the-job experiences, as has generally been the way in Kuwait and other Gulf countries.

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THE EFFECTIVENESS OF A TRAINING PROGRAM FOR EMERGENCY DEPARTMENT NURSES IN MANAGING VIOLENT SITUATIONS

Cecil Deans, PhD, Associate Professor of Clinical Nursing, University of Ballarat and Ballarat Health Services, Australia

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ABSTRACT

An Australian Institute of Criminology report (1999) highlighted the health industry as the most violent industry in Australia with registered nurses recording the second highest number of violence-related workers compensation claims, ranking higher than prison and police officers. Workplace violence has become such a common phenomenon that many nurses accept it as a part of nursing. Nurses employed in emergency departments (EDs) are considered to be especially vulnerable to workplace violence.

Although there have been a number of studies reporting on the incidence of workplace violence and its consequences upon nurses, to date there have been no empirical studies that have evaluated interventions which are thought to reduce its occurrence and impact.

This study investigated the effectiveness of a one-day training program in which ED nurses participated. In particular, their knowledge, skills and attitudes relating to management of workplace violence were examined.

Results show that a training program has many positive outcomes which enhance nurses' ability to manage aggressive behaviours. With some basic training, ED nurses can be more prepared to manage violent and potentially violent situations, and by doing so may in fact reduce the incidence of aggression in their workplace by 50%. This has largely been achieved by raising the awareness of ED nurses to the nature of the problem, developing their knowledge and skills in managing aggressive behaviour, and improving their attitudes toward potentially violent patients.

INTRODUCTION

A report by Perrone (1999) for the Australian Institute of Criminology, showed the health industry as the most violent industry in Australia with registered nurses recording the second highest number of violence-related workers compensation claims in 1995/96, ranking higher than prison and police officers. Zernike and Sharpe (1998) reported that nurses at the Royal Brisbane Hospital, Australia, felt they had become acclimatised to aggressive behaviour and accepted it as part of the nature of nursing work. Jones and Lyneham (2000, p.27) argue that this acceptance of violence as 'part of the job' conceals workplace aggression as an important issue for nurses.

There has been a long history of violence in EDs with a Mrs Cardwell, senior night sister, Accident and Emergency Department at St Thomas' Hospital, London, reporting that the Department of Health and Social Services (United Kingdom) issued a circular in 1976 on the management of violent patients (Cardwell 1984). In 1999 the International Council of Nurses claimed that nurses working in EDs are especially vulnerable to physical assault and verbal abuse. Within the general hospital system, EDs have been identified as a high risk public area (Lyneham 2000) where emergency nurses report their lifetime exposure to violence as very high (Levin, Hewitt and Misner 1998). Lyneham (2000), in a study of 650 members of the New South Wales, Australia, Emergency Nurses Association, reported that 100% of respondents experienced some type of violence in the ED. Cembrowicz and Shepard (1992) reported on trauma sustained in an ED in which the majority of injuries resulted from being punched, kicked, grabbed, stabbed, scratched, slapped, head-butted, strangled and hair pulling, and by the use of furniture and fittings, knives, wheelchairs, broken bottles, broken glass, scaffold poles, planks, scissors, stretcher poles, syringes and needles. The

focus of the Cembrowicz and Shepard study was on physical injuries. They concluded that physical aggression was an increasing concern for nurses employed in EDs and hospitals must develop strategies and policies that reduce the risk of nurses being injured. Lyneham (2000) demonstrated that workplace violence continued to be a major issue for nurses and suggested that nurses were not satisfied with the response of administration to violent incidents within hospitals. Enchinias (1991) in the United States of America argued that there were significant differences in problems between rural and metropolitan EDs with lack of funding for staff and inappropriate staff responsibilities contributing to an increase risk of violence in rural EDs compared to metropolitan EDs. Lyneham (2000) suggests that although Australia experiences similar difficulties as the USA, minimal investigations have been conducted.

A factor that may account for the violence against nurses may be a lack of knowledge and skill as indicated by Mahoney (1991) who suggested that some nurses employed in EDs believed that their attitude might incite some instances of violence. Levin, Hewitt and Misner (1998) found that nurses' attitudes and behaviours were important factors related to the risk of violence. This result was supported by Lyneham's (2000 p.15) finding that 'there was an acknowledgement that there are often situations where the emergency nurse's behavior creates or exacerbates a volatile situation'. She concluded there was a lack of institutional support for training to deal with violent situations. One recommendation which is pertinent to the current study was that funds should be available for training at times when ED staff are not part of the shift complement.

Examination of the literature suggested that while some authors recommend training in the prevention and management of violence (Bowie 2000; Mason and Chandley 999), the most significant gap in the research literature was the absence of studies that investigated the effectiveness of interventions which might reduce aggressive incidents and their sequelae. For example, although Nield-Anderson and Doubrava (1993) reported on a program designed for ED staff to defuse aggression, no formal evaluation of the program was conducted. It was considered imperative by the researcher that the role effectiveness of training in the prevention and management of violence be studied and clarified, in order to generate recommendations for policies and procedures that address future acts of aggressive behaviour toward nurses.

The purpose of the present investigation was to determine if a training program in the prevention and management of violence had been experienced as improving knowledge, skills and attitudes of nurses employed in a regional ED with regard to their role of managing aggressive behaviour from patients. The program was presented by four experienced psychiatric nurses who had post basic education in workplace training and assessment.

The one day training program aimed to fulfil the following objectives.

At the completion of the training program participants will:

- Be aware of their work environment and responsibilities.
- Understand what type of behaviour can trigger a reaction.
- Be aware of their colleagues' strengths and weaknesses.
- Understand causes and types of aggression.
- Understand appropriate responses and options.
- Be aware of factors that influence effective communication.
- Demonstrate effective avoidance and deflection techniques.
- Demonstrate effective secure and escort techniques.

METHOD & PROCEDURE

A non-experimental, one group, pre-test post-test research design was used in this study to evaluate the effectiveness of a newly developed training program for nurses working in EDs

PARTICIPANTS

There were 45 effective full time emergency nurses with fractional part-time appointments representing a total of 60 full and part-time staff. To assist with staffing ED, the program was offered during staff time on three separate days with 14 ED nurses attending the first two days and 12 attending the third day (n=40) which represented 66% of all emergency nurses.

Questionnaires were distributed by the ED unit manager to all 60 nurses employed in the ED of a major regional hospital in Victoria, Australia. Thirty (75%) of the 40 nurses who attended the training program completed the pre-test questionnaire two months prior to the commencement of the training program and 22 (55%) RNs completed the post-test questionnaire which was also distributed by the ED unit manager three months following the training program. Pre and post-test questionnaires were identical and participants were requested to complete and voluntarily return un-named questionnaires to the program organiser.

RESULTS

An evaluation questionnaire consisting of 56 questions based on the program's objectives was constructed by the author for a previous study (Deans 2001). Eight items elicited demographic data and nine items elicited information regarding the incidence of physical, verbal and sexual aggression in the ED. Ten items requested information about aggressive behaviour in the ED, eight

items asked questions about how confident participants were in their management of violent behaviour. The final section of the questionnaire identified ED nurses attitudes and thoughts about factors related to violence in the ED. The questionnaire was subjected to split-half reliability and an Alpha score of 0.83 was found.

RESULTS

Twenty four (80%) participants attending the workshop were female with six (20%) male. Age of participants varied with eight (27%) in the 20-29 group, nine (30%) in both the 30-39 and 40-49 group and four (13%) in the 50-59 age group. Twenty of the female and two of the male participants completed both the pre-test and post-test questionnaire. There was also a wide range of participant nursing experience, including RNs, charge nurses and clinical nurse specialists. Participants had spent a mean of five years in their current level of employment. The mean years of employment as an RN was 14 years and seven years was the mean time spent in the ED. Eighteen (60%) of participants had a tertiary qualification.

A series of cross tabulations and Chi-Square tests were conducted on questions related to aggressive behaviours in the ED. An alpha level of 0.05 was used for all tests. Results show the effect of the workshop was statistically significant for assisting participant's knowledge and understanding about the code of practice for managing aggressive situations in the emergency department [χ^2 (1, n=22)=4.18, p=0.04]; and more importantly, they knew what it was [χ^2 (1, n=22)=6.74, p=0.01]. The workshop also was statistically significant for assisting participants to be 'aware of the constraints that physical limitations have on their own ability to respond to an aggressive situation' [χ^2 (1, n=22)=5.88, p=0.05], and to make other staff aware of their own physical limitations [χ^2 (1, n=22)=6.21, p=0.01]. The effect of the workshop was not statistically significant for issues relating to 'team response to aggressive situations' [χ^2 (1, n=22)=0.70, p=0.30] and 'duty of care' [χ^2 (1, n=22)=0.90, p=0.54].

Table 1 shows the incidence of aggressive behaviour experienced by participants at pre-test.

The number of aggressive situations encountered by staff within the past three months was reduced from pre-test (M=8.39, SD=11.3) to post-test (M=4, SD=3.45). While this was not statistically significant [t (df=48)=1.94, p 0.06] it is clinically significant in that results also show the mean scores for effectiveness of the workshop increased from pre to post-test although this result was not statistically significant either [t (df=47)= -1.69, p 0.09]. Participants rated their knowledge [t (df=48)= -4.3, p 0.001] and skills [t (df=48) = -2.74, p 0.006] higher as a result of the workshop.

Table 2 shows that the confidence levels of participants were raised for most areas after undertaking the course. Participants reported increased confidence in dealing with aggressive situations and working as a member of a team in responding to aggressive situations. Participants similarly reported increased confidence in reporting aggressive incidents to their line manager. Finally participants also reported increases in confidence in responding to persons who were fearful, frustrated, or who were intimidating and manipulating.

Table 3 shows that participants had improved in their confidence toward issues relating to aggression in the ED. Important areas that showed increases include feeling 'supported from other staff' and from 'management' following involvement in an aggressive incident. This result was tempered by a reduction in how they perceived 'management as caring for them' and that 'incident reports are only a management tool'. However, there was a reduction in responses to 'debriefing not offered enough in my workplace'. There was also an increase in agreement with the statement 'the work environment could be made safer' by participants post course. Table 3 relates to participants confidence levels pre and post introduction of the course. It shows a general improvement in participants attitude toward aggression related issues in the ED. Participants felt an increase in confidence in areas such as being supported by other staff and from management following involvement in an

Table 1: Incidence of aggression in ED (pre-test)

Type of Violence	Never	Less than once per year	About once per year	Once per month	Once per week
Verbally threatened	0	1 (3%)	12 (40%)	13 (43%)	4 (13%)
Verbally insulted	0	0	11 (36%)	13 (43%)	6 (20%)
Yelled at	0	2 (6%)	6 (20%)	13 (43%)	9 (30%)
Sexually threatened	18 (60%)	9 (30%)	3 (10%)	0	0
Sexually insulted	14 (46%)	7 (23%)	7 (23%)	1 (3%)	1 (3%)
Sexually touched	22 (73%)	5 (16%)	2 (6%)	1 (3%)	0
Physically threatened	3 (10%)	7 (23%)	11 (36%)	9 (30%)	0
Slapped or struck	9 (30%)	16 (53%)	5 (16%)	2 (9%)	0
Hit with an object	20 (66%)	6 (20%)	4 (13%)	0	0

