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EDITORIAL

Jill Iliffe
Federal Secretary, Australian Nursing Federation

Welcome to the first edition of AJAN online. From Volume 25, AJAN will be fully online and freely available online from its own website: http://www.ajan.com.au. The AJAN can be downloaded from the website by article or by complete issue. Back volumes will also be available.

This is a very exciting development for AJAN. It will give unlimited national and international access to AJAN manuscripts and provide unlimited national and international exposure for authors and their work.

The Australian Nursing Federation, publisher of AJAN, has a strong commitment to making nursing research freely available though the internet and to supporting nurse researchers by publishing their work. Other organisations, which appear on the AJAN homepage as sponsors, have made a similar commitment and it is through their generosity and their faith in nurse researchers that AJAN can take this exciting step into the future.

Volume 25 is special in another way as it marks 25 years since AJAN was first published. In the next issue of AJAN we will revisit the people and events that brought AJAN into being.

The successful retention of nurses is a critical factor in maintaining a sufficient nursing workforce for the future. In this issue of AJAN, Spooner-Lane and Patton explore the influence of work stressors and work support on burnout among a sample of public hospital nurses in south east Queensland; Long and West examine the elements required for a successful re-entry program for nurses following a career break; Charleston et al discuss the importance effective orientation for the confidence and learning of graduates working in the area of mental health; and Joyce and Crookes report on the development of an Australian specific tool which provides a valid and reliable measure of magnet features in Australian health facilities. (The magnet concept, developed in the United States of America identifies characteristics of a health facility which make it successful in attracting and retaining nursing staff.)

Aged care is becoming an increasingly important area of nursing with our ageing population. Three papers in this issue of AJAN explore different aspects of aged care nursing. Speed et al undertook a study to estimate the prevalence of delirium in two hospitals in Western Australia. Their findings suggest that, particularly in older people, delirium may go undiagnosed and untreated because behaviours associated with delirium are often assumed to be caused by dementia. A paper by Holm et al from Sweden discusses the importance of nutrition in older people in preventing decubitus ulcers while, still on the aged care theme, the paper by Crack and Crack raises concerns about the diminishing role of registered nurses in the management of nutrition for older people in residential facilities.

The significant impact nurses can have on health outcomes and health costs is demonstrated in the paper by Flint et al who investigated the progression from gastric tube feeds to full suckle feeds and discharge home of preterm infants, concluding that length of stay in hospital can be reduced for these preterm infants if discharge

planning is commenced early. Murphy et al examined compliance with phase one cardiac rehabilitation guidelines in the inpatient setting and while compliance has been shown to improve cardiac outcomes, they found that potential benefits were not being realised because of non-compliance.

The willingness of nurses to challenge stereotypes and extend their areas of expertise are demonstrated in the papers by Irwin, who discusses discrimination against lesbian, gay, bisexual and transgender people; and by McClure et al who, in another international paper, this one from the United States of America, explore the role of the advanced practice nurse in group therapy for people who abuse alcohol.

The development of a conceptual model to enhance critical thinking skills in a group of nurses from the middle east is described by Simpson and Courtney who suggest the model has much wider application in creating a learning environment to develop critical thinking and promote professionalism in nursing.

And finally, our guest editorial is written by David Arthur, a long serving member of the AJAN Editorial Advisory Board. The EAB, as do AJAN reviewers, give generously of their time and expertise to support nurse researchers and promote nursing research. The establishment of AJAN twenty five years ago and its progression to a freely available online peer reviewed journal carrying national and international contributions has been possible because of the dedication, determination, contribution and commitment of so many nurses over the years. We are all indebted to them.

Reflections on nursing

GUEST EDITORIAL

David Arthur
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It was never really my plan to become a nurse. My mother wanted me to be a doctor; my father wanted me to be an engineer; and I wanted to be a pilot. Eventually I completed my registered nurse certificate in the hospital in which I was born in my home town.

During a break between school and university, I took a job as a 'wardsman' at the local hospital to earn some money to support my studies. After a couple of months the director of nursing summoned me and suggested I complete a certificate in nursing. By that time I had overcome my dislike of hospitals, enjoyed the environment and caring for patients and decided to become a nurse.

I entered nursing at a time when there were few males and those males who worked in nursing were often regarded as somewhat effeminate. Nevertheless, the early 70's were a time of liberation and Australian culture encouraged gender equality and equal opportunity. Our hospital, where I completed a three year certificate to become a registered nurse, strongly encouraged males to enter nursing. I must say at the time my family, who expected me to complete a science or engineering degree of some form, were quite taken aback, yet supportive. Male nurses were expected to do the same as females. We worked on female wards, in midwifery and gynaecology. This was not always easy as it meant pioneering some

change in attitudes amongst patients, families and other professionals. However with the support of colleagues, we brought about a change in local culture and of course these days, male nurses are commonly accepted as an integral and equal part of the health care team in most developed countries. The notion of males working in nursing, while well developed in some countries, has faltered in others. For example in some Asian countries, nurses are not rostered to female wards yet their international registration requires they have experience in working with females.

The 70's were also a time of industrial restlessness as trade unions were very active and there were several strikes over wage increases and an increase in the professional status of nursing occurred. Nurses were quite militant and actively shaking off the shackles of a system which was military in its discipline and apprenticeship like in its teaching and learning.

In the 80's, the Australian government decided to move all nursing from hospital schools into tertiary institutions and I decided that I would focus on becoming a nurse educator, a move which meant systematically obtaining Bachelor, Master and PhD degrees and entering the university system as an experienced teacher but a very inexperienced researcher and administrator. This occurred because of the rapid growth of university nursing schools and the congruent demand for nurse academics. We were novice academics and had to learn quickly, but over the last 15 years, nursing research has developed well and is becoming an integral component of the profession underpinning education and practice.

I am not sure if I would have done the same had I worked in nursing in another culture, but I do feel

that the Australian culture that has influenced my development, has been one of equality and being offered a 'fair go'; in a culture of empowering professions previously heavily dominated by other professions or genders; and supported by an enlightened government at the time who believed in the professional development of nurses.

These cultural influences I have carried with me and they have influenced my practice and work as an academic in several different cultures. Now I have the opportunity to work in a nursing school in Singapore which has the potential to provide regional leadership and develop an international reputation. To do this, we need to be: confident, yet humbly aware of other cultures and their nursing cultures; innovative yet patient and a believer in time and consistency building credibility; open and democratic in leadership style; empathic and encouraging of colleagues who are disadvantaged by culture, economics or politics;

and believers in traditional scholarship and related ethical behaviour.

Having had a full and exciting career in nursing, here I am in Singapore as Head and Professor of the Alice Lee Centre for Nursing Studies, of one of the most promising schools of nursing in the region. With a generous donation from the Lee Foundation, the school had its first intake for the BSc (Nursing) of 50 students in 2006. I am part of a profession of which I am proud and look forward to serving for some years yet. After a career choice which myself or my family never considered, I have been carried along on a wave of change and development in nursing and have been fortunate enough to have kept up to date with qualifications and experience and now am proud to say I am looking forward to the challenge of making the Alice Lee Centre for Nursing Studies a regional leader in nursing education, research and clinical innovation, with an enviable international reputation.

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Determinants of burnout among public hospital nurses

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KEY WORDS

job-specific stressors, role stressors, organisational
support, burnout.

ABSTRACT

Objective
The present study extends our knowledge of the main
determinants of burnout among nurses working in
public hospitals and investigates the impact of work
support on the stress-burnout relationship.

Design
A cross-sectional, survey design.

Setting
Data were collected from three public hospitals in
south east Queensland, Australia.

Subjects
A convenience sample of 273 nursing staff (235
females, 38 males) participated in the study.

Main outcome measures
The influence of work stressors (ie. job-specific
stressors and role stressors) and work support (ie.
supervisor and coworker support) on burnout amongst
public hospital nurses.

Results
Overall, nurses reported moderate levels of burnout
(emotional exhaustion, depersonalisation and reduced
personal accomplishment). Hierarchical regression
analyses revealed that socio-demographic factors play
a small, but significant role in predicting burnout. Role
Overload, Job Conflicts and Role Boundary contributed
to higher levels of Emotional Exhaustion. Role
Boundary and Professional Uncertainty contributed to
higher levels of Depersonalisation and Role Boundary
and Role Ambiguity contributed to lower levels of
Personal Accomplishment. Only Supervisor Support
had a significant main effect on Depersonalisation and
Personal Accomplishment. No evidence was found to
indicate that work support had a buffering effect on
the stress-burnout relationship.

Conclusions
The results highlight the need for organisational
interventions to reduce the workload placed on nurses.
Supervisors are in a better position than co-workers to
reduce burnout among nurses by clearly outlining the
boundaries and expectations of the nursing role.

INTRODUCTION

Workplace reforms to improve the quality and safety of health care services have only heightened the pressures placed on nurses in recent years. Advances in technology and practice and increasing demands for services and accountability (Harris et al 2002; Lloyd et al 2002) have resulted in nurses engaging in further specialised training and in the provision of more complex and diverse care (Duckett 2004). De Rijk et al (1998) proposed that prolonged exposure to stressful situations form an excellent breeding ground for burnout in nurses. It is therefore important to explore factors that contribute to the development of burnout (eg. work stressors), but also to examine potential coping resources that may assist in the reduction or prevention of burnout (eg. social support) before developing and implementing appropriate stress reduction interventions.

BACKGROUND

Definition of Burnout

Burnout is not a symptom of work stress; it is the end result of unmanaged work stress (Altun 2002). It is primarily found in helping professions where individuals are required to work closely with others in an emotionally charged environment. The most widely used and accepted definition of burnout is the multidimensional conceptualisation developed by Maslach (Maslach et al 1996; Maslach and Jackson 1986) which identifies components of emotional exhaustion, depersonalisation and reduced personal accomplishment. *Emotional exhaustion* involves feelings of being emotionally overextended and exhausted by one's work. *Depersonalisation* refers to the development of impersonal and unfeeling attitudes toward recipients of one's service. Feelings of reduced *personal accomplishment* occur when an individual experiences a decline in his or her feelings of competence and successful achievement in working with people. Burnout has been implicated in the reduction in quality of care, absenteeism and job turnover (Gillespie and Melbie 2003; Altun 2002). Ultimately, this compromised standard of care

impacts on the effectiveness and success of health services (Raiger 2005; Akroyd et al 2002).

Work stressors and burnout

Several nursing studies have investigated the relationship between work related stressors and burnout. Some researchers argue that job-specific stressors have the greatest impact on individual strains because they are most salient to employees in a particular job. Not surprisingly, researchers have primarily relied on stress scales specific to the nursing profession to investigate work-related determinants of burnout. Other researchers however have investigated generic stressors associated with the role of nursing, such as role overload, role conflict and role ambiguity. However, few studies (eg. Kilfedder et al 2001; Beehr et al 2000) have explored both job-specific and role stressors simultaneously. The present study addresses the need to examine whether certain job-specific stressors and generic role stressors are differentially related to burnout and which types of stressors explain more of the variance.

Social Support

The nursing stress literature identifies social support as a useful coping resource in managing stressful situations within the workplace and reducing the harmful consequences of stress on well-being (Joiner and Bartram 2004). Most occupational stress studies consider supervisors and/or colleagues to be the two major sources of support for employees, proposing that in dealing with stressors at the workplace, organisational sources will provide more support than family and friends outside of the workplace (Ellis and Miller 1994). This is because supervisors and work colleagues are able to provide support in the form of pertinent information and feedback, practical assistance, and/or emotional support relevant to the stressful work situation (Joiner and Bartram 2004; Greenglass and Burke 2002).

Disagreement exists however, as to how social support assists individuals in ameliorating the detrimental effects of burnout. Some researchers have reported a 'main' effect, suggesting that support

reduces burnout regardless of the intensity of the work stressors experienced. Others have found a 'buffering' or 'moderating' effect in which social support interacts with work stressors to affect burnout. From this perspective, social support does not necessarily lower the level of experienced stress but instead assists the employee to cope with the stressful situation. Hence, the impact of social support is expected to be greater for those experiencing high levels of stress. Although empirical studies have consistently supported the main effect model, there has been little support for the buffering effect. The present study examines the effect of different sources of work support on the stress-strain relationship.

METHOD

Research Design

The present data forms part of a larger scale cross-sectional study using a mixed-method design comprising of both qualitative and quantitative data (Spooner-Lane 2004). The findings from the qualitative data were used as a basis for compiling a contextually relevant survey for nurses to assess the main variables of interest in this study. For the purpose of this paper, only the findings from the quantitative data are presented.

Participants

A convenience sample of 273 nursing professionals (235 females, 38 males) from two large public hospitals and one smaller public hospital from south east Queensland was used. The majority were employed in the surgical division (n=121, 44.3%), followed by critical care (n=87, 31.9%), medical (n=29, 10.6%), maternity (n=20, 7.3%), administration (n=8, 2.9%), other (n=5, 1.8%) and oncology (n=3, 1.1%). The majority of participants were registered nurses (97.5%), working full-time (64.6%), with five years or more nursing experience (76%) and aged between 30-39 years (28.3%). The overall response rate was 67.74 percent.

Questionnaire

Following approval from the hospital and university ethics committees, participants completed a self-report questionnaire containing the following scales, as well as demographic questions (age, gender, employment status, hospital ward, nursing experience).

Job-specific Stressors

Wolfgang's (1988) Health Professions Stress Inventory was used to measure nurses' perceptions of job-specific stressors. The 30 item inventory provides a measure of the amount and sources of stress experienced specifically by health care professionals. Respondents answer how often they find each situation to be stressful in their work setting using a five-point Likert scale, ranging from 0 (never/rarely) to 4 (very often). For the purpose of the present study, the wording of item 4 ('Not receiving the respect or recognition that you deserve from the general public') was slightly modified to make it more relevant to nurses in this study. The words 'the general public' were replaced by the word 'physicians.' Items may be totalled to give a global measure of job stress, however in the present study, principal axis factor analysis with an oblique rotation revealed a four factor solution explaining a total 36.87% of the variance (Spooner-Lane and Patton 2005). Professional Recognition (11 items, 24.24% of the variance) measures the lack of recognition and support provided by other health care professionals and the lack of opportunity to contribute to important job related decisions. Job Conflicts (9 items, 5.84% of the variance) measures expectations associated with caring for patients and job demands that are conflicting or difficult to meet. Professional Uncertainty (8 items, 3.93% of the variance) primarily relates to the unpredictability and uncertainty associated with treating patients. Interpersonal Conflict, (2 items, 2.84% of the variance) measures the conflict that may arise as a result of working closely with supervisors, administrators and co-workers. Since the present study aimed to investigate specific job stressors in relation to burnout, the four subscales were used.