Table 2: Confidence in managing aggressive behaviour

Questions	Test	not	somewhat	very	extremely
I feel confident with dealing with aggressive situations	Pre Post	4 (13%) 1 (4%)	21 (70%) 13 (59%)	4 (13%) 8 (36%)	1 (3%)
I feel confident to be a member of a team response to aggressive situations	Pre Post	4 (13%) 12 (54%)	14 (46%) 10 (45%)	11 (36%)	
I feel confident in communicating with persons who are/becoming aggressive	Pre Post	2 (6%) 1 (4%)	15 (50%) 11 (50%)	12 (40%) 9 (41%)	1 (3%) 1 (4%)
I feel confident in physical restraining persons who are aggressive	Pre Post	15 (50%) 7 (31%)	9 (30%) 10 (45%)	4 (13%) 4 (18%)	2 (6%) 1 (4%)
I feel confident in being able to physically move freely (ie clothing, hair, disabilities)	Pre Post	2 (6%) 5 (22%)	7 (23%) 14 (63%)	13 (43%) 3 (13%)	7 (23%)
I feel confident about reporting an incident to my line manager	Pre Post	1 (3%)	3 (10%) 17 (73%)	14 (46%) 5 (22%)	11 (36%)
I feel confident in responding to someone who is fearful or frustrated	Pre Post	1 (3%) 1 (4%)	10 (33%) 4 (18%)	15 (50%) 17 (77%)	3 (10%)
I feel confident in responding to someone who is intimidating and manipulating	Pre Post	1 (3%) 1 (4%)	18 (60%) 9 (50%)	8 (26%) 12 (54%)	2 (6%)

Table 3: Attitudes toward aggression in ED

Questions	Test	SA	A	D	SD
Aggressive behaviour should only be dealt with by security staff	Pre Post	3 (10%) 3 (13%)	9 (31%) 2 (9%)	16 (55%) 16 (72%)	1 (3%) 1 (4%)
Aggressive persons should not be treated by nurses	Pre Post	15 (17%) 1 (4%)	18 (62%) 15 (68%)	6 (20%) 6 (27%)	
I am cared for by management in my workplace	Pre Post	2 (7%) 2 (9%)	18 (69%) 12 (54%)	3 (11%) 8 (36%)	3 (11%)
The way I respond can contribute to aggressive behaviour	Pre Post	7 (23%) 5 (22%)	14 (46%) 11 (50%)	7 (23%) 5 (52%)	2 (6%) 1 (4%)
The way I communicate can contribute to aggressive behaviour	Pre Post	6 (20%) 5 (22%)	13 (43%) 10 (45%)	10 (33%) 6 (27%)	1 (4%)
Debriefing not offered enough in my workplace	Pre Post	7 (25%) 4 (18%)	13 (46%) 8 (36%)	7 (25%) 9 (40%)	1 (3%) 1 (4%)
I believe that the other staff actively support me following my involvement in an aggressive situation	Pre Post	8 (27%) 2 (9%)	15 (51%) 18 (81%)	5 (17%) 2 (9%)	1 (3%)
I believe my work environment could be made safer	Pre Post	12 (41%) 14 (63%)	15 (51%) 8 (36%)	2 (7%)	
Management of aggressive behaviour not my responsibility as a nurse	Pre Post	7 (23%) 5 (22%)	17 (56%) 14 (63%)	6 (20%) 3 (13%)	
I am aware of my emotional reactions when confronted by an aggressive person	Pre Post	3 (10%) 19 (86%)	25 (83%) 3 (13%)	2 (6%)	
I am aware of my physiological reactions when confronted by an aggressive person	Pre Post	2 (7%) 1 (4%)	25 (86%) 20 (91%)	2 (7%) 1 (4%)	
Nurses can use as much force as is necessary to restrain someone who is aggressive	Pre Post	1 (3%) 1 (5%)	10 (34%) 8 (42%)	16 (55%) 10 (52%)	2 (7%)
I understand that attending to someone who is aggressive is part of my role in ED	Pre Post	3 (10%) 2 (9%)	20 (69%) 17 (77%)	5 (17%) 2 (9%)	1 (3%) 1 (4%)
Incident reports are only a management tool	Pre Post	2 (6%) 1 (5%)	17 (56%) 12 (57%)	10 (33%) 7 (33%)	1 (3%) 1 (4%)
I personally feel safe in my work environment	Pre Post	17 (58%) 17 (77%)	10 (34%) 4 (18%)	2 (7%) 1 (4%)	
I believe that management actively support me following my involvement in an aggressive situation	Pre Post	1 (3%) 2 (9%)	13 (43%) 13 (49%)	11 (39%) 7 (32%)	3 (10%)

aggressive incident. Interestingly, participants felt less confident in management caring for them and the use of incident reports after undertaking the course. Also of note was the perceived improvement in workplace debriefing with the item 'debriefing not offered enough in my workplace' scoring lower post course.

DISCUSSION

There is little doubt that regional ED nurses continue to experience unacceptable levels of workplace violence with all ED nurses in the study reporting that they had experienced verbal aggression. This finding is consistent with findings reported by Lyneham (2000) in her study of New South Wales emergency nurses. Participants had also experienced significant levels of physical and sexual aggression.

Given, that the education program will not reduce the exposure of ED nurses to workplace aggression, results show that with some basic training, they can be more prepared to manage violence, and by so doing may in fact reduce the incidence of aggression by de-escalating potential violent situations. It is reassuring to report that the incidence of aggression was halved in this study. This has largely been achieved by raising the awareness of ED nurses to the nature of the problem, improving their knowledge and skills in managing aggressive behaviour and their attitudes toward potentially violent patients.

It is also a positive result that nurses have an increased confidence about reporting aggressive incidents to line managers. If the reporting behaviour of nurses can be changed from a traditional culture of non-reporting or as a 'part of the job' acceptance as indicated by Jones and Lyneham (2000, p.27), the true nature and extent of the problem may be better understood and more appropriately dealt with by governments and health organisations and agencies. It is essential that the conspiracy of silence in which human service workers are hesitant to acknowledge any difficulties in coping with the day-to-day realities of workplace violence is addressed and minimised.

This result however, needs to be viewed in light of participants reporting that they 'were not cared for by management' and that they 'believed their work environment could be made safer'. What is of most concern is that participants viewed incident reports of violent situations as only a management tool. It is clear there must be a process which permits nurses to report violent behaviour within an environment that is perceived as both supportive and interventionist. Similarly, there remains a need for nurse managers to become more skilled in managing those nurses who have been recipients of violent behaviour. It would also appear that nurses receive most of their support from their peers which is consistent with previous studies (Farrell 2001). Farrell's study reported that nurses' main concerns regarding nurse managers was their failure to implement supportive

structures when incidents arose or to take appropriate action to prevent their recurrence. He concluded, that it would be expected 'all managers take action following major incidents of aggression' (p.30).

This study has a number of limitations. Firstly, the researcher was unable to randomly select a sample from the population of ED nurses and, secondly, the small sample size reduces the generalisation of results to other ED nurses in other settings. Thirdly, the absence of a control group which did not receive the training program makes it problematic to promote the effectiveness of the program. However, the study has generated some findings upon which to make a number of recommendations.

Tertiary education

Nursing curricula in tertiary education programs must systematically include content that prepares nurses to manage both aggressive behaviour and their own negative responses to aggressive behaviour. This may prove to be difficult. A survey of Canadian schools of nursing (Ross, Hoff and Coutu-Wakulczyk 1998) found that although there was a sensitivity to the importance of including content of aggression in nursing, the approach to this content was largely incidental and heavily dependent on individual academic's interests. However, such early preparation can reinforce strategies to best manage aggressive behaviour from future patients and their relatives.

In-service education

In-service and continuing education programs for nurses should also be implemented and evaluated. Staff development programs, using such strategies as role play, videotape playbacks, debriefing sessions and case management, would assist all clinical staff to become aware of how they can contribute to the overall coping strategies used by victims of violence. Courses on self-awareness, assessment, and diagnosis of aggressive or potentially aggressive patients and staff would be beneficial if implemented in addition to promoting a team approach.

Implications for management

Reports from this and other studies demonstrate that emergency nurses frequently experienced workplace violence from patients and frequently failed to report such incidents. There are some important implications for hospital managers, some of which have been suggested by other researchers (Farrell 2001; Lyneham 2000) and are further explored below. To implement the strategies suggested, changes in infrastructure and/or personnel may be required. For example, security or occupational health and safety staff may need to be appointed, professional educational programs may have to be established and policies regarding reporting and responding to violent incidents may need to be instituted or upgraded.

Primary prevention of workplace violence

Preventing, or at least reducing workplace violence in EDs would appear to be a first priority for nursing administrators. Before this can be achieved there is a need by the profession to acknowledge and claim ownership of the psychological and professional injury experienced by its members resulting from workplace violence. Therefore, a professional nursing culture that acknowledges its own contribution to the problem can contribute to individual and professional recovery.

Health agencies could be advised to consider displaying written warnings to potential aggressors in strategic locations in their buildings. These warnings may prohibit workplace violence toward staff and notify potential aggressors that abusive behaviours may result in prosecutions.

Secondary prevention of workplace violence

When workplace violence does occur, all physical, verbal and sexual incidents should be reported and documented. A central register could be maintained in order to identify trends of work-related aggression. Spratlen (1997) suggested that an ombudsman can play a significant role in the continuing problem of aggression in the workplace. The role of an ombudsman acting as an independent objective person would gain the confidence of nurses and thereby facilitate the processing of complaints about workplace violence without the concern of retribution.

Further, there is a need to establish formal and informal debriefing sessions for nurses who have been assaulted. Brayley et al (1994) suggested the establishment of a violence management team to manage patients who exhibit aggressive behaviour in the general hospital.

Tertiary prevention of workplace violence

State and territory occupational health and safety legislation is required to include protection of employees against acts of aggression in their workplace. From a legal perspective, hospitals and other health agencies may have to adopt policies that more vigorously assist nurses to pursue perpetrators of aggression through the legal system. This would significantly increase the visibility of the problem and provide encouragement to other nurse victims. Pursuing legal options may prove to have a symbolic value in raising community awareness that aggression toward nursing staff is unacceptable. Also, by offering legal recourse, remediation for being assaulted may assist in the healing process. It is worth noting that since the completion of this project the hospital utilised as the setting has introduced a zero tolerance policy with notices displayed on the walls of ED that violence is unacceptable and perpetrators will be prosecuted.

CONCLUSION

There is little doubt that because of the nature of ED's and the vulnerability of staff who work within them, there will always be exposure to violent situations. This study has demonstrated that with a single one-day training program

there can be a reduction in violent incidents as well as a concomitant increase in staff confidence. What is urgently required is for funding to be invested into structured training programs at undergraduate, postgraduate and continuing education levels that will prepare nurses to more effectively manage aggressive behaviour. Results have heightened the importance of training nurse managers to provide support to those who have been victims of aggression. Managers should receive comprehensive and focused training in how to support the role of ED nurses in their workplace.

The importance of ongoing research into interventions that reduce the level of or response to workplace aggression has been highlighted by the current study.

The benefits to be reaped from such interventions will more than adequately compensate for those monies lost through sick leave, work cover premiums and reduced quality of care.

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INAPPROPRIATE RESTRAINT PRACTICES IN AUSTRALIAN TEACHING HOSPITALS

Kate Irving, PhD, Bsc (Hons) Nursing, RGN, PhD Graduate, Curtin University of Technology, Perth, Western Australia, Research Fellow, University College, Dublin, Ireland

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Key words: restraint, prevalence, Australia, teaching hospitals

ABSTRACT

The use of restraints in contemporary healthcare represents an ethical problem to nurses and nursing. This paper describes a point prevalence study undertaken to examine the patterns of restraint use in an Australian teaching hospital. The objectives were: to clearly define restraint; establish its prevalence; the reasons for its use; and, to describe staffing levels in relation to restraint rates. Of the 256 patients who were observed, 9.4% were restrained. A third of the patients aged 85 years and over were restrained. The results support a previous Australian study that reported restraint rates of between 8.5% and 18.5% in acute hospitals.

INTRODUCTION

Restraint persists as a behaviour management technique for certain behaviours despite over a decade of research showing its limited efficacy (Strumpf et al 1998) and many damaging side effects, for example, new incontinence, new pressure sores, nosocomial infections, falls, contractures, orthostatic hypotension, premature wish to die and a high in-hospital death rate (Parker and Miles 1997; Morrison 1997; Molasitotis 1995; Macpherson et al 1990; Kasper et al 1996). The current paper aims to give a clear definition of that restraint which is inappropriate, and to investigate its use in an acute teaching hospital.

LITERATURE REVIEW

Few studies on restraint rates in Australian teaching hospitals exist. The studies by Whitehead et al (1997) and Gaebler (1993) are notable exceptions. Furthermore, restraint can be difficult to define and studies have highlighted much disparity in their definition of restraint use and in the identification of restrained patients by registered nurses (Whitehead et al 1997). Several studies limit their definition of restraint to the use of custom made devices (Moss and La Puma 1991; Castle 2000), while another concentrates on the effects of an intervention on a patient's free will (Ewart 1997). These differing definitions make prevalence studies hard to compare. A further definition is aimed at identifying inappropriate restraint use and has influenced the current studies' definition (Powell et al 1989). It focuses on the specific intent with which an intervention is applied. It highlights those interventions that are common and pose significant legal, ethical and professional questions for nursing.

The definition of chemical and physical restraints adapted from the literature for the purposes of the study

was: Any physical treatment or pharmaceutical used with the primary intention of limiting mobility or movement.

For physical restraint, if a lack of mobility was an undesirable constraint of a medical intervention, such as a plaster cast or infusion pump, it was not included as an inappropriate restraint. While a plaster cast does restrain movement, the primary intent of the intervention is bone healing. For chemical restraint, drugs used for anxiety states were not included, unless the anxiety manifested itself in behaviour and a drug was given with the specific intent to prevent this behaviour. There is a thin line between appropriate restraint, when the patient asks for a bedrail to be placed on the bed or when a doctor prescribes a drug to treat an anxiety disorder, and inappropriate restraint where the patient's rights are violated.

Car seatbelts can be considered a restraint, but one would not suggest they were unethical in the same way a straight jacket may be considered unethical. It needs to be clear that there is a mode of restraint that is problematic, and it is this type of restraint that should be addressed in research and practice. Thus, any definition of restraint should facilitate the identification of inappropriate restraint based on intent, not merely count the number of patients who are taken to be restrained according to some pre-specified criteria.

Prevalence of restraint

Whitehead et al (1997) conducted a point prevalence study in four Australian teaching hospitals and found a prevalence of between 8.5-18.5% restraint between the hospitals surveyed. A study by Gaebler (1994) found that 25% of patients have a restraining order subsequent to an incident report. However, Gaebler's study relied on documentation alone, and it is well established that documentation about restraints is frequently non-existent (Whitehead et al 1997; Kow and Hogan 2000).

Generally speaking, the type of restraint described in the studies definition of inappropriate restraint is unacceptable. However, a further circumstance when restraint use is appropriate is when the patient or another member of the public is in 'real or immediate danger'. This is a legal remedy called 'necessity' but it is unlikely that long-term use of restraints to prevent falls will constitute 'immediate danger' (Lambert 1992).

Reasons for restraint

Research shows that the most common reason for using restraint is to protect the person from falling (Reith and Bennett 1998). The justification given for using restraint is to: (a) decrease the risk of falls; (b) prevent the patient interfering with their treatment; and, (c) behavioural phenomena (Strumpf et al 1998). There is evidence to suggest that restraints are ineffective when used for these reasons (Strumpf et al 1998; Lofgren et al 1989).

Problems with restraint

The previous studies found that injurious falls decrease when restraints are removed and that restraints lead to an increase in agitated behaviours. Further reports have identified a number of cases where the use of restraint was a direct cause of death by asphyxiation (The American Food and Drug Association 1992; Paterson et al 1998; Parker and Miles 1997; Miles and Parker 1998; Miles 1996; Anon 1999).

Restraint reduction

Restraint reduction efforts focus on individualised assessment (Strumpf et al 1998), environmental manipulation, policy change, and nurse education programs (Levine et al 1995; Bradley et al 1995). Nurses' knowledge and skills in the care of patients who typically get restrained in acute care settings is reported to be inadequate (Matthiesen et al 1996; Maruschock 1996; Janelli 1995; Bryant and Fernald 1997) and it is likely that this contributes to the resistance to changing practices.

A restraint-reduction effort with no increase in patient incidents reported that restraint-free care did not require extra staff (Dunbar et al 1997). One study found that a higher ratio of registered nurses to nursing assistants was predictive of higher restraint initiation (Sullivan-Marx et al 1999). Similarly, it has also been shown that restrained patients increase dependence on the nurse and therefore require more nursing care (Morse and McHutchion 1991).

AIMS

The aim of the present study was to identify the frequency, duration, type and reasons for inappropriate restraint use in an acute teaching hospital and the patient staff ratios at the time of restraint. Inappropriate restraint here is taken to be any restraint which would be classified thus by the study's definition and which would not meet the legal criteria of 'necessity'.

RESEARCH SETTING

The study was conducted in a 450-bed metropolitan teaching hospital in Australia. Ethical clearance was gained from the university and hospital research ethics committees. The hospital has all major specialties but observations were not carried out in psychiatric, paediatric, intensive care or emergency departments.

METHOD

Data were obtained from nine wards during one day, and 256 patients were observed. Wards were visited by the researcher, in a random order at random times. Each patient under observation was assessed to determine whether they were physically restrained and their medication charts reviewed for psychotropic drugs. Interventions that could have constituted restraint were clarified with the nurse caring for the patient and

crosschecked with the medical and nursing notes and the responsible medical officer. Where patients met the criteria for restraint, the duration of restraint was calculated from the last time the patient was restraint free. Patient demographics and ward staffing levels were collected at the time of observation.

Analysis

Data were managed using statistical package for social science (SPSS) and subjected to descriptive statistics. The period of restraint was tested for variance using mean, median and mode, across the restrained population.

RESULTS

The results showed that on the selected day 24 (9.4%) of the population were restrained according to the study's definition of restraint. The use of restraint increased with age - no patient under 62 years was restrained. All patients who were restrained had a cognitive impairment, either acute, chronic or delirium superimposed on dementia.

ALL WARD POPULATIONS				
Age group	Patients	Restraint	% of patients restrained	Mean period of restraint (days)
< 65	100	1	1	8
65-75	49	3	6.1	13
75-85	78	11	14.1	20.8
> 85	29	9	31	13

The period of restraint ranged between one and 104 days and the mean period was 17.6 days, median, 4.5, mode, 4. In general restraints had been in place for the length of admission.

Modes of restraint

Bedrails were the most frequently used mode (22, 62%) followed by chemical restraint (6, 17%) and restraint vests (3, 9%). Of the restrained patients, (6, 25%) had multiple restraints in place.

The chemical restraints were in all cases prescribed in doses vastly above the recommended dose (British National Formulary 2001). For example, in one case a male patient was prescribed 45 milligrams of haloperidol per day to prevent him attempting to rise from the chair. One female patient was restrained using midazolam to curb her agitated behaviours. However, the numbers are not significant to identify a trend in types of chemical restraint.

Staffing levels and restraint use

The staffing levels at the time of observation were recorded to show, in retrospect, if poor staffing directly corresponded to high restraint use. Table 2 shows the relationship between the percentage of restrained patients aged over 65 years by ward and nurse-to-patient ratios.

The nurse-to-patient ratios varied from three to five patients per nurse and appeared to be unrelated to the percentage of patients restrained. It was apparent that when there was a high proportion of patients over 65 years on the ward, restraint use was high. The wards with the lowest and highest proportion of patients over 65 years were associated with the lowest and highest restraint rates respectively. The rate of restraint was highest when >80% of patients were aged over 65 years, even when the nurse-to-patient ratio was nearer to 4:1 than 5:1. Ward one had no patients aged over 65 years and no restrained patients.

Table 2: Staffing levels, proportion of elderly patients and restraint use

Ward number	% of patients restrained	N : P ratio*	% patients >65
1	0	1 : 4.6	43
2	3	1 : 4.9	40
3	3	1 : 4.3	54
4	3	1 : 3.2	55
5	4	1 : 4.5	52
6	8	1 : 5	66
7	11	1 : 4.6	86
8	18	1 : 4.8	66
9	25	1 : 4.1	88

* Nurse to patient ratio

Origin of restrained patients

The majority of restrained patients came from home (17, 67%), the smallest group from a nursing home (3, 12.5%) and the remainder from hostels. Of the 24 patients who were restrained, 16 were medical (67%) and eight were surgical patients (33%). The rate of restraint was not significantly different between males (46%) and females (54%).

Reason for restraint

The most frequent reason nursing staff gave for using restraint was to prevent falls among patients, with little insight into their lack of mobility (59%). The second most common explanation was to control agitation (21%), next were, to prevent wandering (7%) and, to prevent injury to staff or others (7%). Therapy disruption was given as a reason for restraint in 4% of cases, and in 2% of cases the nurse could not identify why the restraint was in place. In the case of patients who wandered, nurses often said they would be happy to remove restraints if they could offer a safe environment. Eighty-five percent of the nurses questioned during the data collection did not consider bedrails to be a restraint. In five cases of restraint by bedrails (32%) the nurses said they could be removed without any increased danger to the patient. Some bedrail use was not considered 'restraint' by the researcher because it did not satisfy the study definition.

Limitations

Before discussing the results of the study, the limitations should be highlighted. It is possible, as in all point prevalence studies, that the restraint use captured in the study was atypical. Data were collected in February (Australian summer) and it is possible that mid-winter restraint rates would differ. The results should be understood as indicators of restraint rates, which can be considered along with previous and future restraint prevalence studies.

DISCUSSION

The definitions proposed here were adequate for the project and because it was conducted in a clinical setting are also appropriate for clinical nursing. As emphasised in the literature review this definition helped clarify those practices that are of concern by separating them from similar practices which do not pose ethical, legal and profession issues for nursing.

Inappropriate definition of restraint by nurses has led to the use of bed rails as a benign intervention. Bedrails and chemical restraint were the most prevalent restraints. Bedrails have been associated with a number of cases of death by strangulation (Parker and Miles 1997; Miles and Parker 1998). Chemical restraints have been associated with hastening the decline of patients with dementia, contributing paradoxical confusion and toxic confusional states (Shamoian 1988; Patrick 1986; Gerdner and Buckwalter 1994; Cohen-Mansfield 1989).

The prevalence of restraint in the study seems high in the light of research presented in the introduction on its poor efficacy and the harm it has been associated with. The results reported here reaffirm the existing limited available figures on restraint use. The number of patients was small in the >85 year age group but the prevalence of 33% restraint indicates a disquieting figure. Further research should be conducted in this age group, who could be seen as the most vulnerable group to the damaging effects of restraint.

The current research shows that the primary reason for using a restraint was to improve patient safety. The nurses described an unsuitable environment, for example, wandering patients on wards with easy access to stairs, roads and car parks. It is important for hospital administrators to address these environmental problems and ease some of the pressure of adapting nursing techniques to unsuitable environments.

Importantly, restraints are often used for prolonged periods of time, in one case 104 days (17.6 days mean). This indicates that restraints are not a crisis intervention, they are an accepted mode of care, a disconcerting result which indicates they are not being used in accordance with the legal remedy 'necessity'.

The results correspond with previous studies that found increasing age and decreased cognitive ability to be the strongest predictors of restraint use.

The current research did not find higher staffing levels predictive of lower restraint use.

RECOMMENDATIONS

Based on the findings of this research the following recommendations for research and practice are offered:

- 1) A universal definition of inappropriate restraint should be promoted and adopted for nursing research practice and education.
- 2) Hospital environments should be adapted to promote safety for the large numbers of older people at risk of restraint.
- 3) Hospitals should monitor their restraint use in order to examine whether change in practice is taking place.
- 4) Research into alternative modes of care should continue.