Role Stressors

Role stressors were measured using the Occupational Roles Questionnaire (ORQ), one of three subscales from Osipow and Spokane's (1987) Occupational Stress Inventory (OSI). The ORQ comprises six subscales, three of which; role overload, role ambiguity, and role boundary, each comprising 10 items, were examined in this study. Role overload measures the extent to which an individual is able to accomplish expected work loads. Role ambiguity measures the extent to which the priorities, expectations, and evaluation criteria are clear to the individual, and role boundary measures the extent to which the individual is experiencing conflicting role demands and loyalties in the work setting. Responses were made on a 5-point Likert scale ranging from 1 (never or rarely) to 5 (most of the time). Each subscale scores in a positive direction, with higher scores indicating higher levels of stress.

Social Support

To adequately reflect nurses' perceptions of support received at work, items were taken from established social support scales (King et al 1995; Ray and Miller 1994; Shinn et al 1989). The 12 items comprising the Co-worker Support scale were the same as those used for the Supervisor Support Scale, however the word 'supervisor' was replaced by the words 'my co-workers.' Participants responded on a 5-point Likert scale (1=strongly disagree to 5=strongly agree) the degree to which they receive support at work. Items are totalled to give a global measure of supervisor and co-worker support with higher scores representing higher levels of support.

Burnout

The Maslach Burnout Inventory - Human Services Survey (MBI-HSS) (Maslach et al 1996) is a 22-item self-report instrument which yields three separate subscales: Emotional Exhaustion, Depersonalisation and reduced Personal Accomplishment. Participants rate on a 7-point response format how often they feel a particular way about their job, with the range being 0 (never) to 6 (every day). High levels of burnout are reflected by high scores on the Emotional Exhaustion and Depersonalisation subscales and by low scores on the Personal Accomplishment subscale.

Data Analysis

Using SPSS, descriptive statistics were used to analyse the total mean, standard deviation, and internal reliability coefficients for the total scores on the supervisor and co-worker support scales and the subscales of the MBI, HPSI and ORQ. Hierarchical multiple regressions were used to evaluate the unique main effects of work stressors and work support on each dimension of burnout and the moderating effects of work support on the relationship between work stressors and burnout.

RESULTS

Summary Data

Table 1: Means, Standard Deviations, and Reliability Coefficients for the Independent and Dependent Variables (n = 273)

Scale	Scale Dimensions	Mean	SD	α
MBI	Emotional Exhaustion	23.01	11.17	0.90
	Depersonalisation	7.75	5.89	0.71
	Personal Accomplishment	34.62	7.83	0.75
HPSI	Professional Recognition	16.30	8.29	0.84
	Job Conflicts	17.00	6.80	0.79
	Professional Uncertainty	9.48	5.24	0.80
	Interpersonal Conflict	1.88	1.63	0.62
ORQ	Role Overload	26.02	6.82	0.81
	Role Boundary	22.94	6.58	0.73
	Role Ambiguity	19.77	5.57	0.71
Work Support	Co-worker Support	47.85	3.62	0.94
	Supervisor Support	44.11	11.21	0.96

Table 1 demonstrates that with the exception of Interpersonal Conflict, all scales demonstrate adequate internal reliability. A relatively poor internal consistency coefficient for Interpersonal Conflict may be due to the scale comprising only

two items. Participants reported moderate levels of Emotional Exhaustion, moderately high levels of Depersonalisation, and moderately low levels of Personal Accomplishment. The sample reported moderately high levels of Role Overload, moderate levels of Role Boundary and moderately low levels of Role Ambiguity. Participants reported moderately high levels of support from their immediate Supervisor and Co-workers.

Main and Buffering Effects of Work Stress and Work Support on Burnout

Hierarchical multiple regression analysis was performed to examine the main effects of work stressors and work support on each component of burnout. Since the variable Personal Accomplishment was negatively skewed, an appropriate transformation (ie. reflect and square root) was conducted (Tabachnick and Fidell 1996). Using each burnout component as the dependent variable, control variables and independent variables were entered as blocks into the regression equation. Socio-demographic factors that were found to be significantly correlated with each component of burnout were entered in the first step of the analyses thereby controlling for their potential confounding effects. At step 2, the work stress variables were entered. At step 3, the work support variables were entered and finally, the interaction terms were added. Interactions terms were created for variables that were significant at

step 2 and step 3 by multiplying the work stress factors by the work support variables. In line with recommendations for dealing with problems of co-linearity that arise from the use of cross-product terms (Aiken and West 1991), variables were centred before calculating their cross-product terms and conducting the analysis. Centred variables are created by subtracting the sample mean from the variable, resulting in a deviation score with a mean of zero. Only the significant findings are presented in tables 2 to 4.

Emotional Exhaustion

Table 2 demonstrates that Employment Status accounted for a small, but significant 1.8% of the variance in Emotional Exhaustion with full-time nurses reporting higher levels of Emotional Exhaustion than part-time/casual nurses. Adding the work stressors to the regression equation contributed a significant 41.5% increment in the explained variance. Nurses reporting higher levels of Role Overload, Job Conflicts, and Role Boundary have higher levels of Emotional Exhaustion. Supervisor Support was a significant predictor of Emotional Exhaustion, however, the F change value was not significant, indicating that the addition of work support did not significantly improve the prediction of Emotional Exhaustion. No significant buffering effects were found. The final model accounted for 44.7% of the explained variance in Emotional Exhaustion.

Table 2: Hierarchical regression analyses for Emotional Exhaustion

Step Predictor	ß (95% CI)	p-value	Δ R Sq	F ch	p-value for F ch
Step 1			0.018	4.87	0.028
Employ Status					
(full-time, part-time/casual)	-0.14 (-4.61, -0.26)	0.028			
Step 2			0.415	26.54	0.000
Job Conflicts	0.26 (0.21, 0.64)	0.000			
Role Overload	0.29 (0.30, 0.67)	0.000			
Role Boundary	0.24 (0.21, 0.65)	0.000			
Step 3			0.009	2.09	0.126
Supervisor Support	-0.12 (-1.82, -0.03)	0.040			

Overall F (13, 249)=15.50 (p=0.000); R 2 =0.447; adjusted R 2 =0.418; F ch = F change

Table 3: Hierarchical regression analyses for Depersonalisation

Step Predictor	ß (95% CI)	p-value	Δ R Sq	F ch	p-value for F ch
Step 1			0.095	27.31	0.000
Age	-0.31 (-0.41, -0.19)	0.000			
Step 2			0.204	12.25	0.000
Professional Uncertain	0.25 (0.21, 0.64)	0.000			
Role Boundary	0.36 (0.30, 0.67)	0.000			
Step 3			0.029	5.41	0.005
Supervisor Support	-0.18 (-1.82, -0.03)	0.040			

Overall F (12, 248)=10.41 (p=0.000); R 2 =0.335; adjusted R 2 =0.303; F ch=F change

Depersonalisation

Table 3 demonstrates that at step 1, Age (9.5% of the variance) was a significant negative predictor of Depersonalisation with younger nurses reporting higher levels of Depersonalisation than older nursing staff. At step 2, nurses reporting higher levels of Role Boundary and Professional Uncertainty had higher levels of Depersonalisation. Adding the work stressors contributed a significant 20.4% increment in the explained variance. Only Supervisor Support was a significant predictor of Depersonalisation. The inclusion of work support contributed to a slight, but significant, 2.9% increment in the explained variance. No significant buffering effects were found. The final model accounted for 33.5% of the explained variance in Depersonalisation.

Personal Accomplishment

As shown in table 4, only role stressors (17.5% of the variance) were significant positive predictors of Personal Accomplishment. Nurses reporting higher levels of Role Boundary and Role Ambiguity also have lower levels of Personal Accomplishment. At step 2, Supervisor Support was a significant negative predictor of Personal Accomplishment, contributing a slight, but significant, 4% increment in the explained variance. No significant buffering effects were found. The final model accounted for 23.1% of the explained variance in Personal Accomplishment.

DISCUSSION

The findings from the present study support previous research suggesting that nurses are susceptible to burnout. Data revealed that this sample of nurses reported moderate levels of Emotional Exhaustion, moderately high levels of Depersonalisation, and moderately low levels of Personal Accomplishment. This finding is consistent with previous nursing studies in Greece (Iacovides et al 1997), Germany (Bakker et al 2000), Poland (Schaufeli and Janczur 1994), and the United States (Turnipseed and Turnipseed 1997).

Table 4: Hierarchical regression analyses for Personal Accomplishment

Step Predictor	ß (95% CI)	p-value	Δ R Sq	F ch	p-value for F ch
Step 1			0.175	28.19	0.000
Role Boundary	0.26 (0.21, 0.64)	0.000			
Role Ambiguity	0.21 (0.30, 0.67)	0.004			
Step 2			0.040	6.65	0.002
Supervisor Support	-0.25 (-1.82, -0.03)	0.000			

Overall F (5, 262)=15.76, p=0.000; R 2 =0.231; adjusted R 2 =0.217; F ch=F change
Note:. A high total score on Personal Accomplishment relates to a low level of Personal Accomplishment

It was confirmed that work stressors are significant predictors of and differentially related to the three burnout components. Whilst socio-demographic factors explained a small, but significant proportion of the variance (1.8%) in Emotional Exhaustion, work stressors explained more of the variance (41.5%). Specifically, nurses working full-time reported higher levels of Emotional Exhaustion than nurses working part-time or casually. Similar to De Rijk et al's (1998) findings, it is probable that for full-time nurses, exposure to the same stressful situations on a daily basis strengthens their propensity to burn out.

Role Overload, Job Conflicts and Role Boundary were the main determinants of Emotional Exhaustion, with Role Overload explaining most of the variance. These findings are supported by the work of Jenkins and Elliot (2004) and suggest that Emotional Exhaustion is strongly associated with work pressures that directly increase the amount of effort needed to do the job (Cordes et al 1997). Nurses are regularly exposed to multiple stressful work conditions (eg. not having enough staff to adequately provide necessary services, supervising the performance of less experienced workers) and it could be assumed that nurses must consistently maintain a high level of effort in order to meet the everyday demands of their job. Furthermore, the conflict between meeting the demands imposed by the organisation and the needs of the individual patient must certainly increase Emotional Exhaustion (Gil-Monte et al 1995).

Age (10%) and work stressors (20%) both explained a significant proportion of the variance in Depersonalisation. Supporting Koivula et al's (2000) finding, younger nurses reported higher levels of Depersonalisation than older nurses. Schaufeli (1999) proposed that the greater incidence of burnout among younger staff may be caused by a 'reality shock' or identity crisis due to unsuccessful occupational socialisation.

Role Boundary and Professional Uncertainty were the main determinants of Depersonalisation, with Role Boundary explaining more of the variance.

Gil-Monte et al (1995) found conflicting role demands to be a significant predictor of Depersonalisation. These researchers proposed that Depersonalisation is a defence mechanism developed by health care professionals to cope with conflicting role demands and the unpredictability and uncertainty associated with treating patients.

Role Boundary and Role Ambiguity were the main determinants of reduced Personal Accomplishment, with Role Boundary explaining most of the variance. Cash (1989) proposed that employees associate their ability to handle many roles at the one time with personal competence. When an employee is unable to meet these demands they may feel inadequate and consequently develop feelings of diminished personal accomplishment. In addition, Cordes and Dougherty (1993) argue that when one feels unsure of what is expected of one's performance or if little or no feedback is given, it difficult for employees to perceive they are performing at an optimal level. Employees may begin to feel incompetent and start to doubt their ability to cope with extra work demands (Jackson et al 1986).

Based on these findings, it seems pertinent to target younger nurses and nurses working full-time when implementing interventions to prevent burnout. The present study found that generic role stressors are stronger predictors of burnout than job-specific work stressors. Perhaps burnout is primarily attributed to demands in which nurses have relatively little control (eg. multiple, conflicting pressures, ambiguous role expectations, unpredictability associated with patients). Future research should explore the influence of nurses' perceptions of work stress controllability on burnout.

Effects of Work Support on Burnout

Evidence for main effects of work support on burnout was limited. Supervisor Support had a small, but significant main effect on Depersonalisation and Personal Accomplishment. Co-worker Support did not have a significant main effect on the burnout components. Perhaps this is because nursing colleagues are not in a position of power to alter or

change the working situation at hand. Finally, the present study found no evidence of a significant buffering effect of work support on burnout in accord with several studies (El-Bassel et al 1998; Beehr et al 1996; Bourbonnais et al 1998). According to Cutrona and Russell (1990) the buffering effect of social support will only occur if the support available addresses the needs of the situation. Perhaps nursing supervisors and/or nursing colleagues do not have adequate resources or funds to reduce the multiple, often conflicting and somewhat ambiguous demands associated with the nursing role. These issues may be best resolved at a management level.

As the present study however is limited by the use of cross-sectional, self-report surveys, no firm conclusions can be made with regard to causation. Some caution should be taken when interpreting the findings in relation to the nursing population because participants were recruited from a small catchment area and some nursing divisions comprised a small number or respondents. Furthermore, the current study examined only work support. It may be that for nurses, non-work support (ie. family and friends) is more effective than work support in buffering burnout.

CONCLUSION

In the present study, the findings demonstrated that younger nurses and nurses working full-time are particularly vulnerable to burnout. Broad demands of the nursing role have a greater influence on burnout than specific aspects of the nursing job. Supervisor Support is an important coping resource in minimising the effects of Depersonalisation and reduced Personal Accomplishment. Whilst further research is required in determining how supervisor support affects the level of strain experienced by nurses, it is probable that supervisors are in a better position to assist nurses in coping with stressful situations than their nursing colleagues. Together, the results point to the need for organisational interventions aimed at ameliorating the increasing and competing demands associated with the nursing

role. Furthermore, nursing supervisors may assist nurses to better manage their workload by educating nurses about the boundaries of their work and clearly defining role expectations.

REFERENCES

Aiken, L.S. and West, S.G. 1991. *Multiple regression: testing and interpreting Interactions*. Newbury Park, California: Sage Publications.

Akroyd, D., Caison, A. and Adams, R. 2002. Patterns of burnout among USA radiographers. *Radiologic Technology*, 73(3):215-223.

Altun, I. 2002. Burnout and nurses' personal and professional values. *Nursing Ethics*, 9(3):269-278.

Bakker, A.B., Killmer, C.H., Siegrist, J. and Schaufeli, W.B. 2000. Effort-reward imbalance and burnout among nurses. *Journal of Advanced Nursing*, 31(4):884-891.

Beehr, T.A., Jex, S.A., Stacy, B.A. and Murray, M.A. 2000. Work stressors and co-worker support as predictors of individual strain and job performance. *Journal of Organizational Behaviour*, 21(4):391-405.

Beehr, T.A., Stacy, B.A., Murray, M.A. and Jex, S.M. 1996. *Work stress and co-worker support as predictors of individual strain and job performance*. Paper presented at the annual meeting of the Academy of Management. Cincinnati, Ohio, USA.

Bourbonnais, R., Comeau, M., Vézina, M. and Dion, G. 1998. Job strain, psychological distress, and burnout in nurses. American *Journal of Industrial Medicine*, 34(1):20-28.

Cash, D. 1989. A study of the relationship of demographics, personality, and role stress in burnout in intensive care unit nurses. *Dissertation Abstracts International*, 49(9):2585.

Cordes, C.L. and Dougherty, T.W. 1993. A review and integration of research on job burnout. *Academy of Management Review*, 18(4):621-656.

Cordes, C.L., Dougherty, T.W. and Blum, M. 1997. Patterns of burnout among managers and professionals: a comparison of models. *Journal of Organizational Behaviour*, 18(6):685-701.

Cutrona, C.E. and Russell, D.W. 1990. Type of social support and specific stress: toward a theory of optimal matching, in B.R. Sarason, I.G. Sarason and G.R.Pierce (eds) *Social support: an international view*. New York: Wiley.

De Rijk, A.E., LeBlanc, P.M., Schaufeli, W.B. and De Jonge, J. 1998. Active coping and need for control as moderators of the demand-control model: effects on burnout. *Journal of Occupational and Organizational Psychology*, 71(1):1-18.

Duckett, S.J. 2004. *The Australian health care system*. (2nd edn). Victoria, Australia, Oxford: University Press.

El-Bassel, N., Guterman, N., Bargal, D. and Su, K. 1998. Main and buffering effects of emotional support on job and health-related strains: a national survey of Israeli social workers. *Employee Assistance Quarterly*, 13(3):1-18.

Ellis, B.H. and Miller, K.I. 1994. Supportive communication among nurses: effects on commitment, burnout and retention. *Health Communication*, 6(2):77-96.

Gil-Monte, P.R., Valcarcel, P. and Zornova, A. 1995. Role stress: burnout antecedents in nursing professionals, in J.M. Peiro and

F. Prieto (eds). *Work and Organizational Psychology*. London: Taylor and Francis.

Gillespie, M. and Melby, V. 2003. Burnout among nursing staff in accident and emergency and acute medicine: a comparative study. *Journal of Clinical Nursing*, 12(6):842-851.

Greenglass, E. and Burke, R.J. 2002. Hospital restructuring and burnout. *Journal of Health and Human Services Administration*, 25(1):89-114.

Harris, M., Gavel, P. and Conn, W. 2002. Planning Australia's hospital workforce. *Australian Health Review*, 25(3):61-77.

Iacovides, A., Fountoulakis, K., Moysidou, C. and Ierodiakonou, C. 1997. Burnout in nursing staff: a clinical syndrome rather than a psychological reaction? *General Hospital Psychiatry*, 19(6):419-428.

Jackson, S.E., Schwab, R.L. and Schuler, R.S. 1986. Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology*, 71(4):630-640.

Jenkins, R. and Elliot, P. 2004. Stressors, burnout and social support: nurses in acute mental health settings. *Journal of Advanced Nursing*, 48(6):622-631.

Joiner, T.A. and Bartram, T. 2004. How empowerment and social support affect Australian nurses' work stressors. *Australian Health Review*, 28(1):56-64.

Kilfedder, C.J., Power, K.G. and Wells, T.J. 2001. Burnout in psychiatric nursing. *Journal of Advanced Nursing*, 34(3):383-396.

King, L.A., Mattimore, L.K., King, D.W. and Adams, G.A. 1995. Family support inventory for workers: a new measure of perceived social support from family members. *Journal of Organizational Behaviour*, 16(3):235-258.

Koivula, M., Paunonen, M. and Laippala, P. 2000. Burnout among nursing staff in two Finnish hospitals. *Journal of Nursing Management*, 8(3):149-158.

Llyod, P.J., Johnstone, P.L. and Dwyer, J. 2002. Managing and leading change, in M.G. Harris (ed). *Managing health services: concepts and practice*. NSW, Australia: MacLennen and Petty.

Maslach, C. and Jackson S.E. 1986. *Maslach Burnout Inventory Manual*. (2nd edn). Palo Alto, California: Consulting Psychologists Press.

Maslach, C., Jackson, S.E. and Leiter M. 1996. *Maslach Burnout Inventory Manual*. (3rd edn). Palo Alto, California: Consulting Psychologists Press.

Osipow, S.H. and Spokane, A.R. 1987. *Manual for the Occupational Stress Inventory*. Odessa, Florida: Psychological Assessment Resources.

Raiger, J. 2005. Applying a cultural lens to the concept of burnout. *Journal of Transcultural Nursing*, 16(1):71-76.

Ray, E.B. and Miller, K.I. 1994. Social support, home/work stress, and burnout: who can help? *Journal of Applied Psychology*, 30(3):357-373.

Schaufeli, W.B. 1999. Burnout, in J. Firth-Cozens and R.L. Payne (eds). *Stress in health professionals*. New York: John Wiley and Sons.

Schaufeli, W.B. and Janczur, B. 1994. Burnout among nurses: a Polish-Dutch comparison. *Journal of Cross-Cultural Psychology*, 25(1):95-113.

Shinn, M., Wong, N.W., Simko, P.A. and Ortiz-Torres, B. 1989. Promoting the well-being of working parents: coping, social support, and flexible job schedules. *American Journal of Community Psychology*, 17(1):31-55.

Spooner-Lane, R. 2004. *The influence of work stress and work support on burnout in public hospital nurses*. Unpublished PhD Thesis. Queensland University of Technology, Queensland: Australia.

Spooner-Lane, R. and Patton, W. 2005. *Validation of the Health Professions Stress Inventory with a sample of public hospital nurses*. Unpublished manuscript. Queensland University of Technology, Queensland: Australia.

Tabachnick, B.G. and Fidell, L.S. 1996. *Using multivariate statistics*. (3rd edn). New York: HarperCollins.

Turnipseed, D.L. and Turnipseed, P.H. 1997. A bicultural analysis of the cost of caring: nursing burnout in the United States and the Philippines. *Career Development*, 2(4):180-188.

Wolfgang, A. 1988. The Health Professions Stress Inventory. *Psychological Reports*, 62(1):220-222.

Developing a tool to measure 'magnetism' in Australian nursing environments

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ABSTRACT

This paper describes the development of an Australia-specific instrument that provides a valid and reliable measure of magnet features in Australian health facilities and is a key development in the ongoing application of the magnet concept in Australia.

The magnet hospital concept, developed in the United States of America (USA) in the early eighties, identified characteristics successful in attracting and retaining nursing staff. The nursing profession in Australia is currently focused on issues of recruitment and retention; therefore it is relevant and timely to consider the significance of the magnet concept to Australian health facilities.

The project was undertaken in two stages: one using focus groups to revise the tool for use in Australia; and a second, using a questionnaire to test the reliability, validity and usability, of this revised tool, in a sample of Australian hospitals.

The focus groups identified three main issues requiring modification to the existing tool namely: language; contextual meaning; and, presentation. The data from the questionnaire shows that the analysis of the Australian version of the magnet measurement tool retained acceptable levels of internal consistency. The results of the pilot indicate that respondents were clearly positive in their responses related to the three subscales of: 'quality of care'; 'management, leader and support'; and 'nurse-physician relationships'; while 'nurse participation' and 'staff and resources' subscales were rated less positively by the respondents.

This means the tool is appropriate to use in an Australian context and is able to produce specific and reliable data on magnet features in Australian health facilities. The significance of this research is that it informs the promotion of organisational change that has been shown to facilitate nursing staff retention and positive health outcomes in Australia.

INTRODUCTION

Nurses are leaving the nursing profession in large numbers and new graduates often stay for a limited period of time. It is a matter of priority for health systems to identify possible solutions to the issues of recruitment and retention if the current nursing shortages are to be resolved.

There is considerable evidence to show the success of magnet hospitals in attracting and retaining nursing staff (Kramer 1990; Kramer and Hafner 1989; Kramer and Schmalenberg 1988a, 1988b; McClure et al 1983). In particular magnet hospitals have also been shown to have consistently produced better outcomes for staff and patients, as demonstrated in job satisfaction and quality patient care, than non-magnet hospitals (Aiken et al 1997, 1994).

The lessons learned from the global research into the magnet hospital concept are significant to Australia, as a basis for addressing the immediate needs for the recruitment and retention of professional nursing staff (Ganley 1991; Torrence and Wilson 2000). Participatory management, effective leadership, professional practice environments (illustrated by the existence of quality care, positive staffing relationships and autonomy of practice amongst nursing staff) and clearly defined career development pathways, are key issues in the recruitment and retention of nursing staff. (Aiken et al 1994; Kramer and Hafner 1989). Essentially, these are the features of magnetic hospitals (McClure et al 1983).

The purpose of this article is to provide an overview of a research project undertaken to develop a tool to measure elements of magnetism, within Australian hospitals.

BACKGROUND MAGNET HOSPITAL CONCEPT

The original Magnet Hospital study, established that hospitals successful in recruiting and retaining nursing staff possessed core characteristics (McClure et al 1983). Research by Kramer and her colleagues, building on this work, established that magnet hospitals demonstrate a lower level of nurse turnover and higher levels of job satisfaction for the nursing staff. (Kramer and Schmalenberg 1988a, 1988b, 1991a, 1991b). Kramer and Hafner (1989) developed The Nursing Work Index (NWI) to measure nursing values in relation to job satisfaction and productivity. Further research by Aiken and associates into the Magnet Hospital concept built on the previous research refining the NWI to the Nursing Work Index-Revised (NWI-R) tool as a universal measure of hospital nursing practice environments (Aiken et al 1999, 1997, 1994).

The USA experience has demonstrated that the presence of magnet features referred to above, have an impact on the organisational and managerial structures of hospitals. Furthermore, a review by Aiken and Havens (2000) demonstrated that magnetic features have a significant impact on nursing staff satisfaction and competency and in turn patient outcomes. Thus, the practices that create a positive working environment for nursing staff are essential in improving the quality of patient care (Needleman et al 2001).

In recent times the UK government has also recognised the imperative to address the issue of the job satisfaction of nurses to facilitate their retention. They have sought to do so by increasing organisational flexibility, professional autonomy, continuing education and a progressive career structure for nurses - all elements of the magnet concept. As a result, Buchan (1999, 1997, 1994) argues that the magnet hospital concept is as relevant an approach to address the challenges facing the health system in the UK, as it has been in the USA, despite the structural differences in the two health systems.

Nursing shortages and reported dissatisfaction by nurses are not limited to the USA and the UK. Aiken et al (2001) report from an extensive survey of 43,000 nurses in the United States, Canada, England, Scotland and Germany, that despite the differences in the health systems the fundamental issues are the same. Thus, western countries appear to be faced with a long-term shortage of professional nurses as a result of the high levels of job dissatisfaction, an ageing workforce and the inability to retain new

graduates. Aiken et al (2001) accurately state that the challenges facing nurses are similar all over the world and that solutions found to successful in one country are likely to work in others. The magnet concept presents itself as such a solution.

In Australia, like other Western countries, there has been an identified shortage of practicing nurses (Preston 2002). In 1995 the NSW Minister for Health established a task force to look into nursing recruitment and retention. The report, published in 1996 by the New South Wales Department of Health on nursing recruitment and retention, included a number of recommendations based on the issues that emerged from the surveys (NSW Department of Health 1996). It highlighted the significance of flexible work practices, management of work practices and staffing, and access to professional development, as ways of improving staff recruitment and retention. Again, it can be seen that a major review produced recommendations that reflect the characteristics of magnet hospitals.

In summary then, the global research and related literature on recruitment and retention of nurses in contemporary society, leads one to conclude that when the elements of magnet hospitals are present in the structure and culture of an organisation, recruitment and retention of nurses improve, as do patient outcomes.

STUDY

Project Aim

The aim of this research project was to develop a tool capable of measuring the magnetism of hospitals in an Australian context. It made sense to do this using a modification of the established, USA based tool, the Nursing Work Index - Revised (NWI-R) devised by Aiken and Patrician (2000) and Lake (2002). In the longer-term, the intention is to use this tool to audit magnetism within Australian hospitals, with the aim of providing feedback to managers wishing to enhance the magnetism of their organisation.

The significance of this project is that it will make possible the development of a credible, validated tool, to reliably measure magnet features in Australian health facilities, which can then be used in the promotion of organisational change that has been shown to facilitate positive health outcomes for patients and enhance the recruitment and retention of nurses.