CONCLUSION

This study identified a working definition of restraint. The patterns of inappropriate restraint use within the study hospital were described. The rates of inappropriate restraint use are high and should be a cause for concern. Increasing staffing levels may not be effective in reducing restraint but environmental adaptation would seem to be important. Inappropriate restraint use should be addressed and while studies have shown it can be complex to eliminate (Lamb et al 1999; Gilbert and Counsell 1999; Chalifour 1997), institutions should show a decreasing trend in the use of inappropriate restraint. Recommendations have been suggested as to what research is necessary to reduce and monitor restraint use.

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THE COURAGE TO CARE: NURSES FACING THE MORAL EXTREME

Ellen Ben Sefer, BS, MN, PhD, is lecturer, Faculty of Nursing, University of Technology, Sydney, Australia

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Key words: care, history, second world war, moral behaviour

ABSTRACT

Many European nurses were caught up in the horror of what happened to Jewish people during the Second World War, trapped in ghettos and concentration camps. The advanced age of the nurses, however, decreases the number of firsthand accounts available. This paper reports on the experience of nurses in one camp, Westerbork, in the Netherlands, highlighting their work and relating their stories. Facing extreme suffering, they chose to care about others when it would have been easier to distance themselves. Until recently, historians' interest in medical practices in the transit and concentration camps has centered on medicine and sanitation. Utilisation of a nursing framework allows new material that has previously been overlooked to provide a broader understanding of the context of health care within the camps. Westerbork is an ideal camp to study since it had a genuine hospital with medicines and equipment available and a number of wards that provided care. Data collection was through oral interviews, archival documents and literature. The conclusion is that these nurses provide powerful role models of care that are as significant today as they were then.

INTRODUCTION

The purpose of this research was to develop an understanding of nursing within the transit and concentration camp system by focusing on one transit camp in the Netherlands, Westerbork, which had a large hospital of over 1000 beds. All care offered to the inmates of the camp was provided by staff who were also inmates, that is, prisoners providing care for other prisoners within the confines of the camp. History provides ample evidence of nurses who were involved in wars, caring for soldiers, supporting civilians and often imprisoned for years as occurred during the Second World War. Other nurses were caught up in the horror of what happened to Jewish people during the Second World War, trapped in ghettos, transit camps and concentration camps.

BACKGROUND: LITERATURE REVIEW

An extensive literature review was undertaken, including of standard works such as Martin Gilbert's *The Holocaust* and Leni Yahil's *The Holocaust: The fate of European Jewry, 1932-1945*. Since the site of the camp under study was the Netherlands, literature pertinent to that country was also reviewed. Examples of such literature include Bob Moore's *Victims and survivors: The Nazi persecution of the Jews in the Netherlands 1940-1945* and Dan Michman's *Belgium and the Holocaust: Jews, Belgians, Germans* (pp.3-38), which provided an insight into the historiography of the Netherlands pre-war, and policy and events that took place during the occupation of the Netherlands giving important comparisons to other occupied western nations.

A review of literature explicit to Westerbork was also explored. While little literature exists, publications include the diary of Phillip Mechanicus who began his diary while hospitalised in Westerbork. Mechanicus was an astute observer and provides an important patient perspective on care delivered in the hospital. Other important sources of literature include the collected letters

of Etty Hillesum who worked as a social worker in the camp, providing information on all aspects of camp life including the hospital. Neither of these authors survived, but their work has endured and can be used in conjunction with the other sources of information already discussed.

A collection of drawings of the camp created by an inmate who did not survive has been published (Kok 1990). By coincidence, he was the husband of one of the nurses involved in this study and the collection includes her portrait and those of other nurses and activities such as 'housecalls' made in the camp barracks. Such material enriches the understanding of the overall experience of life in the camp and assists in appreciating the complexity of piecing together information to create a coherent picture.

Finally, literature that focuses on the efforts of doctors and nurses in various camps was useful in terms of comparison of various camp experiences. A new phenomenon in Holocaust historiography and one of the best examples is Roger Ritvo and Diane Plotkin's *Sisters in sorrow*. No other published research to date has focused on nursing, medicine, or health and care in Westerbork. A clear gap in this area of research makes Westerbork an ideal camp experience to utilise as it had such a large hospital with a considerably large staff making it likely that some survivors could be located.

METHODOLOGY: HISTORIOGRAPHY, ORAL HISTORY, INTERVIEWS, RECRUITMENT WESTERBORK HISTORIOGRAPHY

To appreciate the nurses' experiences, it is helpful to have some understanding of the historiography and evolution of Westerbork from a refugee centre to a transit camp that was to become a funnel for deportation to the camps in Poland where so few survived.

The prehistory of Westerbork transit camp began prior to the German invasion in 1940. As refugee Jews fled Germany, Austria and Czechoslovakia for the safety of the Netherlands, the Dutch government took measures to prevent further refugees arriving in its urban centres. Westerbork was not a German invention, but a Dutch creation, and the camp was planned well before the outbreak of war. On 13 February 1939, a proposal by the Ministry of the Interior was accepted to establish a camp for German refugees. The funding required the construction of the camp to be repaid by the Relief Committee for Jewish Refugees (Presser 1969). Shlomo Samson recalled the establishment of the camp in the winter of 1939-1940 approximately seven kilometres from the village of Westerbork. Remote, distant from the crowded cities of the western part of the country, near the German border, it remains a fairly isolated place in the Dutch countryside.

In his post-war report, Hans Ottenstein recollects the camp as being a depressing place in every context of the word. Eye irritations were common due to continual wind whipping sand and dust around the campsite:

'It stormed almost the whole year and the wind swept the sand and dirt from the heath, so that everything became black or gray. When it rained the roads turned into mud puddles. In the summer the plague of flies was a danger, especially for the babies who could not defend themselves' (The Ottenstein Report 1946).

The refugee Jews were not given permanent residency status and were interned in Westerbork. They were meant to remain in the camp until a country that would admit them would grant a visa. Unfortunately, no such country was located.

The status of the camp was to change radically on 1 July 1942, when it officially became 'Police Transit Camp Westerbork' and watchtowers and a two-meter-high fence were erected around the camp. This was followed by the arrival of Dutch police as guards. The round-ups of the Dutch Jewish community began in July 1942.

On first inspection, Westerbork seemed to mimic a town; it had an administration like a civil administration but their chief function was to select the people who would be transported on the weekly trains to the Polish camps where history records few survived. Those inmates who remained in the camp for any length of time were segregated by sex and placed in barracks of 1000 people. The camp had a police department, social services, a post office, a school, a crèche, and importantly, a hospital where medicines arrived on a regular basis to be used by a staff of 1700 qualified inmate doctors, nurses and other health professionals. Wards such as maternity, surgery, paediatrics, medical and an operating theatre existed.

Oral history as historiography: Benefits and disadvantages

The use of narratives is central to work such as this and can provide a rich source of information. Johnson (1982) concluded that the use of oral history as a methodology provides a vehicle that can 'deprofessionalise' history. That is, its use can provide a path for people to relate historical events in their own words; a viewpoint from 'bottom up' rather than 'top down'. In this respect, it differs from traditional historiography. Vansina (1985) distinguished different types of oral testimony including eyewitness accounts and rumours. Both were explored in this project.

Holocaust history is problematic in terms of oral recollections and validation. Validation can be attempted through archival documentation including camp documents such as orders issued by the commandants, circulars, as well as periodicals, public records, and eyewitness accounts, including letters and diaries. However, it must be acknowledged that in some instances, no documentation exists and even eyewitness accounts can contain conflicting information. An example of this concerns the performance of abortions in Westerbork. No surgical register for the hospital has ever been found that would provide documentation of the procedure. Each nurse interviewed in the course of this project confirmed that abortions took place, but in each nurse's experience,

the procedure differed from a standard dilation and curettage in the hospital operating theatre to secret abortions that took place in the women's barracks, to women self-aborting. Consequently, there is no way of ascertaining the number of women who chose to abort, nor their reasons.

The history of the period is coloured by grief and loss; pervading sadness may affect the memories that survivors are willing to share. Survivors may find some recollections too painful to relate during an interview with a relative stranger. Others have repressed memories, too painful to bring to the surface again. Despite these limitations, eyewitness accounts provide a rich source of information for researchers. In some instances, the accounts may be the only available source of information since no archival document exists for several possible reasons. These include the bombing of buildings during the war that may have destroyed documents, the deliberate destruction of documents, and non-existent documentation since the use of names may have endangered lives.

It can be counterproductive to compare survivor memories; each person's memories are unique. Circumstances changed for each survivor, however their narratives can be utilised to weave a fabric so that a picture emerges. This re-telling of their stories is important so the world does not forget and also to help the world remember. David Ben-Gurion observed that this re-telling and the remembrance is both a form of reawakening and an opportunity for learning (Clendinnen 2000). Therefore, it is important to acknowledge that the re-telling may be as important to the survivor as it is to the researcher; not only are those who did not survive remembered, but it allows the survivor to become someone other than the victim, that is, the history teacher. As such, the experience may be therapeutic for some survivors.

Tsevtan Todorov (1996) remarked that memory cannot necessarily be relied upon to completely recall past events, but utilised to reconstruct elements that are meaningful to our contemporary society. The act of reconstruction and bringing the details to light is an essential factor in attaining justice. Justice is built from a mingling of truth and knowledge to recognise good and positive acts. Each of us needs to acknowledge and recognise simple acts of human dignity, caring and kindness to reaffirm their importance not only socially but also in the context of history. Such recognition serves as a catalyst to others and helps individuals to recognise their own capacity to be involved in such acts.

Recruitment of nurses for the project and ethical considerations

It was difficult to locate nurse survivors willing to speak about their experiences for many reasons. Their increasing age decreases the number of firsthand accounts that can be obtained. Compounding this is the emotional grief surrounding this era of history. Others do not wish to speak about the past, having found that the best way of coping is not to think about their experiences.

Nevertheless, oral history through interviews and eyewitness accounts continues to be one of the best methods of allowing contemporary nurses to appreciate the contribution and experiences of their predecessors who had the courage to care.

Two pertinent archives were contacted to determine whether any relevant documents, memoirs or memorabilia had been donated to the archive. Original film of life in the camp including the hospital as well as a large number of photographs are contained both in the camp archives, located in the grounds of the camp, and at The Nederlands Instituut voor Oorlogdocumentatie (NIOD, The Netherlands Institute for War Documentation).

Participants in this research were located through several means. Names of nurse survivors were located through the archives. Advertisements appeared in newspapers and contacts were made with the local Dutch Jewish community and survivor organisations to assist with the task of locating others. Six nurses were located who were willing to take part in this study. In other circumstances, this might be considered a small number, however the history of that period and the deliberate destruction of millions of people make it difficult to find large numbers of survivors for research purposes.

In the Netherlands, approximately 100,000 people were sent to the Polish camps, mostly via Westerbork. Less than 1300 returned. It is not known how many of the survivors were nurses, but documentation indicates that many nurses elected to go with their patients to their ultimate deaths, refusing to leave them, and so they died as well (Gilbert, p.526-530).

This is clearly evident in the account of the round-up of mental patients at the psychiatric institution, Het Appeldorn Bos. In accounts of this incident in January 1943, rows of patients were loaded on top of each other in trucks. Fifty nurses accompanied their patients. The nurses had been promised they could return to the Netherlands after accompanying their patients. The train arrived in Auschwitz-Birkenau several days later and eyewitnesses recounted that the nurses moved among their patients calming them, offering medicine from their bags. The accounts include the reaction of the SS (Schutzstaffel - the military unit of the Nazi party which served as Hitler's bodyguards and as a special police force) who are reported to have watched with a respect seldom shown to bewildered arrivals. But on the selection platform the nurses were sent with their patients to the gas chambers. None of these nurses survived.

Such incidents clearly highlight the difficulty in recruiting large numbers of nurses for this project. The majority of Jewish survivors in the Netherlands were never in Westerbork and survived through hiding.

Once located, contact was initiated by letter as a means of introduction and to allow the various nurses to develop some understanding of the information that would be sought. The letter stipulated that the author would undertake travel to the Netherlands to meet personally

with each one and conduct an interview at a place of their choice. All participants subsequently chose to be interviewed in their homes. During the course of the correspondence, further information was provided and in one instance, one of the nurses duplicated correspondence that had been written in the camp to highlight some of the incidents described.

At the interview, the purpose was again explained and translators offered for anyone who felt their English would be inadequate. A release form was prepared that explained the project and included a section that allowed participants to choose whether or not their names or pseudonyms would be used in publications. All of them were allowed to choose whether or not their interviews could be tape-recorded and it was explained that the interview could stop at any time they wished. Likewise, they could choose not to answer any question. Finally, it was ascertained that all the participants had reliable counselling support available should the sensitive nature of the interview content create any distressing anxiety, a paradoxical situation considering the underpinning of the research was focused on the concept of caring.

Interviews took place at a time designated by each nurse in their own homes, by their own choice. The interview began with asking each nurse to tell the basic story of his or her life and went on to focus on their war experiences. Occasionally, it was necessary to ask for clarification, pose a specific question, or prompt a response. Experienced interviewers with survivors generally concur that interrupting the flow of the narrative should be avoided as much as possible. The longer the nurses spoke, the more clarity they had in their recollections and interruptions can break that flow of thought.

Paul Bartrop (2000) examined the dilemma of utilising survivor accounts in reconstructing events to better understand the Holocaust. He observed that written accounts by survivors were not always consistent with those recorded by experienced writers, but the survivor accounts are a chronicle of events they personally experienced or witnessed, (p.36). Furthermore, there is often only one survivor of an entire community that can provide information. Consequently, while effort should be made to verify survivor accounts, it may not be possible.

Nurses also utilise oral history in reconstructing events about a patient's health. In their daily practices, nurses conduct interviews, ask personal questions and utilise small bits of information to paint a larger picture of the individual. Thus, the use of oral history is both a familiar tool to nurses and relevant to practice. It should be acknowledged that competent nurses may have developed excellent skills at the interview process, having experience and insight in the exploration of a painful past in their clients. Therefore, they may approach the interview process with far more confidence and insight than the traditional historian.

Another issue in utilising oral history through interviews may be the contradictory information provided

by survivors. In some instances, the same question evoked different responses from the participants. The general conclusion that could be made from several of these questions was that each answer was correct in that individual's experience. Each individual had a different experience with regard to a phenomenon and answered the question according to that experience.

The influence of media and other literature on the survivors' recollection can affect memories. Media reports concerning life in Westerbork may colour or influence the memory of some of the recollections about the camp. Finally, it must be acknowledged that several of the survivors knew each other. They may have discussed the interviews and questions together and have tailored their responses accordingly, although they denied doing so.

Despite the problems and drawbacks associated with oral history, it provides the most personal, natural means of understanding historical experiences in Westerbork with particular emphasis on those issues that relate to health and the practice of nursing within the camp hospital.

The nurses' stories

Trudel van Reemst de Vries has a number of memories of her time in the hospital, both as a patient and as a nurse. Born in Germany, her family moved to the Netherlands when she was a child where she eventually became a nurse in Rotterdam. She volunteered as a nurse during the Spanish Civil War and after the occupation of the Netherlands, became active in the resistance. In November 1942, in her late 20s, she was arrested, jailed and sent to Westerbork. She was one of the few inmates to eventually escape the camp with the aid of her resistance contacts. Trudel recalls being hospitalised with a kidney infection after her arrival and her subsequent treatment which she considered to be 'quite good'. She had the feeling that despite her circumstances, she was among friends.

Upon her recovery, she went to work in one of the large barracks that housed older people but within a short time, she was sent to work in the maternity section of the hospital. In hindsight, Trudel believes the most effective care she provided for her patients was to try to instill a sense of hope in them. Unaware of the fate that would await most of them, she encouraged them to get well, telling them they needed to be strong to be able to survive in the labour camps. She encouraged mothers who had no breast milk, primarily due to malnutrition, to allow their infants to be fed by other mothers, hoping to ensure their babies' survival and health.

During that time, Trudel was summoned to a small room with another nurse. They were confronted with an astonishing sight; a tiny infant wrapped in towels that had been born in another concentration camp. Michael had been born prematurely and sent along with his mother and other prisoners to Westerbork. The Nazi commandant, Gemmeker, took an interest in the baby and ordered an incubator and a paediatric consult. Together with the other nurse, Trudel cared for the infant, feeding him through naso-gastric tubes, interpreting the commandant's

continued interest in the child as a sign of hope. The two nurses clung to that hope, pouring their attention on the child, delighting in his progress as he learned to drink from a bottle. Michael's mother had already been transported to Poland and the nurses became surrogate mothers to the boy. When Michael weighed five and a half pounds, he was transferred to a cradle from the incubator. Trudel believed with all her heart that she had accomplished something good and positive, that there was hope for all of them. She was devastated when Michael, at six pounds, was sent on a transport to Poland.

Trudel lives in Amsterdam today. She retired a number of years ago but has taken part in interviews for books and a film about her life, patiently explaining her experiences and their import on her life. One of those has been a lifelong dread of hearing babies cry, including her own children when they were small. The sound immediately conjures up images of all the babies she cared for and the knowledge that Michael and the vast majority of the inmates of Westerbork transported to Poland did not survive.

Similar in age to Trudel, **Bob Cahen** was one of the earliest residents of Westerbork and when the opportunity arose to work in the hospital, he volunteered and although he had not trained as a nurse he did have advanced knowledge of first aid and thought it would be useful in the men's medical wards.

He thought initially that working in the hospital might afford some protection for his family in the camp from transport. Bob bitterly recalled a number of incidents including saving one man from an attempted suicide, certain he had saved the man's life. He was crushed when he saw the same man being transported to Poland shortly afterwards.

The most touching story he recalled was of a six-year-old child he called Gaby. A couple who were to be sent to Poland arrived in Westerbork carrying their son in a box. On closer inspection, Bob realised the box was a kind of bed made so their son, who had hydrocephalus, could be carried comfortably. The child was admitted to Bob's ward where he located a quiet spot for the boy. Gaby was sweet and loved to laugh, especially when spoken to by Bob and he responded when stroked gently. Bob spent as much time as he could with the boy but several days later, Bob carried Gaby to the train together with his parents, although he did not recall if they were sent to Sobibor or Auschwitz. Irrespective of Gaby's destination, Bob harbours no illusions about his fate. At the time, he cleared a small space so the child could rest on his parent's laps. Sixty-eight people were loaded into the car, the door closed and sealed. Bob recalled, that at the time, he prayed the jolt of the switches would be so heavy that Gaby would break his neck to spare him further suffering. In his reflections, recalling those terrible years, Cahen observed that:

My whole life after has been influenced. When I applied as an attendant I did this exclusively in order to safe (sic) the life of my mother and myself. I did not know anything about nursing and less of the human relations

factor. It was but a short time before I realised that in every bed was a human being, with a story, a tragedy, with trouble for himself and his family. In the beginning I wished to close my ears for all those sad stories. But I was unable to do so. I came to know that the person who laid there so helplessly and the only one he could trust was his attendant. I realised the hopeless situation in which he was. The feeling of impotence to do something about it. When a really sick person had to be prepared for transport, had to say goodbye to him, speak to him in an encouraging way, whilst knowing how desperate his situation was, one cried internally because this could not be showed.

Bob Cahen was sent to Auschwitz as a prisoner. At the end of the war, he returned to the Netherlands and studied engineering. As he admitted, he suffered many of the symptoms of post traumatic stress disorder including nightmares and flashbacks making life difficult for him for many years. He commented that no one understood what he was experiencing, that it took health care workers years to appreciate the enormity of post traumatic stress.

In his retirement, Bob spends his time accompanying school children on visits to Westerbork, explaining in a personal way the experiences he underwent. His apartment in The Hague contains many drawings sent to him by appreciative children as mementoes to him.

Jeanne Van den Berg Van Cleeff arrived in Westerbork in September 1942. She was in her 20s and arrived with her parents who both died in Sobibor. During that time, she worked as a circulating nurse in the operating theatre and in the recovery area. Jeanne firmly believes that the most important care that she was able to deliver to her patients was the provision of hope. In the interview Jeanne stated that hope was 'something we had ourselves, so we gave it to other people'. Not only did she seek to provide hope that patients would recover, but that they had a future to look forward to.

This belief was supported by open-ended questions to patients, which included their plans for after the war. Open-ended questioning of this type remains a useful tool, not only for engaging patients and eliciting information but also for the establishment of a helpful relationship, which can bring forth rich data (Minichiello et al 1990).

Jeanne's recollections illustrate several other important elements of caring. She commented that:

It sounds silly I know, but whenever I meet with other survivors that I knew in the camps one of the first things we say is: 'Do you remember laughing about...?'

Jeanne again provided distinct models of behaviours associated with caring practices. She remains an optimist and claimed she never lost the ability to laugh or her sense of humour, a factor that has been more recently examined by researchers as important to survival.

In addition to the behaviours Jeanne considered examples of caring, she mentioned incidents in passing, as if they had little consequence. These involved offering her

own blood for transfusion despite everyone's weakened state. This practice was confirmed by Bob Cahen who recalled that after a surgical procedure a transfusion might be necessary and the only possibility of acquiring blood was from the inmates. If family members did not make acceptable candidates because of their own deteriorated health, the nurses often volunteered to give their own blood. Their reward was a cup of ersatz coffee and a few hours rest.

Jeanne was sent to Bergen-Belsen for several months, where she continued nursing others, even without the benefit of more than water as a medicine. She related that 'just being with people' sitting and listening, was all the care she could provide, an example of the therapeutic power of presencing. Jeanne had not had a great deal of training before entering Westerbork, yet she mastered the skills necessary for the position of circulating nurse. What is more apparent is that she understood the interpersonal skills necessary to good nursing. Like many others, she still finds it difficult to discuss some aspects of her war experiences, especially with her own children and grandchildren, but remains committed to telling her story in the hope that others will learn from her experience.

DISCUSSION: THE COURAGE TO CARE; HOPE, OPTIMISM AND THE BELIEF IN THE HUMAN SPIRIT

Caring is an act that occurs between people without justification, ideology, or asking whether or not the recipient is worthy. In nursing, caring is a powerful relationship between the nurse and the patient for the patient's benefit. Benefit is derived by the carer as well, and cannot be considered an altruistic act the carer provides without perceiving the satisfaction or pleasure derived by the carer from its successful completion.

Despite the temptation to simplify the act of caring, it is this relationship and interactions that define caring behaviour. According to Todorov (1996), the essence of a human being is found in caring behaviour that will endure as long as the human race exists. In a society that celebrates the material, caring is the antithesis because it highlights the importance of interdependence between individuals and acknowledges the fragile nature of human life. Human vulnerability is the underpinning of a caring society.

To learn the skill of caring, Sacks (1997) believes one must observe it in action, much as one learns any craft, from an expert. Such practices can be encouraged in health care settings. Caring, like any other skill mastery, requires practice. It is for this reason, among others, expert nurses in clinical practice, not only supervise and demonstrate their advanced skills in physical care but also demonstrate the caring imperative and interpersonal skills involved in its provision.

While professional, social, and ideological factors influence the behaviour of individuals, ultimately a

culture of caring in which these practices hold value strongly encourages the individual to continue to exhibit such behaviours and practices. Another method of enabling nurses to appreciate and learn the skill of caring is through the recollection of nurses' experiences. A traditional means of conveying lessons to nurses, the lessons of care can also be derived from nurses who cared under extremely uncaring circumstances.

CONCLUSIONS, LIMITATIONS AND IMPLICATIONS

There are obvious limitations to this type of research. However, Leydesdorff (1992) observed that it is not the function of the oral historian to provide evidence such as that required in a court of law. Rather, it is an exploration of social history and an investigation of events of daily life within a particular context. Problematic issues in the use of oral history include the faulty memory of survivors, all of whom may be ageing. Those interviewed in this study claimed during the course of these interviews that their memories may be faulty. Several refused to answer questions on the basis of memory; stating they were either unable to recall clearly or fearful of providing inaccurate information.