Research Method

The project was undertaken in two stages: one using focus groups to revise the tool for use in Australia; and a second, using a questionnaire to test the reliability, validity and usability, of this revised tool, in a sample of Australian hospitals. Ethics approval was achieved from the Human Research Ethics Committee of the University of Wollongong (HE03/382).

Original Tool Development

The original NWI was developed by Kramer and Hafner (1989) from the research on magnet hospitals for the purpose of capturing a clear measure of the organisational attributes of a professional practice environment. It has subsequently been defined as a gauge for determining the extent to which a nursing care environment can be considered an environment of professional practice (Aiken and Patrician 2000). This instrument and the subsequently developed tool (NWI-R) have consistently been used to measure the organisational attributes of a professional nursing practice environment (Aiken et al 2001, 1999, 1994; Aiken and Havens 2000).

Face and content validity of the tool and subsequent versions were established using three methods:

1. development from the magnet hospital characteristics;

2. review of literature on job satisfaction and work value instruments; and

3. critique by the magnet hospital researchers.

Furthermore, the consistent use of this instrument and the statistical support for this tool throughout the literature confirms its construct validity in the assessment of magnet organisational structures (Lake 2002). Internal consistency of the NWI-R has been established using the Cronbach's Alpha statistic, with the various subscales demonstrated as being capable of reliable aggregation with

internal consistency (Lake 2002; Aiken and Patrician 2000).

Stage 1: Focus Groups

Four focus groups were conducted to review the previously validated USA -related NWI-R tool and make recommendations for the development of a revised Australian tool. The focus groups incorporated numbers between eight and ten nurses from a broad representation of the nursing profession, including representatives from aged care, acute care and community, and included both public and the private sectors representatives. Focus groups were used as they offered an appropriate method for allowing a cross representative group of nurses in Australia the opportunity to review the USA tool and make recommendations for the development of an Australian version (Kingry et al 1990).

Stage 2: Questionnaire

This stage involved the piloting of the 'Australianised' tool, the Nursing Work Index- Revised: Australian (NWI-R:A) in a sample of hospitals in the Illawarra region of New South Wales, Australia. It was contained within an anonymous questionnaire sent to registered nursing staff at these facilities, with the aim of measuring the magnetic characteristics present in the participants' workplace(s) along with biographical data and data related to job satisfaction and the nurse's intention to stay in that facility in the future.

The statistical analysis of the Australian tool replicated the work by Lake (2002) and the statistical support for this tool throughout the literature as a valid instrument in the review of magnet organisational structures. The tool includes five subscales providing a profile of the key features in magnet hospitals. Scoring of the scales was undertaken using a Likert scale of responses ranging from one to four, that is, from strongly agree (1) to strongly disagree (4).

Participants

Registered nurses, representing a variety of clinical areas were included in the purposive sample for the focus groups of stage one. Stage two of the project was also directed toward registered nurses. The

questionnaires were circulated to staff through the payroll system with responses being mailed back to the researcher using a stamped, pre-addressed envelope. This maintained consistency of sample inline with the development and research use of the tool NWI-R, which focused on registered nurses only. It also ensured privacy and confidentiality.

Focus Groups (Stage 1) Results

The focus groups identified three main issues requiring modification to the NWI-R, namely: language; contextual meaning; and, presentation. In essence they recommended that the language be amended to reflect the Australian idiom and the cultural and organisational context of Australian hospitals (eg. "We don't have Nursing Directors here") as well as making suggestions about type-face and font size, for ease of readability.

A feedback session for focus group participants was undertaken to discuss the overall conclusions from the focus groups and to provide feedback to the group(s) to ensure that relevant changes had been made. Comments from this session confirmed that the revisions made, accurately reflected the content of the focus group sessions, and that the interpretations made by the researcher were valid and had been appropriately managed. The feedback from the focus groups was used as the basis for the development of the Australian version the NWI-R:A.

Questionnaire (Stage 2) Results

The development of the NWI-R:A used the recommendations of the focus group sessions in stage one of the project to inform the modifications made to the tool.

Box 1 presents the results of the Cronbach's Alpha test of internal consistency for the NWI-R:A. This data shows that for each of the five subscales used in the analysis of the instrument, the Australian version of the tool retained the significant levels of internal consistency, found in the verified tool (Cronbach's Alpha 0.71-0.84) by Lake (2002). These subscales were titled: 'quality of care'; 'management, leadership and support', 'nurse participation'; 'staff

and resources'; and, 'nurse-physician relationships'. Therefore, these subscales reflect magnetic features of a hospital environment, having drawn on the original magnet hospitals research.

Box 1: Showing internal consistency for the results NWI-R:A

1. Quality of care
- Items: 7;22;28;30;34;36;37;43; and 44
- Cronbach Alpha: 0.7331

2. Management, leadership and support
- Items: 4;13;18; and 32
- Cronbach Alpha: 0.7060

3. Nurse participation
- Items: 8;9;14;23;26;33;35a;38; and 40
- Cronbach Alpha: 0.8709

4. Staff and resources
- Items: 1;11;12; and 16
- Cronbach Alpha: 0.8270

5. Nurse-physician relationship
- Items: 2;24; and 35b
- Cronbach Alpha: 0.7724

These results show that the NWI-R:A has statistically acceptable levels of internal consistency as all the five subscales had Cronbach's alpha ratings above 0.7 (Dunn 1989).

The author would like to acknowledge the support of the statistical department of the University of Wollongong in this analysis.

Stage 2: Pilot Survey Results

The NWI-R:A was piloted at a general district hospital in regional NSW, Australia. The sixty-four participants involved in the second stage of the research project were all the registered nursing staff, casual and part-time, of the participating hospital. The reviewed instrument (based on the recommendations of the focus group sessions) was used in the second stage of the survey. The anonymous survey canvassed the population of registered nursing staff: full, part time and casual at this hospital (N=187). There were 64 respondents, a response rate of 34.22%. This rate was not as high as anticipated by the researcher,

however this can be considered as a result of the challenge of accessing this population through what have been identified by local nursing staff subsequently as ineffective modes of communication, namely many staff do not regularly open pay-slip envelopes. Almost at the same time, management undertook a similar survey.

Box 2: Showing frequency results of subscales for the NWI-R:A

1. Quality of care
- 62.7% of participants recorded positive scores

2. Management, leader and support
- 66.7 % positive scores

3. Nurse participation
- 46.3% of the respondents indicated positive scores

4. Staff and resources
- 24.6% indicated positive scores

5. Nurse-physician relationship
- 70.3% positive scores

This data shows that respondents were clearly positive in their responses related to the three subscales of: 'quality of care'; 'management, leadership and support'; and 'nurse-physician relationships', as they received positive scores (1 or 2) from over sixty percent of the nurses surveyed. 'Nurse participation' had less than half of the respondents indicating positive responses, while the 'staff and resources' subscale was rated positively by less than 25% of the respondents.

Demographic Data

The average age of the respondents was 41 years; ninety-two percent (92%) were female. Forty-five percent (45%) of the sample were full-time employees, fifty-two percent (52%) were part-time and three percent (3%) were employed on a casual basis.

DISCUSSION

This project succeeded in its aim of developing a tool, consistent with earlier versions, for measuring magnetism in Australian hospitals. Over time, this will

allow the researcher to audit the magnet features of health institutions, along with recommendations as to how they can become more 'magnetic'.

Consideration of the data generated by the NWI-R: A on the magnet features of the facility surveyed, identified the respondents' views of the magnetism of their workplace. It can be concluded from this data that the areas of 'quality of care', 'management, leadership and support'; and 'nurse-physician relationships' were viewed positively by the nursing staff at the pilot hospital.

In responding positively to the items for 'quality of care' the nursing staff were stating that they considered the relationships established with patients in their areas were productive and contributed to a high standard of care. Favourable results in the area of 'management, leadership and support', indicated that the respondents considered their nursing leaders to be competent and possessed relevant professional profiles. The most highly rated magnet feature by respondents was that of 'nurse-physician relationships', indicating they were very satisfied with the quality and quantity of their interactions with medical staff. From these data then, we can see that the respondents felt that they: worked in clinical environments characterised by good levels of patient care; were supervised by credible, effective managers; [and] enjoyed positive professional relationships with medical colleagues.

The aspects of the hospital environment that the survey respondents indicated were lacking were in relation to 'nurse participation' and 'staff and resources'. In relation to 'nurse participation' the respondents indicated there were insufficient opportunities for them (the nursing staff) to contribute to decision making within the hospital. The area of most concern for the nursing staff in this pilot project was clearly 'staffing and resources', with responses indicating they considered the resources (human and environmental) they had to work with and within, were inadequate.

In considering these results of the pilot study it could be suggested that some anomalies exist in the respondents' reported views of the magnet features of the hospital where they were employed. It is interesting, for example, that the respondents described 'quality of care', 'management, leadership and support'; and 'nurse-physician relationships' positively, while 'nurse participation' and 'staff and resources' were considered inadequate. One would perhaps have expected to find that anyone who feels they provide a high standard of care would only feel able to do so with adequate resources. Similarly if people believe they are well supported by their leaders and managers and have good working relationships with medical colleagues, one would expect them to feel involved in decision-making.

What these data suggest however is that these nurses at least, felt a sense of satisfaction with the quality of care they provided whilst not having much of a say over what care was to be provided and perhaps in the absence of resources. They therefore managed to retain a sense of professional pride in their work in spite of a reported lack of resources and input into decision-making. It could be therefore that they were satisfied with the quality of care they provided, relative to what could reasonably be expected in the circumstances, rather than relative to 'optimal' levels of care.

It may also be that, for whatever reason, these respondents did not need to feel involved in clinical decision-making to feel fulfilled or to provide good care. This may have been different perhaps if they had not had positive relationships with medical colleagues or good quality nursing leadership. The implication of these data and the ensuing discussion is that it highlights the imperative to collect and collate qualitative data alongside the NWI-R:A so as to allow meaningful interpretation of the data and thus useful advice to be given to managers, regarding increasing magnetism in their jurisdiction(s).

CONCLUSION

This work, undertaken in the development of the NWI-R:A tool, one that is relevant to the Australian context, allows research into magnet organisations to move forward. The results for Nursing Work

Index-Revised: Australian (NWI-R:A) have shown that the Australian version of the tool produced statistically acceptable internal consistency scores. This means the tool is appropriate to use in an Australian context and is able to produce specific and reliable data on magnet features in Australian health facilities. The next step in this research program will be to use the tool to measure magnetism in a variety of health contexts in Australia. The future includes the development of feedback content and strategies so as to allow the provision of constructive advice to managers about how they can improve elements of magnetism within their jurisdiction(s). Given the impact of magnetism on outcomes for both staff and patients, the significance of this work for Australian nursing seems obvious.

REFERENCES

Aiken, L.H., Clarke, S.P., Sloane, D.M., Sochalski, J.A., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A.M. and Shamian, J. 2001. Nurses' reports on hospital care in five countries. *Health Affairs*, 20(3):43-53.

Aiken, L.H. and Havens, D.S. 2000. The magnet nursing services recognition program: a comparison of two groups of magnet hospitals. *American Journal of Nursing*, 100(3):26-35.

Aiken, L.H. and Patrician, P.A. 2000. Measuring organisational traits of hospitals: the Revised Nursing Work Index. *Nursing Research*, 49(3):146-153.

Aiken, L.H., Sloane, D.M., Lake, E.T., Sochalski, J. and Weber, A. 1999. Organisation and outcomes of inpatient AIDS care. *Medical Care*, 37(8):760-772.

Aiken, L.H., Sloane, D.M. and Lake, E.T. 1997. Satisfaction with inpatient AIDS care: a national comparison of dedicated and scattered-bed units. *Medical Care*, 35(9):948-962.

Aiken, L.H., Smith, H.L. and Lake, E.T. 1994. Lower Medicare mortality among a set of hospitals known for good nursing care. *Medical Care*, 32(8):771-787.

Buchan, J. 1999. Still attractive after all these years? Magnet hospitals in a changing health care environment. *Journal of Advanced Nursing*, 30(1):100-108.

Buchan, J. 1997. Magnet hospitals: what's the attraction. *Nursing Standard*, 12(7):22-25.

Buchan, J. 1994. Lessons from America? US magnet hospitals and their implications for UK nursing. *Journal of Advanced Nursing*, 19(2):373-384.

Dunn, G. 1989. *Design and analysis of reliability studies*. London: Edward Arnold.

Ganley, H. 1991. Insight into magnet hospitals. *The Lamp*. April: pp.22-24.

Kingry, M.J., Tiedje, L.B. and Friedman, L.L. 1990. Focus groups: a research technique for nursing. *Nursing Research*, 39(2):124-125.

Kramer, M. and Schamlenberg, C.1991a. Job satisfaction and retention: insights for the '90s part 1. *Nursing*. 21(3):50-55.

Kramer, M. and Schamlenberg, C.1991b. Job satisfaction and retention: insights for the '90s part 2. *Nursing*. 21(4):51-55.

Kramer, M. 1990. The Magnet hospitals: excellence revisited. *Journal of Nursing Administration*, 20(9):35-44.

Kramer, M. and Hafner, L.P. 1989. Shared values: impact on staff nurse job satisfaction and perceived productivity. *Nursing Research*, 38(3):172-177.

Kramer, M. and Schamlenberg, C. 1988a. Magnet hospitals: part 1 institutions of excellence. *Journal of Nursing Administration,* 18(1):13-23.

Kramer, M. and Schamlenberg, C. 1988b. Magnet hospitals : part 2 institutions of excellence. *Journal of Nursing Administration*, 18(2):1-19.

Lake, E. 2002. Development of the practice environment scale of the Nursing Work Index. *Research in Nursing and Health*, 25(3):176-188.

McClure, M.L., Poulin, M.A., Sovie, M.D. and Wandelt, M.A. 1983. *Magnet hospitals: attraction and retention of professional nurses.* Kansas City, MO: American Nurses Association.

Needleman, J. Buerhaus, P. Mattke, S. Stewart, M. and Zelevinsky, K. 2001. *Nursing staffing and patient outcomes in hospitals*. USA Department of Health and Human Services.