When one is confronted with profound suffering and trauma, often nurses are asked the question 'why?' In some instances that question can never be satisfactorily answered, but by asking what can be learned from this experience, it is apparent lessons can be derived. In the case of these nurses' experiences, contemporary nurses learn a great deal about the importance of caring and the manner in which the recipients perceive it.

Caring is the heart and soul of nursing practice, quite distinct from the concept of curing. It remains the universal feature of nursing with multiple interpretations. Theory is derived from practice and transmitted through a culture of nursing from one generation to the next, by oral as well as written methods. This practice continues to be transmitted through a culture that places value on caring as unique and a form of coping. Consequently, it is imperative for nurses to have an understanding of nursing practices in the past as a means of appreciating caring practices in the present. This supports the principle of using history as an important perspective of nursing practice and as a vital tool for contemporary practitioners to learn from their predecessors. Even more importantly, the meaning of care and determination of caring practices, while vital to professional nursing, may be important to society as a whole. Increasing reliance on technology creates a distance between human beings. The meaning of care and its interpretations holds import for human civilisation.

The historical examples indicate that the nurses' accounts centered on the important notion of caring for others, providing role models for the present and future of nursing.

Often, nurses feel they cannot influence situations and outcomes for patients or for themselves. These nurses provide examples of how to comport oneself in the face of

fear for their own survival. In a world that has suffered the trauma of September 11, the Bali bombings and other tragic incidents, it would seem likely that nurses who have been involved in the rescue of victims and comfort of survivors possess the power to influence the manner in which we reflect back on those events at the deepest, personal level. Like their role models from the past, there is no doubt they too, have the courage to care.

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URINARY TRACT INFECTION IN CLIENTS WITH SPINAL CORD INJURY WHO USE INTERMITTENT CLEAN SELF CATHETERISATION

Melissa T. Moy, BNurs, DipAppSci, is a Clinical Nurse, Spinal Outreach Team, Queensland Spinal Cord Injury Service, Princess Alexandra Hospital, Queensland, Australia

Delena Amsters, MPhy, BPhy, Research Officer, Spinal Outreach Team, Queensland Spinal Cord Injury Service, Princess Alexandra Hospital, Queensland, Australia

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ABSTRACT

Urinary tract infection (UTI) was identified as a significant issue for people with spinal cord injury (SCI) performing intermittent clean self-catheterisation (ICSC) in the community.

A review of the literature was undertaken to establish the major risk factors of UTI and how these risks could be reduced in practice. The majority of authors recommended the use of a clean catheterisation technique in the community. The maintenance of appropriate bladder volumes, low residuals and regular emptying intervals appear to be of paramount importance for minimising risk of UTI for this client group.

INTRODUCTION

People with SCI can experience both neurogenic bladder and sphincter dysfunction resulting in an inability to effectively store and excrete urine. The management of the neurogenic bladder by ICSC is one of the preferred methods as it allows for regular emptying at manageable intervals therefore maintaining a low-pressure environment (Giannantoni et al 1998; Prieto-Fingerhut et al 1997). It is also often more socially acceptable for the client than visually obvious continence management systems. Clean intermittent catheterisation gained prominence through the work of Lapedes et al (1972). Since that time ICSC has become the method of choice for bladder management for clients with paraplegia and low-level tetraplegia, provided they have sufficient hand function to perform the technique (Gallien et al 1998; Selzman and Hampel 1993). The technique of ICSC and catheter management is initially taught during primary rehabilitation and may be reviewed by many different health workers in the community, subsequent to discharge.

The Spinal Outreach Team, Queensland Spinal Cord Injury Service, Princess Alexandra Hospital, Queensland, Australia, provides a consultancy service that assists clients, their carers and other health care services in the delivery of effective and appropriate care for people with SCI across Queensland. A review of service statistics revealed that bladder management problems made up 25% of the referrals to the team's clinical nurse - with UTI being the major presenting problem. This prompted a review of the literature to establish the causes of infection, so that interventions provided by the Spinal Outreach Team, would be evidence based towards the reduction of UTI.

Scope of the Problem

Any loss of normal bladder function will result in an increased risk of UTI (Stover et al 1989). UTI is typically defined as bacteriuria of 10^5 colonies, which may or may not be accompanied by microbial invasion of the tissues (NIDRR 1992). Stover et al (1989) reported that two thirds of patients using ICSC have some form of chronic bacteriuria. Cardenas and Hooton (1995) reported, from the Model Spinal Cord Injury Care System, that UTI was the most frequent medical complication following spinal cord injury. Whilst ICSC is widely accepted as reducing the incidence of UTI when compared to methods such as indwelling catheterisation (Cardenas and Hooton 1995; De Ruz et al 2000; Furuhashi et al 1988; Gallien et al 1998; Nygaard and Kreder 1996; Selzman and Hampel 1993; National Institute of Disability and Rehabilitation Research 1992; Stover et al 1989); the rate of UTI is clearly indicated throughout the literature as still significantly high. The incidence of UTI has been reported as between 20-53% in people with spinal cord injury using ICSC (Whiteneck et al 1992; Cardenas and Mayo 1987). Recurrent UTI can lead to complications such as bladder and renal calculi, pyelonephritis, vesicoureteral reflux and renal failure (Shekelle et al 1999).

Risk factors associated with UTI can be defined as modifiable or non-modifiable. There is limited evidence in the literature to support a link between the non-modifiable factors such as gender, level of injury and time since injury (Shekelle et al 1999). It is those risk factors amenable to intervention, which are the focus of this paper. These factors include bladder distension, timing of emptying, bladder residuals and technique of catheterisation.

Bladder distension as a source of infection

In 1953, Mehrotra observed the slowing of blood flow in the bladder walls of rats following the distension of the bladder. In 1968 Schwartz, through his study of dogs, proved that bacteria was able to invade the urinary system from the gastrointestinal system when he introduced labelled *E.coli* into the rectum. Lapidès et al (1965) acknowledged the studies by both Mehrotra (1953) and Schwartz (1968) and applied them to their own clinical observations. They presented a theory of bladder distension contributing to UTI at the Second International Symposium on Pyelonephritis in 1964.

Lapidès et al (1968) studied 112 women with recurrent UTI and found 60% to have a history of large voiding volumes (500-1100ml) and infrequent voiding patterns (5-10 hours). No other abnormalities were detected. After instilling regular voiding regimes, only nine returned with a UTI and these had not adhered to the regime. Lapidès et al (1972) maintained that ischemic bladder tissue caused by an over distension of the bladder could allow bacterial invasion from the client's own gastrointestinal tract, thereby contributing to UTI. This is a theme subsequently repeated in the literature (Bennett et al 1997; Diokno et al 1983; Giannantoni et al 1998; Nygaard and Kreder 1996;

Rainville 1994; Selzman and Hampel 1993; Shekelle et al 1999; Wyndaele and Maes 1990). Chua et al (1996) reinforced that maintaining a low-pressure bladder should be one of the aims of effective bladder management in people with SCI. The study by Bakke and Vollset (1993) into risk factors of bacteriuria showed a relationship between high mean catheterisation volumes and UTI in 302 women using ICSC. A subsequent study indicated that the mean volume of 170 patients with UTI was 432ml, compared to mean volumes of 353ml in a second group of patients who were not seen to have associated infections (Bakke et al 1997).

In 1992, at the Urinary Tract Infection Consensus Conference held by the National Institute on Disability and Rehabilitation Research (NIDRR), professionals within fields of disability and rehabilitation, including researchers, clinicians and consumers, came together to form a consensus on the best practises for prevention and treatment of UTI. From this conference it was concluded that the risk factors for UTI included, over-distension of the bladder, vesicoureteral reflux, high-pressure voiding, large post-void residuals, presence of stones in the urinary tract and outlet obstruction. These conclusions further emphasise the importance of maintaining low bladder volumes and preventing high-pressure voiding (NIDRR 1992).

Some authors also discussed fluid intake as a way to manage appropriate bladder volumes. The recommendation of a fluid intake of 1500-2000mls a day is well supported for the prevention of over distension of the bladder (Chua et al 1996; Perrouin-Verbe et al 1995; Wyndaele et al 1980). Chua et al (1996) indicated that bladder volumes should not exceed 400mls.

Bladder residuals as a source of infection

Hinman (1977) endeavoured to find a mathematical relationship between the frequency of catheterisation and residual volumes. Through the use of the modified phenolsulfonphthalein test it was found that an unattainable volume of urine was left behind after catheterisation which was higher than the volume left after normal voiding. Hinman (1977) wrote of a permissible residual volume, which is the amount of urine left behind after catheterisation that maintains a constant bacteriuria level. He proposed that the higher the residual left after catheterisation the greater the frequency of catheterisation required during the day to reduce the risk of UTI.

High residual volumes are noted anecdotally throughout the literature as a significant risk factor for UTI (Chua et al 1996; Giannantoni et al 1998; Nygaard and Kreder 1996; Selzman and Hampel 1993; Shekelle et al 1999; NIDRR 1992; Stover et al 1989; Wu and Nanninga 1990). Merritt (1981) conducted a study of people with SCI to compare residual urine volumes and the incidence of UTI. This study showed a positive association between higher residuals and UTI rate.

Safe emptying intervals

A safe emptying interval is defined as the time it takes for bacterial concentrations to return to original levels after the bladder has been emptied. Failure to catheterise once the safe emptying interval has been reached will result in increasing bacterial concentrations and an increased chance of invasion of the bladder tissue (Wu and Nanninga 1990; Hinman 1977).

The consensus by NIDRR also outlined the importance of catheterisation frequency. The issue was raised that people who are unable to perform self-catheterisation and rely on others to perform this task are at a greater risk of developing UTI, primarily due to the inability to adhere to catheterisation schedules (NIDRR 1992). Cardenas and Mayo (1987) found this to be the case, whereby subjects who were catheterised by others had the highest rate of infection at one year post discharge. Bakke and Vollset (1993; 1997) showed an association between low frequency of catheterisation and UTI.

Several authors have recommended catheterisation schedules ranging between four and seven times per day (Chua et al 1996; Perrouin-Verbe et al 1995; Wyndaele and Maes 1990). Other authors have recommended more precise catheterisation schedules of every four to six hours (Prieto-Fingerhut et al 1997; Wu and Nanninga 1990).

Hinman (1977), through his mathematical relationship between residuals and frequency of catheterisation showed that increasing the frequency of catheterisation was more effective in the reduction of bacteriuria than increasing urinary output. This further reinforces the importance of frequent catheterisation not only in reducing the risk of UTI, but also in the treatment of acute incidents of infection.

Clean versus sterile technique

Lapides et al (1972), asserted that a clean technique rather than a sterile technique was sufficient to minimise the risk of UTI. They also suggested that organisms introduced by the catheter; would be eliminated by the patient through their normal defence mechanisms. Sterile intermittent catheterisation can be awkward and impractical outside the hospital environment. A clean technique is more practical for routine life at home. Moore et al (1993) in a randomised crossover trial showed no significant difference between sterile and clean catheterisation techniques. Clean catheterisation is advocated for use in the community by the majority of authors, but the method of cleaning has not been reported as significantly impacting on UTI (Giannantoni et al 1998; Perrouin-Verbe et al 1995; Rainville 1994; Sutton et al 1991; Webb et al 1990; Wyndaele and Maes 1990; Lapides et al 1972, 1974, 1976). If the catheter and the catheterisation technique are clean, how this is achieved may be irrelevant.

In the statement produced by NIDRR it was concluded that infection was reduced with intermittent catheterisation compared to indwelling catheterisation, and ICSC posed no greater risk than sterile catheterisation. Suggestions were made that care was required that the reused catheters be cleaned properly, but here too, no indication was given as to what cleansing agent or method should be used (NIDRR 1992).

In a study conducted by King et al (1992) comparing urinary infection rate for clean versus sterile technique of catheterisation (in a hospital setting), it was shown that the rates for both methods were similar. Prieto-Fingerhut et al (1997) compared sterile intermittent catheterisation to non-sterile catheterisation performed by nursing staff in a rehabilitation unit of people with SCI. It was found that patients who received a non-sterile technique had a 13% higher incidence of UTIs. This result was not statistically significant, possibly due to the small sample size of 29. This study also indicated that the total cost of the sterile method was 277% higher than the non-sterile method. Bennett et al (1997), found that a closed sterile catheterisation system did result in less UTI's in hospitalised SCI patients.

It could be argued from these results that sterile catheterisation would be the optimum technique for all ICSC but as these studies involved catheterisation performed by trained nursing staff in a hospital environment, the relevance of this result to community management must be questioned. In his paper outlining the urological treatment of the acute spinal cord injured person, O'Donnell (1987) states that a strict sterile technique should be performed whilst an in-patient but a clean technique is sufficient in the community.

The catheter as a source of infection

It has been assumed that contamination of the catheter, prior or during its use, is a primary source of UTI. Barnes et al (1992) explored the possibility that catheterisation was a source of infection in men with SCI. They postulated that urine samples were actually contaminated during insertion of the catheter into the urethra. Their study involved a comparison of urine bacteria to swabs from the urethra, perineum and fingers. It was found that there was no evidence of the introduction of new bacteria to the bladder during catheterisation. However, one in 10 cases showed an increased number of the strain of bacteria already present in the bladder, after catheterisation.

Wyndaele et al (1980) observed 30 patients with neurogenic bladders treated with ICSC. Eleven of these patients had persistent UTIs. The researchers attributed one case to small capacity bladder and chronic reflux, five patients were said to have careless and irregular catheterisation and five had no objective cause for chronic infection. It was then stated that these chronically infected patients must have been contributing to their infections by

improper and careless catheterisation. They do concede in a later paper that over distension of the bladder and irregular bladder emptying increases the risk for recurrent infections, although chronic persistent infections were still felt to be caused by improper catheterisation technique (Wyndaele and Maes 1990). Winder (1990) stated that UTI's were caused by 'bad habits' including poor catheter cleaning and technique of insertion. She recommended that the catheterisation technique be reviewed with particular emphasis placed on the amount of lubricant used by male clients. UTIs were attributed to excessive lubricant use, which was thought to be left inside the urethra and introduced into the bladder by consecutive catheterisation.

The statement by the NIDRR (1992) indicated that a poor level of hygiene is a possible contributor to infections. However, there is limited research to establish the effect of personal hygiene and other behavioural factors upon the rate of UTI (Shekelle et al 1999).

The survey conducted by Rainville (1994), involving 175 rehabilitation facilities in the United States of America, covered areas such as equipment used, cleansing agents used, cleaning technique, catheter replacement times, and techniques taught for discharge. The majority of facilities taught clients to use non-sterile catheters in the community. Soap and water was the most commonly used cleaning agent (59.8%), but many of the facilities were advocating a variety of other agents including bleach, povidone-iodine, and boiling water, as well as 'others', which were not named.

A number of studies have been conducted comparing different catheter cleaning methods (Mervine and Temple 1997; Kurtz et al 1995; Lavellee et al 1995; Moore 1990). A study by Kurtz et al (1995) compared betadine solution, bleach, hydrogen peroxide, and tap water as mediums for cleaning catheters. The study showed the betadine, bleach, and hydrogen peroxide solutions were better than tap water in the eradication of E.coli, reducing the bacteria growth to zero. This state of zero bacteria growth may be hard to reproduce in a home environment. Many other variables would be introduced, such as, how well the client or carer washes their hands, where the catheter is stored in between cleaning and using, and the cleanliness of the environment in which the client is performing the catheterisation.

In a study conducted by Mervine and Temple (1997), microwave sterilisation was compared to soap and water washing. The results indicated that microwave was more effective in the eradication of organisms, but rubber catheters only could be used with this method of sterilisation. Lavellee et al (1995) also conducted a study into the best process of cleaning a catheter for reuse in intermittent catheterisation. It was found that the act of rinsing and drying the catheter after use reduced the E.coli count to near zero. On the strength of this result they questioned whether further cleaning was required.

Moore (1990) showed there was no significant difference between the ability of cetrimide, a recognised antiseptic agent, and Sunlight® soap, to clean colonised catheters. This would suggest that a cheap and easily obtained substance such as dishwashing liquid or Sunlight® soap could successfully be used to clean catheters.

In a study of 255 children who were using intermittent clean catheterisation it was shown there was no significant renal impairment even in the presence of bacteriuria introduced by the catheter (Kass et al 1981). There is, however, no doubt that good catheter technique is important in avoiding trauma to the urethra. Pubic hairs can infrequently be introduced during ICSC and can become a nidus for stone formation (Diokno et al 1983).

Patient education to reduce risk factors

Barber et al (1999) proposed that the risk of UTI in people with SCI could be reduced through the education of proper technique and hygiene. They targeted patients who had experienced two or more UTIs in a six-month period. The target group consisted of only 17, and at the end of the study 11 people (65%) had decreased their number of UTIs to less than two in a six month period.

Anderson et al (1983) conducted a study of patient education and the reduction of the incidence of UTI, where the focus of the education was recognition of the signs and symptoms of infection. This study showed that although the incidence of UTI was reported to be the same as a comparison group without education, the educated group lost less time from work and leisure activities as a result of infection. It was thought in this study, that the educated patients were taking earlier action with their UTIs leading to a reduced impact on their daily lives.

CONCLUSION AND RECOMMENDATIONS FOR PRACTICE

The majority of the literature supports the notion that over distension of the bladder, high residuals and prolonged emptying intervals are the key risk factors for UTIs in people using ICSC. Bladder management should aim to reduce these risk factors whilst recognising the need to develop a routine which can be adapted to the client's lifestyle. The NIDRR consensus has recommended that these findings be adopted by practitioners and consumers in the management of bladder dysfunction and spinal cord injury (NIDRR 1992).

There is far less evidence to implicate catheterisation technique and the introduction of bacteria from catheter insertion as primary sources of infection. In the studies that were concerned with catheterisation cleanliness, it appears that simple soap based mediums may well be as effective as the more recognised antibacterial and antiseptic mediums. Whilst technique and hygiene should form part of a comprehensive ICSC education program, these

elements should not be emphasised at the expense of bladder volumes, residuals and emptying intervals.

To implement a best practice approach to bladder management the following factors should be the primary areas of focus when educating patients on the principles of self-catheterisation:

1. The importance of maintaining low bladder volumes to reduce distension,
2. The importance of regular emptying schedules to allow for a safe emptying interval,
3. A clean technique that is easy to comply with in a community setting, and,
4. Encouragement of techniques that ensure the lowest possible residual volumes.

Similarly, when attempting to determine the cause of recurrent UTI in individual cases, adherence to a comprehensive assessment addressing these major risk factors is recommended.

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THE ROLE OF SPECIALIST NURSES IN IMPROVING TREATMENT ADHERENCE IN CHILDREN WITH A CHRONIC ILLNESS

*Michele Goode, RN, RM, Paediatric Intensive Care Cert, *Clinical Nurse Consultant-HIV/AIDS, Sydney Children's Hospital, Randwick, New South Wales, Australia*

*Mary Ellen Harrod, BA, DipArts(Psych), *Research Officer, Sydney Children's Hospital, Randwick, NSW, and Research Fellow Faculty of Nursing and Midwifery and Health, University of Technology, Sydney, Australia*

Sandra Wales, RN, PaedCert, GradDipChildHlth, MN, Clinical Nurse Consultant-Respiratory, Sydney Children's Hospital, Randwick, and Senior Clinical Fellow Faculty of Nursing and Midwifery and Health, University of Technology, Sydney, Australia

Professor Jackie Crisp, RN, PhD, FCN, David Coe Clinical Chair of Child and Adolescent Nursing, Sydney Children's Hospital and Faculty of Nursing, Midwifery and Health, University of Technology, Sydney, Conjoint Professor University of New South Wales, Australia

* positions held at time paper was written.

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ABSTRACT

Adherence to medical treatment is an ongoing challenge for families and young people with chronic medical conditions. One factor that is likely to influence treatment success is the quality of professional relationships both within the health care team and between the family, child and professionals. This paper explores the topic of professional relationships and adherence and provides an example of how a multidisciplinary team can improve the health and quality of life of paediatric patients. More specifically, the paper argues for the crucial role of the specialist nurse in supporting patients and their relationships with the health care team.

INTRODUCTION

Adhering to complex medical regimens associated with chronic illness is demanding. Remembering to take several medications several times a day, constantly on the lookout for symptoms associated with acute exacerbations, avoiding activities others 'live for' and eating the right foods rather than what they would like to eat demands a maturity and focus beyond many adults. The addition of developmental constraints and the imperatives of childhood make treatment adherence even more of a challenge for children, and consequently their families and the health professionals caring for them. Establishing the capacity of these children to care for themselves in childhood is important if the poor levels of adherence frequently found in adolescents and adulthood are to be avoided.

The following case study provides an example of the complexities surrounding treatment adherence in children with chronic illness, and the discussion of the role specialist nurses play in improving adherence levels.

Molly's story

Molly is HIV positive. One year ago Molly's parents died of AIDS related illnesses. Such a huge loss would be difficult for anybody, let alone a nine-year-old child.

Molly is an only child, cared for by her Aunt Judy, who has two other children, aged one and 10 years. Molly has had to cope with a move to a new family, new house, new school and new friends. She is linked in with a counsellor fortnightly to assist in processing these changes.

To support Judy in her new role as carer for Molly, the specialist nurse for paediatric HIV provided ongoing home visits. One focus of the visits was to discuss HIV and the importance of antiretroviral medication and to develop strategies that may assist Judy and Molly to remember to take the medication. However, despite the interventions, Molly's disease was progressing and her condition was deteriorating, with an increase in her HIV viral load and a fall in her T4-lymphocyte (CD4) count. Molly was losing weight and had recurrent oral candidiasis. Both Judy and Molly insisted that her medication was taken without fail, three times daily. However, further questioning more directed to the specific occasions of taking medication revealed that some doses were missed. The reasons given varied from Judy forgetting to give them, to Molly refusing to take them.

Because of the disease progression it was clear that Molly needed a change of antiretroviral medications. However, the paediatric HIV team was reluctant to start a new regimen during the period of instability. The team was concerned the adherence rate, greater than 95% required for the new regimen to be effective against the virus, would be unlikely at this time (Ostrop et al 2000). Missing even a small number of doses, therefore, would cause the virus to become resistant to the medication and render not just the new regimen, but also many other HIV antiretroviral medications useless. If Molly's medication was not changed soon to the new medication her condition would continue to deteriorate. The specialist nurse arranged another home visit to talk with Judy and Molly about the proposed change and explore ways to improve the likelihood that the new medication would be taken by Molly as prescribed.

It was breakfast time when the nurse arrived. Chaos reigned, with Judy feeding her one-year-old and screaming at Molly to take her tablets. The nurse helped Molly get her tablets and stood by as she took them. As soon as they were in her mouth she went running outside to play. The nurse saw her spitting her tablets out onto the grass. When asked why she did not swallow her tablets Molly said she wanted to die so that she could be with her mum and dad. She was so unhappy and cried - one of the few times she had done so since her parents' deaths. When she was asked if she told her counsellor how bad she felt, she said she had not been to see her and she could not talk to Judy either. Judy admitted that it was not always possible to take Molly to her counsellor because she was just too busy and felt too ashamed to tell us.