New South Wales Department of Health: 1996. *Nurse recruitment and retention taskforce*. Available from: http://www.health.nsw.gov.au/nursing/rrrecs.html.

Preston, B. 2002. *Australian nurse supply and demand to 2006: A projections model and its application*. Report prepared for the Australian Council of Deans of Nursing. Melbourne.

Torrance, C. and Wilson, M. 2000. Magnet hospitals: the truth behind the concept. *Nursing Review,* July p.11.

Understanding the importance of effective orientation: what does this mean in psychiatric graduate nurse programs?

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orientation, graduate nurse, psychiatry, psychiatric/mental health nursing, nursing

ABSTRACT

Objective
The main purpose of this project was to examine and describe specialist psychiatric graduate nurse programs (PGNP) in Victoria, Australia.

Design
This project used thematic analysis to review information obtained from individual and focus group interviews.

Setting
Twenty one area mental health services (AMHS) in Victoria, Australia participated in this project.

Subjects
Participants included graduate nurses, nurse educators, nurse unit managers, ward-based clinical nurses, consumer consultants, mental health nurse academics and future graduates.

Main Outcome
To describe current PGNP practices, identify and make recommendations for improvements.

Results
Many categories relating to PGNP were examined however for the purposes of this paper issues regarding orientation are discussed. Effective orientation was identified as crucial to graduates confidence and learning in the psychiatric setting.

Conclusions
A substantial amount of information was gathered specific to orientation practices in PGNP. Much of this argues for the need to have a formal, structured and supportive orientation period in PGNP.

INTRODUCTION

The development of formal orientation programs in health is critical in the recruitment and retention of nursing staff. The importance of effective programs is especially so for graduate nurses beginning their career. Literature demonstrates that a comprehensive, well thought out program can reduce adjustment periods for novice nurses, minimise turnover and establish a solid foundation for a productive and lengthy career (Marcum and West 2004).

Formal graduate nurse programs (GNP) in general nursing are commonplace and have existed in their current form for many years. In psychiatric nursing in Victoria, the existence of a more systematic approach to GNP is relatively new, having only existed in their current state for the past three to four years since the introduction of specific funding. However some mental health services were offering specific psychiatric nurse GNP prior to the availability of allocated funding. Although many studies have examined graduate nurse orientation, few describe the components necessary when making the transition to mental health.

The purpose of this paper is to examine available literature on orientation practices in nursing and discuss this in relation to outcomes obtained from a review and evaluation of PGNP. Although orientation is multipurpose, a number of recurrent themes emerged as priorities from both the literature and findings from this project. The need for adequate adjustment time and the need for effective support processes during the orientation phase dominate the literature (Ross and Clifford 2002; Lavoie-Tremblay et al 2002; Boychuck-Duchscher 2001; Olsen et al 2001; Charnley 1999).

ORIENTATION

Definition

To 'orientate' is to adjust to new circumstances, surroundings and or facts (Macquarie Dictionary 2000). Anecdotally the term orientation used in the nursing context, refers to a course introducing a new situation or environment. In GNP, the main reasons for orientation are to enhance skills and knowledge in the new graduate, to facilitate the integration of theory and practice and to ease the new graduates' transition from university life to the clinical setting. Much of the recent literature exploring GPN orientation describes various approaches to learning during this period such as competency-based programs and/or self-directed modules completed over time (Fey and Miltner 2000; Connolly and Hoffart 1998).

The language used to describe the orientation period and or programs also differs in the literature; this has the potential to create confusion for the consumer of research. For example some programs are referred to as internships (Owens et al 2001); other programs are just described as transition stages (Ross and Clifford 2002; Maben and Clark 1998). Research has also focused on the socialisation and support of graduate nurses during this time and emphasises the critical nature of both these concepts (Godinez et al 1999; Boyle et al 1996). What becomes obvious on examination of the literature is the lack of a systematic approach to nursing orientation. Connelly and Hoffart (1998) report on a variety of criteria used, for example support issues, turnover rates and levels of satisfaction, but highlight the lack of theoretical frameworks available to study nursing orientation.

Effective orientation

Although site or specialty specific objectives may exist during an orientation period, there are a number of recurrent themes through the literature identified as essential components. These include formal processes for adequate graduate support, some form of educational offerings and consideration of the adjustment required by the graduate; especially in terms of time taken to complete tasks, workload allocation and patient care (Ross and Clifford 2002; Lavoie-Tremblay et al 2002; Boychuck-Duchscher 2001; Fey and Miltner 2000; Olsen et al 2001; Charnley 1999).

In Australia, government funded GNP are quite new

to the area of psychiatric or mental health nursing. A sound GNP provides the context within which health care providers can assist graduates with the transition from undergraduate nursing student to professional nurse (Department of Human Services 1994). Thus, GNP in mental health provide services with the opportunity to promote the consolidation of existing knowledge, attitudes and skills and the development of necessary competencies for future practice. GNP also represents an important recruitment and retention strategy. These programs provide services with the ability to develop strategies that are geared to the local environment (ie rural versus metropolitan) and specific requirements of the field of psychiatric and mental health nursing.

Evidence from the field of general nursing indicates that the transition from undergraduate nursing student to professional nurse can be a stressful and difficult time for many graduates, particularly during the first three to six months (Clare et al 2002). Graduates are required to consolidate existing knowledge and skills, develop additional skills and become accustomed to the organisational environment (Heslop et al 2001). Graduates typically require a great deal of support to assist them during the transitional phase (Ross and Clifford 2002); positive precepted experiences and other transition support systems appear to be of particular importance (Clare et al 2002; Boyle et al 1996; Tradewell 1996).

There is a dearth of literature relevant to graduates and specialist GNP in the area of mental health nursing; however it is possible nurses may experience added difficulties during their transitional year (McCabe 2000; Prebble and McDonald 1997). The content of many undergraduate academic nursing programs is biased toward the general nursing field (Stevens and Dulhunty 1997). Undergraduate nursing students are typically exposed to little in the way of knowledge and skills relevant to mental health nursing and gain limited or no clinical experience. Consequently, the nature of theoretical and clinical support required to assist the transitional process

of graduates in the field of mental health nursing may be substantially different to that required by graduates in the general nursing field. These factors raise particular issues when attempting to construct an effective and comprehensive orientation to psychiatry.

Health care providers that mismanage the early professional experiences of graduates run the risk of failing to retain them within the service (Tradewell 1996) and could potentially discourage them from pursuing a career in mental health nursing. Australian health care providers are facing a shortage of new graduates and experienced practitioners in both specialty areas and general nursing (Department of Health and Aged Care 2000). Recruitment, as well as the failure to retain nurses recruited to the field, is a costly enterprise for health care providers. Evidence suggests that high turnover rates of new graduates are associated with the structure and content of basic educational programs and hospital orientation programs (Godinez et al 1999), as well as the organisational context of the hospital setting (Heslop et al 2001). Thus, the development and implementation of sound GNPs that are sensitive to these issues appears to be of particular importance to ensure their success as a recruitment and retention strategy.

PSYCHIATRIC GRADUATE NURSE PROJECT

The Centre for Psychiatric Nursing Research and Practice, School of Nursing, University of Melbourne, was engaged by the Mental Health Branch, Department of Human Services, Victoria, to conduct a state wide examination of PGNP in Victoria. The entire project was conducted over a twelve-month period with information derived from a range of sources. Examining orientation practices was a key component of this project.

Area Mental Health Services (AMHS) in Victoria are arranged geographically; there are twenty one in total across the state. Information about the PGNP was gathered from all twenty one AMHS, which varied in detail depending on the developmental stage of

the services' PGNP at the time. It is important to note that a large proportion of this information was accessed from adult mental health services where most of the PGNP focus existed at that time. Some PGNP did rotate graduates through specialty areas however the majority of experiences were located in adult mental health services.

Participants

Purposeful selection of participants was used during this project. The aim was to engage individuals with expertise in and/or direct professional experience relevant to Victorian PGNP; for example graduate nurses and nurse educators. A number of additional key stakeholders were also provided the opportunity to contribute to this project. These included nurse unit managers, ward-based clinical nurses, consumer consultants, mental health nurse academics and potential graduates.

Project Implementation

A project team was established to conduct the PGNP examination. This team consisted of a project manager, project officer, and research assistant. The project was also informed by the development of a liaison committee that met on a regular basis throughout the twelve month period. This committee consisted of identified key stakeholders in the field of mental health nursing, educators, and a consumer academic. Specific project objectives included an intensive review of GNP practices nationally and internationally; the identification of best practice models, including orientation practices; and the identification of structures that may assist AMHS in further development of GNP.

Individual interviews, focus groups and questionnaire developed during the initial stages of the project were used to gather information from AMHS personnel and other identified key stakeholders. This information was then analysed with a view to providing a more comprehensive understanding of current GNP practices in Victoria and suggest strategies for improvement. During this project Psychiatric Nurse Education teams were asked to elaborate on the orientation practices for psychiatric nurse graduates of their AMHS. There were some consistent themes across orientation in each of the twenty one AMHS.

Project Outcomes

A majority of the AMHS provided an introductory orientation block that consisted, to varying degrees, of formal education for mental health nursing, mandatory occupational health and safety sessions and/or an overview of the broader organisational structures. The degree of allocated supernumerary time also varied considerable between services; this included what was provided at the beginning of the graduate year and what was offered at the commencement of each clinical rotation. The duration of stated orientation periods ranged from three days to two weeks with additional days, usually one or two, provided in most areas at the commencement of subsequent clinical rotations.

A substantial degree of information regarding orientation practices was articulated during the individual interviews and focus groups. A number of the project participants expressed that orientation was not long enough for graduate nurse adjustment. However others considered that at times it was too long and did not allow the graduate to feel integrated within the team; this was related to their peripheral supernumerary role.

An additional issue that emerged as a consistent theme was insufficient structure in the early period of orientation. With the orientation period not being structured enough, the graduates in particular felt that not enough direction was communicated to other staff regarding their role. Confusion and inconsistency ensued across a number of services, especially those where documentation regarding roles did not exist. It was important for graduates that the other team members understood their capabilities and recognised their registered status as nurse.

Participants also commented that additional support and education in the areas of identifying, preventing and managing aggression and skills in mental state assessment early in the orientation

was critical to their confidence in the initial period. Consensus throughout the data further suggested that individualised support was important during initial orientation; however even where this was available early; adequate support was less available as the year progressed. The need for programs to rethink service commitment to orientation over time is reinforced in Puntil (2005). In addition, participant reference to accessing support included being aware of and having access to people designated in support roles. For example, graduate nurse program coordinators, clinical supervisors and preceptors. Participants strongly agreed that they should know who and how to contact support people and have listed secondary contacts organised in the absence of primary supports.

DISCUSSION

A number of central themes worthy of further discussion emerged from the project data. Many questions also remain unanswered. Firstly, who and what define the orientation period? How long should it be and how much is enough? The definition of orientation previously mentioned refers to an adjustment to circumstances, surroundings and facts (Macquarie Dictionary 2000). If the main reasons for graduate nurse orientation are to enhance skills and knowledge, facilitate the integration of theory and practice and to ease the new graduates' transition from university life to the clinical setting, then there are many challenges in adopting a one-size-fits-all approach. As identified in this project, great variation exists in graduates' perspective regarding what does or does not work for them. The biggest challenge is having a model that incorporates core elements common to most programs while including strategies to enhance individualised learning; ones that encourage graduates to work at their own pace.

Therefore, what might be the essential components of a PGNP orientation? Certainly mental health specific education during this initial period, transition time and coordinated support for graduates; but what types of models might be most appropriate?

Kersbergen and Hrobsky (1996) suggested a clinical pathways model for precepted clinical experiences that may facilitate more productive learning. The Victorian PGNP in this project all use preceptorship to varying degrees so the clinical pathways model may offer a structured way to not only enhance learning, but provide an individual approach to graduate development. Fey and Miltner (2000) advocate a competency based model for orientation that adopts three levels of competencies; core clinical competencies, specialty competencies and client care management competencies. This framework was designed within a twelve week orientation program and reported positive results; especially in terms of retaining new employees. Although the Victorian PGNP use competency assessments as a component of their approach, limited information was available regarding a specific orientation model that encompasses and or guides the entire process; a factor that could benefit from further research and evaluation. It is also unfortunate that literature proposing specific models, as in the two previously mentioned here, fail to discuss issues relating to cost efficiency and effectiveness of the models.

While considering models for orientation one must consider resource requirements. Are health services able to commit adequate resources to this activity? And is there evidence that indicates effective orientation influences long term gains for the service as well as the graduate? Although Fey and Miltner (2000) discuss the clear connection between a well resourced and relevant orientation program with improved retention rates and greater staff satisfaction, there is limited information on cost considerations.

Another major theme arising from this project was the concept of supernumerary status for graduates and the need to understand the specific purpose of supernumerary time. Supernumerary time is recognised as a period where the graduate does not have an allocated client load for whom they are specifically responsible. Most services in this project had mandated periods of supernumerary time but did

not have documented guidelines for its use. This left some graduates unsure about their responsibilities as they did not have a client load and were at times at a loss as to how they should effectively use this time. When the individual development of graduates and the variations in their confidence levels are considered, it is reasonable to expect that some may need more or less supernumerary time than others to become familiar with a new environment. In this project the time was commonly unstructured. There were few designated objectives that may have provided structure for this time; as a consequence some individuals felt isolated and on the periphery of the team, rather than a part of it.

Unfortunately guidance was not forthcoming from the literature as little could be located on the use of or purpose for, supernumerary time. There is a serious need to develop protocols around this area given the degree of role confusion and potential for graduates to feel isolated during this period. The following recommendations are made in consideration of both the project findings and available literature.

Recommendations

In reflecting on the findings of this project, the authors identified changes to policy, practice and education. This resulted in the following recommendations:

- The development of supernumerary guidelines in PGNP including the type and frequency of available support; specific learning objectives for this period; tools to document learning; and a clear and concise communications strategy for this period.

- The development of formal support structures more broadly to support the orientation period, especially critical in the first 2-3 months. For example, a specific support model with all facets documented.