The problems identified were discussed with the paediatric HIV team and a case management meeting was called. A key representative from each service was invited

to participate and roles and responsibilities in the planning sessions were identified. The specialist nurse was appointed as the case manager and coordinator of Molly's care. From this point on, all services were processed through the specialist nurse. The group identified gaps in Molly's care and the following strategies were put in place:

- Weekly visits were arranged with her counsellor - with transport to these appointments and then on to school.
- An easier medication regimen was started, twice daily - at breakfast and at night.
- Judy was asked to watch Molly and ensure she swallowed her new medication.
- Arrangements were made for respite care for Molly. This involved spending every other weekend with a couple who offered to provide her with additional attention and support. This arrangement was formalised through community services and provided Judy with a rest from her very demanding duties as carer of Molly.
- Judy was offered regular counselling and support by the HIV social worker.
- Ongoing education and discussion of issues continued with the specialist nurse.

Factors affecting adherence in children and adolescents

The term compliance, defined as 'the extent to which a person's behaviour coincides with medical care and advice' (Sackett 1976) implies obedience to treatment orders or recommendations, without in-depth discussion or negotiation. 'Compliance' has been widely criticised for focussing on the physician's role and emphasising the subservience of the patient and their families (Karoly 1993). Compliance research has been criticised as one-dimensional, practitioner centred, reductionist, consistency oriented and amotivational (Karoly 1993). The term 'adherence' is intended to be less judgemental, emphasising the relationship between the patient and provider (Kyngas, Kroll and Duffy 2000).

More recently, the multiple social, psychological and situational factors affecting adherence have been increasingly recognised and researched. The feelings, motivations and capabilities of children with chronic illness and their families, which are liable to change over time, are also increasingly being considered when discussing issues of adherence. The challenge of adherence for the health care professional is in assisting and supporting children, adolescents and their families through their difficulties. However, adherence in adolescents is often complicated by conflicting perceptions from parental and health care professionals of what is important in their lives (Kyngas et al 2000).

In the paediatric setting, decisions on health care and adherence issues involve a number of participants - the parent, other family members, and health professionals - rarely the child. Decisions are made with the child's perceived 'best interests' at heart (Bricher 2000). However, while collaboration may be an ideal in paediatrics, factors such as laws governing the age of consent, cognitive and functional ability and emotional maturity necessitate adult supervision of medical regimens in most young children. Ideally, as the child develops, management of treatment regimens are modified, leading to shared management of their health (Kieckhefer and Trahms 2000).

On the other hand, peer acceptance of medical regimens, whether by active support or by modification of lifestyle can assist compliance (Kyngas et al 1998).

Other factors complicating the issue of treatment adherence in children include family functioning (Hanson et al 1992), parenting style (Kyngas et al 1998), parental self-esteem (Gavin et al 1999), relationships with peers (Kyngas et al 1998) and parental worry about the condition (Hazzard et al 1990).

Parents, who mediate the relationship between the health care practitioner and the child by reporting and interpreting the child's symptoms and emotions, are often influenced by their preconceptions and personal circumstances (Sartain et al 2000).

It is important for health care professionals and parents working with children with chronic illness to implement anticipatory guidance to facilitate self-care, rather than relying on crisis management when problems arise. One model of shared management (Kieckhefer et al 2000) suggests introducing simple concepts from around the age of two years, with a gradual progression to self-management and transition to adult care by 18 years. More research, however, is needed into the specific difficulties that may be faced and how to overcome adherence problems when the responsibility for care switches from the parent to the child.

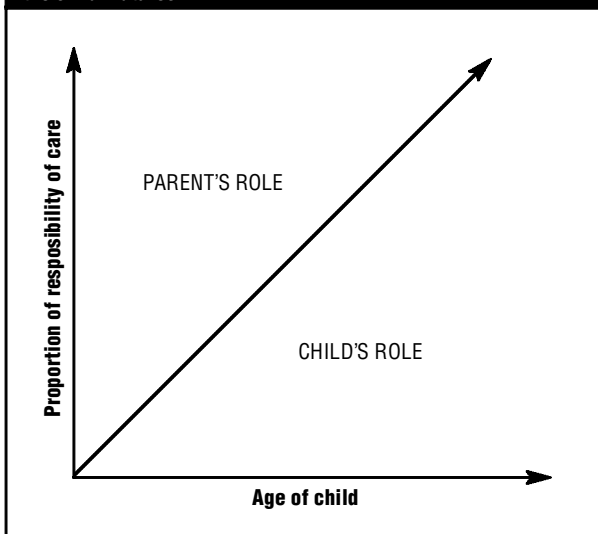
The role of health care professionals in treatment adherence

Central to adherence is communication and rapport between the patient and in the case of children, the child, family and health care professional. Research has shown that up to 50% of all adult patients do not remember physician advice immediately after the consultation (DiMatteo 1994). Given that communication is frequently with parents, it is likely that this statistic has relevance for adherence in the paediatric setting.

Why don't people remember what they are told by their physicians? It is likely that a range of factors are involved. Apathy during the appointment is an unlikely cause as research has also indicated that 90% of patients want to work in partnership with physicians and obtain as much information as possible. When more active involvement in care is promoted, patients are more satisfied with their care, experience greater symptom alleviation, a higher level of overall improvement, less distress and greater perceived control (DiMatteo 1994). Given that patients want information, but frequently appear not to be receiving this information in an effective manner, it is worth examining what variables impair communication and what facilitates good rapport between patients and health care professionals.

Relationships with health care professionals would ideally continue over long periods of time. However, for an ongoing relationship to be successful, parents, children and adolescents must be able to trust the medical

Figure 1: Graphical depiction of the transition to self-care as the child matures



The health care professional can facilitate ongoing relationships with children of different ages by assisting them in negotiating the changing nature of the interactions with their parents as they seek greater independence. When a child reaches adolescence and decides that they are ready to assume control over their life, the presence of a chronic illness has the potential to increase reliance on parents and other adults, creating resentment and a sense of a loss of control (Kyngas and Hentinen 1995). The connection between feeling out of control and poor mental and physical health have been explored in the psychological literature and some evidence exists that this relationship is true for adolescents with a chronic illness (Kuttner et al 1990). Family support at this time needs to take into account the increasing maturity and independence of needs of the child. Encouragement and acceptance of independence by parents have been found to be associated with good compliance; and, a lack of trust and an authoritarian approach, with poor compliance (Kyngas et al 1998).

Medical treatment can isolate adolescents - both physically and psychologically - from their peers and may even stigmatise them. For example, one recent study found that 58% of students without asthma and 42% of teachers believed that fellow students with asthma could become addicted to their medication (Gibson et al 1995).

knowledge of health care professionals as well as confide any doubts they might have of treatment efficacy and side effects. In many cases, non-adherence is not so much a case of failure to comply, but a search for alternatives. If a patient or parent does not believe in the benefits of the treatment, they may refuse it or look for alternatives (Saunders and Lawton 1993). Likewise, patients must have faith in the knowledge and good will of nurses caring for them when their illness cycles through greater wellness and sickness, as so often occurs, or when treatment may become unpleasant and difficult.

Physical symptoms are more easily measured and detected than psychosocial problems, however the impact of psychosocial factors is often neglected, despite the potential impact on adherence (Newell et al 1998). It is important to be able to interpret the patient's mood as these factors are known to positively and negatively impact on the self-perception of symptom severity and medication adherence (Schanberg et al 2000).

Prejudice can also damage health care professional-patient relationships. For instance, when dealing with people who are 'different' there may be a tendency to attribute negative behaviours to personal characteristics rather than circumstances in their environment or those relatively outside of their control (Pettigrew 2001). Translating this tendency to health care, it must be acknowledged that the potential for discrimination can play a huge part in communication with patients. Race has been found to influence physician perceptions of adherence, intelligence and likelihood of risky behaviour (van Ryn and Burke 2000). Racial group membership can also influence the perception of risk for particular illnesses (Sadler et al 2000). Countering these problems begins with health care professionals developing self-awareness and monitoring their own behaviours. It also demands that any interventions that are tailored to specific communities are collaborative and avoid the pitfalls of patronisation or stigmatisation (Sadler et al 2000).

For long-term care to have a positive impact, a non-hierarchical collaboration within the medical team and between the patient and health care professionals should be established (AEIOP 2000). Critical attributes of successful collaborations within the medical care team include good communication, a shared philosophy on issues relevant to care, mutual trust and respect and the ability to evolve (Lockhart-Wood 2000). Failure to communicate between the physician and the patient and the physician and the nurse can result in poor-quality patient care (Larson 1999).

The role of the specialist nurse in adherence

Adherence to treatment can be improved by the involvement of a multidisciplinary team including a specialist nurse. The increasing independence of the nursing profession in Australia after the commencement of tertiary training (Appel et al 1996), and the development of specialist nurse positions over the last 20

years, has contributed to an increasing recognition of the unique role that nurses play in the care of long-term patients.

Specialist nurses' provide expert nursing care which has been found to improve communication and increase access to services (Mills et al 1999). Because of a greater depth of interaction with the patient, the specialist nurse is in a position to understand the complexity of the contextual issues affecting a patient's adherence to their treatment. Nurses, who typically spend more time with patients than physicians, can develop informal lines of communication that are supportive rather than directive (Fenwick et al 2001). Specialist nurses' have also been described as having the experience and intuition required to interpret complex situations, advocate for patients and determine an effective course of action (Adams et al 1997).

Specialist nurses are also skilled in communication, consultation, role modelling and patient education (Appel et al 1996; Kyngas et al 1998). Supportive communication and availability allow nurses to work with patients from the 'inside out', rather than the 'outside in' that typifies many physicians' visits (Reutter and Ford 1996). These factors enhance the ability of specialist nurses to deal with complex and multi-faceted issues such as adherence. They also allow specialist nurses to develop trusting relationships with patients and, where necessary, mediate relationships between patients and other team members.

The role of the specialist nurse in case management

The medical treatment of children and adolescents requires ongoing support from multiple sources - parents, friends, school, community and health care workers - if the children are to successfully care for themselves. Parents are expected to perform a number of specialist tasks associated with the care of their children: assess symptom severity, administer medication, conduct day to day care including exercise and diet, advocate for their child, take them to multiple appointments, liaise with schools and continue to be cognisant of the needs of the rest of the family.

How can parents be reasonably expected to accomplish all of these tasks without a mechanism that supports the family outside the visit to the doctor? How can a paediatrician working alone effectively address the complexities of adherence during a consultation every two to three months with the time constraints inherent in a busy practice? A coordinated team approach is necessary.

To facilitate the team approach, there needs to be equality among members as each team member looks at adherence from a differing perspective. This requires a fluid approach to care, with each person's contribution respected and valued as a key piece of information. The team approach also requires case management to coordinate services provided to the family reducing not adding to the level of confusion often experienced by

families with a child with a chronic illness. It is important that the message given is consistent. It is also important that the services support not substitute for family functioning. Nurses can play a pivotal role in case management by ensuring continuity of care and communication among the health care team (Wolfe 1997) by virtue of the greater amount of time they have available to spend with each family.

Recognition of multidisciplinary teams as the preferred model in treating chronic illness has increased over the past 20 years, with this model of care now receiving worldwide recognition. A team approach has been identified as increasing survival, improving clinical status and satisfaction with care in cystic fibrosis (Madge and Khair 2000).

A specialist nurse is ideally placed to provide the vital link between the family and the health care team. While research has demonstrated that a specialist nurse can view the professional boundaries in multidisciplinary teams as blurred, clarification of team roles and the maintenance of a disciplinary focus can allow nurses to work flexibly with other professionals (Wales 2002; Ryan and Hassell 2001). Working flexibly allows for a maximal utilisation of skills and enables members of different professional groups to respect and complement each other.

In summary, Molly started on her new treatment regimen and her condition improved. Her HIV viral load has fallen to undetectable levels and her T4-lymphocyte count has increased. With regular visits to her counsellor she was able to talk openly about her parents. She became a happier child and loved her special time away with her respite carers. The difficulties Judy faced in providing optimal care were uncovered because of the ability of the specialist nurse to spend time in the home environment. No one person could have provided the type of support Molly needed at this stage of her life. A coordinated team effort stabilised Molly's health and improved her quality of life.

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