- Specific education to augment current graduate nurse knowledge and skills in psychiatric/mental health nursing.

- The development of an organisation wide communication strategy to inform current staff on structure, processes and expectations of PGNP.

- Development of graduate role statements for organisation wide dissemination.

- Development of formal peer support groups, especially during initial orientation, that is given high priority by managers in terms of time relief to attend.

- Clinical journaling for graduates during orientation.

- The need to clearly define what is understood by the orientation period and to have this embedded in policy.

- Research into the effectiveness and efficiency of formal orientation programs in PGNP.

CONCLUSION

This paper has outlined a number of findings and recommendations from a twelve month examination of specialist psychiatric nurse graduate programs in Victoria, Australia. Available literature has been used to augment similar findings to the project outcomes, including identification of gaps requiring further research. Consensus exists between the literature and the project findings on the need for effective support and structure throughout the year, not purely in the initial stages of orientation. The types of models and processes that may facilitate effective orientation would benefit from further examination.

REFERENCES

Australia. Department of Health and Aged Care. 2000. *Rethinking nursing: national nursing workforce torum*. Canberra: Commonwealth Department of Health and Aged Care.

Australia. Department of Human Services. 1994. *Nursing education in Australian universities*. The report of the National Review of Nursing Education in the Higher Education Sector 1994 and Beyond. Canberra: Department of Human Services.

Boychuk-Duchscher, J. E. 2001. Out in the real world: newly graduated nurses in acute-care speak out. *Journal of Nursing Administration*, 31(9):426-429.

Boyle, D., Popkess-Vawter, S. and Tauton, R. L. 1996. Socialisation of new graduate nurses in critical care. *Heart and Lung: The Journal of Acute and Critical Care*, 25(2):141-154.

Charnley, E. 1999. Occupational stress in the newly qualified staff nurse. *Nursing Standard*, 13(29):33-36.

Clare, J., White, J., Edwards, H. and van Loon, A. 2002. *Curriculum, clinical education, recruitment, transition and retention in nursing*. Final Report. Adelaide, South Australia: School of Nursing and Midwifery, Flinders University.

Connelly, L. and Hoffart, N. 1998. A research based model of nursing orientation. *Journal of Nursing Staff Development*, 14(1):31-39.

Fey, M. and Miltner, R. S. 2000. A competency based orientation program for new graduate nurses. *Journal of Nursing Administration*, 30(3):126-132.

Godinez, G., Scheiger, J., Gruver, J. and Ryan, P. 1999. Role transition from graduate to staff nurse: a qualitative analysis. *Journal for Nurses in Staff Development*, 15(3):97-110.

Heslop, L., McIntyre, M., and Ives, G. 2001. Undergraduate student nurses' expectations and their self-reported preparedness for the graduate year role. *Journal of Advanced Nursing*, 36(5):626-634.

Kersbergen, A. L. and Hrobsky, P. 1996. Use of clinical map guides in precepted clinical experiences. *Nurse Educator*, 21(6):19-22.

Lavoie-Tremblay, M., Viens, C., Forcier, M., Labrosse, N., LaFrance, M. and Laliberte, D. 2002. How to facilitate the orientation of new nurses into the workplace. *Journal for Nurses in Staff Development*, 18(2):80-85.

Maben, J., and Clark, J. M. 1998. Project 2000 diplomates' perceptions of their experiences of transition from student to staff nurse. *Journal of Clinical Nursing*, 7(2):145-153.

Marcum, E. and West, R. 2004. Structured orientation for new graduates: a retention strategy. *Journal for Nurses in Staff Development*, 20(3):118-124.

McCabe, S. 2000. Bringing psychiatric nursing into the twenty-first century. *Archives of Psychiatric Nursing*, 14(3):109-116.

Olson, R., Nelson, M., Stuart, C., Young, L., Kleinsasser, A. and Schroedermeier, R. 2001. Nursing student residency program: a model for a seamless transition from nursing student to RN. *Journal of Nursing Administration*, 31(1):40-48.

Owens, D., Turjanica, M., Scanion, M., Sandhausen, A., Williamson, M. and Herbert, C. 2001. New graduate RN internship program: a collaborative approach for system-wide integration. *Journal for Nurses in Staff Development*, 17(3):144-150.

Prebble, K., and McDonald, B. 1997. Adaptation to the mental health setting: the lived experience of comprehensive nurse graduates. *Australian and New Zealand Journal of Mental Health Nursing*, 6(1):30-36.

Puntil, M. 2005. New graduate orientation program in a geriatric psychiatric inpatient setting. *Issues in Mental Health Nursing*, 26(1):65-80.

Ross, H. and Clifford, K. 2002. Research as a catalyst for change: the transition from student to registered nurse. *Journal of Clinical Nursing*, 11(4):545-553.

Stevens, J.A. and Dulhunty, G.M. 1997. A career with mentally ill people: an unlikely destination for graduates of pre-registration nursing programs. *The Australian Electronic Journal of Nursing Education*, 3(1):128-138 (http://www.scu.edu.au/schools/nhcp/aejne/archive/vol3-1/acareer.htm).

Tradewell, G. 1996. Rites of passage: adaptation of nursing graduates to a hospital setting. *Journal of Nursing Staff Development*, 12(4):183-189.

Concordance with phase-one cardiac rehabilitation guidelines in the inpatient setting

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KEY WORDS

heart disease, rehabilitation, adherence, standards

ABSTRACT

Objective
To examine concordance with phase-one cardiac rehabilitation (CR) guidelines, undertake an intervention that might optimise adherence to the guidelines, and establish a benchmark for practice in the coronary care unit (CCU) setting.

Design
Pre-post intervention medical record review.

Setting
Level 1, university affiliated coronary care unit (CCU), Melbourne, Australia.

Subjects
Inpatients of the CCU with a discharge diagnosis of acute coronary syndrome, ischaemic-induced acute pulmonary oedema, myocardial infarction, arrhythmia, or cardiac arrest, and patients for elective coronary interventions (eg. angioplasty).

Interventions
Medical record review of concordance with phase-one CR guidelines and staff in-services to communicate the results; distribution of a questionnaire post in-service to collate staff perceptions of barriers to undertaking phase-one CR; and repeated medical chart audit to re-assess concordance.

Main outcome measures
Concordance with the guidelines for phase-one CR.

Results
Data was complete for 89 cases. Concordance rates ranged from 5 to 100%. Good concordance with guidelines was recorded in advising the patient of their medical diagnosis (98-100%); and in assessing the patient and their family's psychological adjustment to their condition and the impact it had on their well being (80-83%). The only significant improvement post intervention was a written invitation to a phase two CR program (5 vs. 14%).

Conclusions
The audit raised awareness of barriers to undertaking phase-one CR but did not appreciably alter the concordance rates. This suggests other strategies and resources to increase the delivery of phase-one CR need to be considered

INTRODUCTION

Heart disease is the primary cause of disease burden (AIHW 2003) and the most common cause of sudden death in adult Australians (AIHW 2005; AIHW and NHF of Australia 2004). Effective evidenced based guidelines exist for the inpatient management of acute cardiac events (NHF/CSANZ 2007). Evidenced based care has reduced the mortality rates of patients, who can then proceed to discharge from hospital following an acute cardiac event and intervention. Prior to hospital discharge, patients and their families require education and access to information on secondary prevention strategies that will empower them to make the necessary lifestyle modifications to actively manage a chronic health condition such as heart disease (Flynn et al 2007).

National and international guidelines recommend attendance at a cardiac rehabilitation (CR) program for patients post myocardial infarction (Leon et al 2005; NHF/ACRA 2004). Indeed, all acute care cardiac patients require cardiac rehabilitation and access to secondary prevention programs (Goble and Worchester 1999). The National Heart Foundation of Australia and the World Health Organization recommend that CR services be available and routinely offered to everyone with cardiovascular disease and that the program be delivered by qualified health clinicians (NHF/ACRA 2004; WHO 1993).

Cardiac rehabilitation is the process through which patients return to an active and satisfying lifestyle and provision of this service is an expected tenet in the patient care continuum (ACRA 1999). Phase-one CR is primarily concerned with counselling. It aims to explain the diagnosis and to raise the candidate's awareness of risk factor modification, cardio-protective dietary guidelines, smoking cessation, and early mobilisation. It includes reassurance of progress, family involvement, and education relating to angina, medications, alcohol consumption, and return to work and/or driving. It further includes follow-up and referral to a phase two program (Goble and Worchester 1999; New Zealand Guidelines Group 2002, 2003).

This study centre recorded 1278 inpatient admissions to their coronary care unit (CCU) in 2005. Despite the large number of admissions to the CCU and the recognition of coronary disease as a condition that requires long term care and patient education, this was the first attempt to evaluate concordance with phase-one CR guidelines. At the time of conducting this study there were few published reviews of adherence to phase-one CR guidelines in the clinical setting. There were some reports in the literature that adherence to guidelines that inform practice for the management of cardiovascular health conditions were sub-optimal. A recent study of quality of care for patients with acute coronary care syndromes published the outcomes from 12 process of care quality indicators (Scott et al 2002). Concordance with recommendations for inpatient cardiac rehabilitation was reported as 47% and 7% for phase-two cardiac rehabilitation. These authors suggested that quality improvement might follow from the implementation of a guideline-linked audit and feedback process, professional education, care maps, or from a combined educational approach.

In a more recent study (Harvey et al 2005), adherence to the evidence-based guidelines for the inpatient management of chronic obstructive pulmonary disease (COPD) was less than 60% and referral to an outpatient-based pulmonary rehabilitation program was 15%. These authors conducted an audit review and results were reported back at a senior clinical group peer review meeting. Following the feedback of the audit results, a second audit failed to report significant increases in adherence to the guidelines. This outcome suggested that while professional education and feedback improved concordance with some of the guidelines, additional mechanisms such as identifying barriers to adherence should also be examined to facilitate optimal uptake of guidelines in clinical practice.

Phase-one CR is often regarded as an automatic part of cardiac inpatient care (Day and Batten 2006). Despite the evidence to support cardiac rehabilitation it has been suggested that a disparity often exists

between the published guidelines of care and actual practice in the clinical setting (Flynn et al 2007). The primary aim of this investigation was to examine concordance to phase-one CR guidelines. The study's further aim was to undertake a simple intervention that might optimise adherence to phase-one guidelines and establish a benchmark for translating evidence into practice in the CCU setting.

METHOD

Study design and setting

A retrospective chart review was conducted in a level one university-affiliated hospital. The underlying premise of this study was that if phase-one CR was not documented in the patient's medical records then it had not been done.

There were two data collection periods. The medical records of the first fifty admissions to the CCU in one calendar month were audited. A further fifty consecutive admissions to the CCU were audited following two staff in-services of the primary audit's outcomes, and completion of an anonymous questionnaire by the CCU staff. The questionnaire outlined commonly perceived barriers to undertaking phase-one CR education and invited participants to document any other barriers not listed. Both in-services were conducted during the overlap time between the morning and evening shifts.

As this was a pilot study, the sample size for the audit was chosen arbitrarily. The hospital's ethics committee granted approval for this quality assurance activity and for the reporting of the outcomes.

Subjects

Eligible subjects were consecutive patients admitted to the CCU with a discharge diagnosis of acute coronary syndrome, ischaemic-induced acute pulmonary oedema, myocardial infarction, arrhythmia, or cardiac arrest, and patients for elective coronary interventions (eg. angioplasty). All admissions were recorded in the CCU patient admissions register. The admissions register is derived from the Australian Nursing Assessment and Documentation Alternative (ANADA) system which has been reported previously (George 1995). The

cases were accepted for the audit if the patient's medical file was available to be reviewed and if it confirmed the discharge diagnosis of a cardiac event as the primary reason for admission to the CCU. Cases were excluded if the medical record reported that the patient had a co-existing terminal illness or had cognitive impairment. Terminal illness or cognition are not reasons for exclusion from the CCU, but asking such candidates how they could modify their cardiac risk factors would seem inappropriate.

Data Collection

A trained abstractor extracted the information from the hospital records using a standardised data collection tool. The tool was based predominately on the content of the New Zealand Guidelines Group's evidence-based guidelines (New Zealand Guidelines Group 2002). These guidelines report the level of evidence with each component that cardiac rehabilitation education seeks to cover. Recommendations from these guidelines were cross-checked with other published reports (NHF/ACRA 2004; NHF/CSANZ 2004; Goble and Worchester 1999) before the data collection tool was finalised. These locally produced publications ensured that the guidelines espoused were relevant to the local population. A synthesis of these guidelines as the basis for the audit tool ensured the 'best available evidence' was incorporated in the development of the tool as summarised in Table two. The audit tool is available for scrutiny and/or use from the corresponding author.

Intervention

Data from the first audit were analysed and the outcomes twice presented at the CCU's monthly staff meetings. Staff discussed the outcomes and completed an anonymous questionnaire of perceived barriers to implementing phase-one cardiac rehabilitation. Questionnaires were deposited in a box and the feedback summarised.

Statistical analysis

Patient characteristics and demographics were compared between groups using X^2, parametric (t-test), and non-parametric methods. A p-value less than 0.05 was considered to be statistically

Table 1: Patient characteristics for the pre and post intervention audit results

	Pre- Intervention n = 40	Post- Intervention n = 49	p value
Age: M (SD) years	66 (15)	63 (14)	0.39
Gender: (Male)	20 (50%)	34 (70%)	0.09
LOS in CCU: M (SD) days	4 (4)	2 (2)	0.01*
Cumulative LOS in hospital: M (SD) days	6 (6)	4 (3)	0.05
Discharged home directly from the CCU	37 (93%)	42 (86%)	0.34
Australian born	19 (48%)	23 (47%)	0.94
AMI (STEMI / NSTEMI)	20 (50%)	15 (31%)	0.34
Elective percutaneous coronary intervention	5 (13%)	17 (35%)	0.01*

Note: M: Mean; SD: Standard Deviation; LOS: Length of stay, * Significant difference

significant. Kolmogorov-Smirnov and Shapiro-Wilks tests were performed to assess normality of the data. If the p-value was <0.05 in either test, it was assumed the data was not normally distributed. Concordance rates for each item were calculated as the number of phase-one components documented in audited records divided by the number in the audit sample and expressed as a percentage. Ninety five per cent confidence intervals were calculated for the difference in concordance rates before and after the intervention. Statistical analysis was performed using SPPS version 13.0 (III, USA).

FINDINGS

There were statistically significant differences between groups in the patient's length of stay in CCU (p=0.01) despite no significant differences between groups in age, gender, country of origin, or proportion of direct discharges from the CCU. There were no significant differences between the pre- and

Table 2: Comparison of concordance for each phase-one recommendation pre- and post-intervention audits

	Pre- Intervention % concordance (n = 40)	Post- Intervention % concordance (n = 49)	95% CI for the difference in concordance rates
Cardiac diagnosis	100	98	2 (-0.76, 0.26)
Cardiac risk factors	78	71	7 (-0.14, 0.11)
Nutritional advice	40	35	5 (-0.07, 0.38)
Smoking cessation referral or record of smoking status	68	67	1 (-0.13, 0.61)
Physical activity plan until attendance at phase two cardiac rehabilitation	60	43	17 (-0.06, 0.47)
Psychological aspects and relationships	83	80	3 (-2.87, 0.78)
Involvement of partner and family in education	68	55	13 (-0.10, 0.31)
Angina management plan	68	59	9 (0.02, 0.41)*
Education about medications	73	78	5 (-0.01, 0.27)
Healthy heart range for alcohol consumption	5	6	1 (-0.07, 0.38)
Return to work	15	20	5 (-0.22, 0.53)
Return to driving	13	4	9 (0.05, 0.71)*
Written invitation whilst inpatient to attend phase-two cardiac rehabilitation	5	14	9 (-0.19, 0.15)

Note: *confidence interval (CI) does not include zero statistically significant difference.

post-intervention audits in patients presenting with an acute myocardial infarction (AMI). The volume of elective percutaneous coronary procedures differed significantly (p=0.01), which most likely explains the reduced length of stay in CCU and in hospital (see table 1).

Table 2 summarises the adherence to the phase-one CR guidelines pre and post intervention. Concordance with the guidelines remained exceptionally good in documenting the patient's medical diagnosis, discussing with the patient their cardiac risk factors, psychological adjustment to illness/ roles and relationships, and discussing with the patient the use of medications for their health management. Patient education regarding their prescribed medication, expected time off work, alcohol consumption and a written invitation to attend phase two cardiac rehabilitation were documented to have occurred more frequently post-intervention but these increases did not reach statistical significance. There were no statistically significant improvements recorded between the audit groups in the advising of patients of a cardio-protective dietary intake (p=0.18) or in the recording of smoking status/referral to the hospital's smoking cessation clinic (p=0.20). Formulation of a physical activity plan during phase-one CR, education on the use of sublingual glyceryl-trinitrate ('Anginine') and on resumption of driving were recorded to have occurred less in the second audit.

Table 3: Barriers to phase-one cardiac rehabilitation In the CCU setting

	Rank
Busy shift, education not a priority	1
Use of itinerant (locum) staff	2
Junior/ new staff	3
Patient too tired or anxious	4
Delay in confirmation of the medical diagnosis	5

The barriers that staff identified that had prevented phase-one cardiac rehabilitation from occurring in the CCU have been summarised in table 3. All staff present at the two clinical meetings (n=18) completed the questionnaire. This response rate represents

approximately half the CCU roster. In-services were not conducted on the night shift and rotating rosters meant that it would be difficult to have all staff attend these inservice meetings.

Patients from both of the audit periods who during their admission to the CCU were transferred out to the ward prior to their discharge home had their charts reviewed to determine the degree of phase-one CR that had occurred whilst they were recovering in the ward environment (see table 4).

Table 4: Documented phase-one CR conducted with the patient upon transfer to the ward from the CCU

	First audit n=16	Second audit n=12
Cardiac diagnosis discussed with patient	1%	25%
Cardiac risk factors discussed with patient	0%	17%
Angina management plan discussed with patient	1%	42%

DISCUSSION

In the USA, it has been reported that 18% of men and 35% of women experience a further myocardial infarction within the following six year period subsequent to their initial coronary event (American Heart Association as reported in Flynn et al 2007). The likelihood of repeated presentations provides an additional impetus to empower patients and their families with evidenced based information and access to resources to help delay progression in coronary heart disease.

Our audit quantified the percentage of CCU patients who had received documented phase-one CR education in a given sample. Good concordance with the phase-one CR guidelines were recorded in advising the patient of their medical diagnosis (98-100%), in assessing the patient and their family's psychological adjustment to their condition and the impact it had on their personal and social well-being (80-83%). The reporting back of the first audit results enabled some staff to ask what and where the phase-one CR guidelines contained and

could be accessed. In addition, the CCU staff had the opportunity to rank in their opinion the barriers to implementing phase-one CR in the CCU. In evidenced based projects, clinician input enables a greater link between the unit's and the clinician's priorities and to explore gaps in professional standards of care (Newhouse et al 2005).

The pressure of time was the primary barrier, followed by the staffing profile in the unit, patient fatigue, and the diagnostic ambivalence as evidenced with some cardiac enzyme markers that delays confirmation of a medical diagnosis. The presentation of the pre-intervention audit outcomes and increased awareness of barriers was considered a possible strategy that would improve the documenting of advice that patients received. With the exception of issuing a written invitation to attend phase two CR (5% vs. 14%), this study was unable to produce any significant improvements in the post intervention audit. This was an unexpected finding as a systematic checklist of phase-one CR and care maps exist in the CCU to optimise clinical practice. It has been identified in the literature that barriers to guideline adherence amongst physicians include a lack of awareness with guidelines and a lack of time and resources (Cabana, Rand and Powe 1999). The barriers reported by the CCU nursing staff were aligned with these reported barriers despite the systematic processes the CCU had in place.

There was a statistically significant reduced length of stay recorded in the CCU in the second audit time period, which would account for the reduced time patients had in CCU for education. The lack of significant improvement in the second audit was interesting as there were a significantly greater number of elective CCU patients in this sample who could be regarded as being in better prognostic shape and more likely to be earmarked for phase-one CR education. The high discharge rate (83-96%) directly from the CCU to the patient's home is indicative of the need for phase-one CR to be completed in the CCU. The patient's hospital stay is the opportunity to outline the link between the inpatient cardiac care received

with the outpatient follow up and maintenance services. This need for time and resources to be invested in phase-one CR education in the CCU setting is especially evident when all patients in both audit periods who were transferred out to the ward appeared to receive minimal phase-one CR education in that setting. Unfortunately, education does not appear on any budget and is generally considered a generic responsibility for all health disciplines. However as health education is not 'owned' by any discipline or department nor has a discrete budget, its central role in health management is often not given the priority it requires (Lorig 1995). Despite this anomaly, it is widely acknowledged that patients, staff and the hospital all benefit when guideline based practiced is adhered to (Flynn et al 2007).

The limitations of this audit included no customer feedback as to the quality of the information received, nor the likelihood of incorporation of the lifestyle modifications to optimise their health. The need to evaluate the quality of the phase-one cardiac rehabilitation program from the consumer perspective has been considered by other health services as an outstanding area yet to be fully examined (Stokes 1999). Other limitations of this study include the lack of random sampling, small sample size and possible bias of the staff involved in the delivery of the phase-one CR program.

The underlying premise of the study was that if phase-one CR was not documented in the patient's medical records then it had not been done. These results are therefore a conservative estimate in a convenience sample of the number of cardiac patients who received phase-one CR in the inpatient setting.

CONCLUSION

This audit demonstrates the need to improve the management of phase-one cardiac rehabilitation education in the inpatient setting. A benchmarking process that will allow ongoing evaluation of the evidenced-based guidelines has been established. The next step in our quality improvement process is

to the modify barriers to implementing phase-one CR education, and evaluate the participant's feedback of the phase-one cardiac rehabilitation service offered.

Clinical leaders will be sought from within the cardiac team to devise strategies that increase adherence to phase-one cardiac rehabilitation guidelines. Sourcing clinical champion(s) has been identified as critical to optimising health outcomes. A clinical champion does not need to be the most senior member in the team but rather a clinical expert who will champion change and foster interdisciplinary collaboration (Flynn et al 2007). Discordant clinical cardiac care following myocardial infarction had been reported to adversely impact on health outcomes (Flynn et al 2007; Scott and Harper 2002).

Determining the impact of concordance with phase-one cardiac rehabilitation guidelines on health outcomes will be an important goal of future research in this area. There is also the potential to roll out this quality improvement process to other coronary care units. This retrospective audit and feedback accompanied by an awareness of barriers to undertaking phase-one CR did not appreciably alter the concordance rates. This suggests that other strategies and resources to increase the delivery of phase-one CR need to be considered.

REFERENCES

Australian Cardiac Rehabilitation Association (ACRA). 1999. *A practitioner's guide to cardiac rehabilitation*. Australian Cardiac Rehabilitation Association. Renard Marketing.

Australian Institute of Health and Welfare (AIHW). 2005. *Chronic respiratory diseases in Australia: their prevalence, consequences and prevention.* Australian Institute of Health and Welfare: Canberra. Available from: http://www.aihw.gov.au/publications/index.cfm/title/10149.

Australian Institute of Health and Welfare (AIHW) and the National Heart Foundation of Australia (NHF). 2004. *Heart stroke and vascular diseases: Australian Facts 2004.* Available from: http://www.aihw.gov.au/publications/index.cfm/title/100005.

Australian Institute of Health and Welfare (AIHW). 2003. *Cardiovascular health*. Available from: http://www.aihw.gov.au/cvd/index.cfm.

American Heart Association. 2006. *Get with the guidelines*. Available from: http://www.americanheart.org/presenter.jhtml?identifiers=1165.

Cabana, M.D., Rand, C.S. and Powe, N.R. 1999. Why don't physicians follow clinical practice guidelines? A framework for improvement. *JAMA*, 282(15):1458-1463.

Day, W. and Batten, L. 2006. Cardiac rehabilitation for women: one size does not fit all. *Australian Journal of Advanced Nursing*, 24(1):21-26.

Flynn, F.M., Cafarelli, M., Petrakos, K. and Chritophersen, P. 2007. Improving outcomes for acute coronary syndrome patients in the hospital setting. *Journal of Cardiovascular Nursing*, 22(3):166-176.

George, M.V. 1995. Nursing framework for cardiac rehabilitation. Collegian, 2(2):29-33.

Goble, A.J. and Worchester, M.U.C. 1999. *Best practice guidelines for cardiac rehabilitation and secondary prevention*. Carlton: Victorian Government Department of Human Services.

Harvey, P.A., Murphy, M.C., Dornom, E., Berlowitz, D.J., Lim, W.K. and Jackson, B. 2005. Implementing evidenced based guidelines: inpatient management of chronic obstructive pulmonary disease. *Internal Medicine Journal*, 35(3):151-155.

Leon, A.S., Franklin, B.A., Costa, F., Balady, G.J., Berra, K.A., Stewart, K.J., Thompson, P.D., Williams, M.A. and Lauer, M.S. 2005. Cardiac rehabilitation and secondary prevention of coronary heart disease (an American Heart Association Scientific Statement from the Council on Clinical Cardiology - Subcommittee on Exercise, Cardiac Rehabilitation and Prevention and the Council on Nutrition, Physical Activity, and Metabolism - Subcommittee on Physical Activity, in Collaboration with the American Association of Cardiovascular and Pulmonary Rehabilitation. *Circulation*, 111(3):369-376.

Lorig, K. 1995. Patient education: treatment or nice extra. *British Journal of Rheumatology*, 34(8):703-704.

National Heart Foundation of Australia (NHF) and Cardiac Society of Australia and New Zealand (CSANZ). 2007. *Reducing Risk in Heart Disease*. Available from: http://www.heartfoundation.org.au/document/NHF/ReducingRisk_HeartDisease_FullGuide_2007.pdf.

National Heart Foundation of Australia (NHF) and Australian Cardiac Rehabilitation Association (ACRA). 2004. *Recommended Framework for Cardiac Rehabilitation' 04*, Available from: http://www.heartfoundation.org.au/document/NHF/cr_04_rec_final.pdf.

New Zealand Guidelines Group (NZGG). 2003. *The assessment and management of cardiovascular risk*. Wellington, New Zealand. Available from: http://www.nzgg.org.nz/guidelines/0035/CVD_Risk_Full.pdf

New Zealand Guidelines Group (NZGG). 2002. *Cardiac Rehabilitation: summary and resource kit*. Wellington: New Zealand. Available from: http://www.nzgg.org.nz/guidelines/0001/Summary_resource_kit.pdf

Newhouse, R., Dearholt, S., Poe, S., Pugh, L.C. and White, K.M. 2005. Evidence-based practice: a practical approach to implementation. *Journal of Nursing Administration,* 35(1):35-40.

Scott, I.A., Denaro, C.P., Flores, J.L., Bennett, C.J., Hickey, A.C. and Mudge, A.M. 2002. Quality of care of patients hospitalized with acute coronary syndromes. *Internal Medicine Journal*, 32(11):502-511.

Scott, I.A. and Harper, C.M. 2002. Guideline-discordant care in acute myocardial infarction: predictors and outcomes. *Medical Journal of Australia*, 177(1):26-31.

Stokes, H.C. 1999. Cardiac rehabilitation: the quest for quality. *Coronary Health Care*, 3(4):171-177.

World Health Organization.1993. R*eport of expert committee on rehabilitation after cardiovascular disease*. Geneva: World Health Organisation.

Prevalence rate of delirium at two hospitals in Western Australia

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KEY WORDS

delirium, confusion, dementia, acute care, prevalence
audit, elderly patient

ABSTRACT

Objective
To estimate the prevalence of delirium in patients
on 15 medical and surgical wards at two hospitals in
Western Australia.

Design
Following a review of the literature on delirium a
standardised data collection tool was developed
and four prevalence audits were conducted over a
four week period at the target hospitals. The nurse
coordinator on each ward was asked to identify any
patient who was experiencing a delirium or who was
confused. These patient's records were then examined
for documentation that confirmed the presence of
delirium or confusion.

Main outcome measures
The audit measured those patients with a confirmed
documented delirium and identified patients who had
a possible delirium superimposed on a confirmed or
suspected dementia or unconfirmed organic brain
disorder. Patients with a known dementia or organic
brain disorder who displayed symptoms of confusion
but had no evidence of delirium were also identified.

Results
Of 1209 patients surveyed in four prevalence audits,
132 patients (10.9%) displayed behaviours suggestive
of the presence of delirium; however only 48 of the
132 patients had a confirmed diagnosis of delirium.
The remaining 84 patients displayed features of
delirium that were superimposed on symptoms of
dementia (diagnosed/undiagnosed) or an organic
brain disorder. An additional 51 (4.2%) of the 1209
patients were identified with confusion resulting from
other causes.

Conclusions
Accurate assessment of delirium is particularly
important in elderly people where behaviours
associated with delirium are often assumed to be
caused by dementia. This may result in delirium going
undiagnosed and untreated.

INTRODUCTION

As the population ages, nursing staff in acute hospitals are caring for an increasing number of elderly patients. Many of these patients present with confusion during their hospitalisation. The associated presenting behaviours impact on nursing care workloads and ward acuity levels. The causes of confusion can be associated with dementia, delirium, organic brain disorders or a combination of these conditions. It is acknowledged that delirium may go unrecognised and untreated in some of these patients. Therefore, it is important to identify the extent of the problem to enable development of appropriate management strategies. In order to determine the occurrence of confusion and the likelihood of delirium in this group of patients a prevalence audit was conducted at two hospitals in Western Australia.

Definition

Delirium is a short-term disturbance of consciousness which lasts for as little as a few hours to as much as a few months (Marcantonio et al 2000; Inouye et al 1999). Delirium is characterised by acute onset, inattention, and disorganised thinking, or an altered level of consciousness. To be diagnostic of a delirium, these features must fluctuate over the course of the day, be attributable to a general medical condition and/or the use of substance(s), and must not be better explained by a pre-existing or evolving dementia (American Psychiatric Association 1994).

Incidence

Delirium is a common management problem facing health professionals and is reported to occur in up to 62% of hospitalised elderly orthopaedic patients (Olofsson et al 2005). While the incidence is much lower (9.4% to 20%) in younger hospitalised patients without pre-existing cognitive impairments or other comorbidities (Milisen et al 2002; Lynch et al 1998) it may rise as high as 89% when dementia is involved (Fick et al 2002). Research suggests that delirium is undiagnosed in 25% of cases (Young and George 2003) and up to 87.5% when dementia was also

involved (Fick 2000 cited in Milisen et al 2002). Delirium is often present on admission (McCusker et al 2003) and sometimes increased confusion is the first or only sign of a developing medical problem (Meagher 1998). In spite of the high incidence of delirium, many cases are not identified in clinical practice. It is also clear that some patient populations are at higher risk than others.

Mortality and Morbidity associated with delirium

Delirium remains poorly recognised and under-diagnosed and therefore often untreated (Hustey et al 2003; Inouye et al 2001; Inouye et al 1999). Some researchers have expressed concern regarding the different use of terms to describe this condition (O'Keeffe 1999) and the resulting lack of recognition of this disorder. Delirium is a serious medical problem that has profound negative effects on mortality and morbidity (Leslie et al 2005; Cole 2004; McCusker et al 2002) and health care costs, including length of stay (Olofsson et al 2005; Cole 2004; Saravay et al 2004).

Risk factors

A range of risk factors have been identified in the literature. These can be divided into predisposing factors and 'precipitating factors' which arise during or lead to admission. Predisposing factors include cognitive impairment (Freter et al 2005; Korevaar et al 2005; Morrison et al 2003; Schuurmans et al 2003); visual or hearing impairment (Schuurmans et al 2003; Elie et al 1998; Inouye et al 1993; Schor et al 1992); impairments in activities of daily living (Freter et al 2005; Korevaar et al 2005; Schuurmans et al 2003); age (Freter et al 2005; Santos et al 2004); male gender (Williams-Russo et al 1992); cigarette smoking (Santos et al 2004); alcohol abuse (Williams-Russo et al 1992); depression (Elie et al 1998); and hypertension (Santos et al 2004).

Precipitating factors include severe illness or infection (Edlund et al 2001; Inouye et al 1993); fracture on admission (Schor et al 1992); extended time from admission to surgery (Schuurmans et al 2003); abnormal blood test results (O'Keeffe and Lavan 1996); and use of neuroleptic medications or opioids

(Flacker and Marcantonio 1998). A recent literature review found evidence that inadequate use of opioids was more likely to be a risk factor than the use of opioids (Gaudreau et al 2005).

METHODS

Five researchers sought to determine the occurrence of delirium in the medical and surgical wards at two hospitals in Western Australia by conducting a prevalence audit on one day of each week for four consecutive weeks.

Data collection tool

A comprehensive review of the literature was conducted to identify the common causes, risk factors and presenting symptoms of confusional states. Following this an audit tool was designed, piloted and modified prior to data collection. The audit tool collected the following information:

a) gender, age and admission diagnosis;

b) data on behavioural descriptors associated with delirium, for example: agitated, wandering, plucking/pulling, disorientated, verbal abuse, lethargy and hallucinating;

c) data on the onset of confusion, if the confusion fluctuated or was constant, and evidence of a diagnosed dementia, aswell as other contextual data for example: a history of onset, duration and frequency of altered mental status; details of the patient's recent functional, cognitive and behavioural history; evidence of predisposing and/or precipitating factors; number and types of medications; if medications were linked to a possible delirium; and evidence of other causes of confusion; and

d) any additional comments made by the auditor.

Identifying confused patients

When piloting the data collection tool, the researchers identified that often in the clinical setting staff use the term 'confused' to describe people who were displaying symptoms highly suggestive of a delirium. Therefore on each of the four prevalence audit days, the researchers asked the nurse coordinator to identify patients on their ward that were experiencing a delirium or who were confused. As some patients with delirium may be withdrawn and quiet, the coordinators were also asked if there were any patients on the ward who had fluctuating or inappropriate behaviours that would suggest the hypoactive type of delirium.

During each audit the researchers examined the patient's records to look for written verification of a patient having been identified by a nurse as having a delirium or being confused, for example: statements such as 'delirium secondary to a urinary tract infection' and 'confusion post-operatively' or descriptors such as 'plucking/pulling, hallucinating and verbally aggressive'.

The auditors did not attempt to diagnose delirium after reviewing a patient's records but did record a diagnosis of delirium if this had been clearly documented by a health care professional. To explain the most likely cause of each patient's presenting behaviour the auditors categorised each patient into one of the following groups:

1A: a diagnosed delirium that may or may not be hospital acquired;

1B: possible delirium or yet to be confirmed dementia or organic brain disorder;

1C: possible delirium super-imposed on a confirmed diagnosis of dementia;

2: behaviour related to a confirmed diagnosis of dementia;

3A: behaviour related to an organic brain disorder that may/may not resolve; or

3B: behaviour related to a probable unconfirmed dementia.

Inter-rater reliability

During the audit each patient was assigned a category by two of the auditors based on information obtained from the record. The research team then met and discussed the rationale behind each classification to

ensure consensus. In addition, inter- rater reliability can be demonstrated throughout the audit, for example, 42 patients were identified on more than one occasion over the four week period as being confused and were assigned the same category rating by different researchers; discrepancies between rating only occurred on three (1.6%) of the 183 occasions.

Ethics

The study was registered with the hospital as a quality activity and the Chair of the hospital Human Research Ethics Committee was informed that the audit was being conducted. No name identified data were collected and the patient unit medical record number was used as a unique identifier.

RESULTS

A total of 1209 patients were reviewed during the four prevalence audits conducted over four weeks (13 April - 14 May 2006) on 15 medical and surgical wards with 183 (15%) patients identified as displaying behaviours associated with a delirium or confusion. The 183 patients consisted of 107 (58.5%) females and 76 (41.5%) males with an age range from 33 years to 96 years and a mean age of 80.5 years. Of the 183 patients, 132 (72%) displayed behaviours that could be deemed to be associated with the presence of a delirium and these patients were coded into three sub-categories, 1A, 1B and 1C (see table 1).

Table 1: Patients displaying behaviours suggestive of delirium

Descriptors	Number of patients	Category
Possible delirium superimposed on a confirmed dementia	58 (44%)	1C
Diagnosed delirium that may or may not be hospital acquired	48 (36%)	1A
Possible delirium or yet to be confirmed dementia or an organic brain disorder	26 (20%)	1B
Total	132 (100%)	

Patients in these categories all displayed behaviours related to either a documented diagnosed delirium or behavioural changes strongly suggestive of an undiagnosed delirium. The highest percentage (44%) of these patients had a co-morbidity of dementia and the acute fluctuating behaviours recorded by nursing and medical staff were strongly suggestive of a superimposed delirium. A further 20% possibly had an undiagnosed dementia or organic brain disorder but the presence of precipitating factors, such as infection, and the fluctuating nature of their behaviour were also highly suggestive of a delirium.

The remaining 51 (28%) of the 183 patients had difficult but constant behaviours that often created nursing care problems, however the patients' records clearly indicated that the most likely causes were directly attributed to a diagnosed dementia or an organic brain disorder and not a delirium (see table 2).

Table 2: Patients displaying behaviours associated with dementia or organic brain disorder

Descriptors	Number of patients	Category
Behaviour related to a confirmed diagnosis of dementia	29 (57%)	2
Behaviour related to an organic brain disorder that may or may not resolve	15 (29%)	3A
Behaviour related to a probable unconfirmed dementia	7 (14%)	3B
Total	51 (100%)	

Limitations

It was evident during data collection that nurses were desensitised to patients displaying confused behaviours particularly if the behaviours did not impact on the provision of care. Therefore it is likely that the number of patients with 'confusion' were under reported.

DISCUSSION

The ability to discern where a delirium is superimposed on dementia is an important factor to ensure

that the health status of elderly patients is not compromised during their hospitalisation.

It was clearly evident that staff do not always have adequate information on a patient's level of pre-hospital cognitive, behavioural and social functioning and as a result may assume that the presenting behaviours are 'normal' (O'Keeffe 1999). Elderly patients presenting with confusion were sometimes labelled as having dementia without a formal assessment confirming the diagnosis documented in their notes. Health professionals' ability to recognise delirium was also clouded by the complexity of presenting problems which may have accounted for changes in patients' cognition and/or behaviours such as: dementia, depression, side effects of medication and other conditions. As delirium is a predictor of mortality and morbidity particularly in the elderly (McCusker et al 2002; Inouye et al 1999; O'Keeffe 1999) it is important that documentation of pre existing cognitive functioning is accurately recorded.

A common descriptor identified in the audit was the use of the term 'confusion' by health professionals to describe clusters of behaviours originating from a variety of causes. The acceptance of the use of the term confusion as a 'diagnosis' was apparent throughout the audit. The term confusion appeared to initiate risk management strategies but there was often little evidence of further investigation to determine a cause of the presenting behaviours. Documenting behavioural descriptors beyond the term 'confused' would facilitate a more accurate assessment and diagnosis of delirium in patients.

This study found that caring for confused patients is a common occurrence in the acute care situation and it is highly probably that a percentage of these patients will experience a delirium which can go unrecognised and therefore untreated. The audit demonstrated that only 36% of patients with behaviours that were highly suggestive of delirium had a confirmed written diagnosis in their patient record. As delirium has a significant negative impact on the patient, their family, health professionals and the health care system,

the lack of recognition of this syndrome may have far reaching health, social and economic costs long after the patient is discharged.

It was also evident from the audit that patients presenting with behaviours suggestive of the hyperactive form of delirium were more easily recognised than those with a presentation suggestive of a hypoactive delirium. As patients with the hyperactive form of delirium impact on the level of acuity on the ward and on health professionals' workloads (Moore et al 1995) they quickly become known within a ward population due to the resource issues that arise.

When patients experience delirium during their hospitalisation their length of stay in hospital is often significantly increased. Some researchers have quantified the increased burden placed on health professionals and the health care system by these patients. For example, one group found that non-delirious patients had a mean stay of 4.6 days but this increased to 6 days for patients who experienced a delirium (Franco et al 2001).

CONCLUSION

The findings of this prevalence audit demonstrated that delirium is a major challenge for health professionals and a frequent cause of confusion in patients in medical and surgical wards of acute care hospitals. The cost of delirium extends well beyond the patient's discharge from the acute care situation therefore it is of paramount importance that health professionals facilitate prevention or early recognition. With an increasing ageing population, health professionals will be regularly challenged to recognise and manage delirium along with other presenting confusional states.

REFERENCES

American Psychiatric Association. 1999. *Practice guideline for the treatment of patients with delirium*. http://www.psych.org/psych_pract/treatg/pg/Practice%20Guidelines8904/Delirium.pdf.

Cole, M.G. 2004. Delirium in elderly patients. *American Journal of Geriatric Psychiatry*, 12(1):7-21.

Edlund, A., Lundström, M., Brännström, R.N.T., Bucht, G. and Gustafson, Y. 2001. Delirium before and after operation for femoral neck fracture. *Journal of the American Geriatrics Society*, 49(10):1335-1340.

Elie, M., Cole, M.G., Primeau, F.J. and Bellavance, F. 1998. Delirium risk factors in elderly hospitalized patients. *Journal of General Internal Medicine*, 13(4):204-212.

Fick, D.M., Agostini, J.V. and Inouye, S.K. 2002. Delirium superimposed on dementia: a systematic review. *Journal of the American Geriatrics Society*, 50(10):1723-1732.

Flacker, J.M. and Marcantonio, E.R. 1998. Delirium in the elderly: optimal management. *Drugs and Ageing*, 13(2):119-130.

Franco, K., Litaker, D., Locala, M.D. and Bronson, D. 2001. The cost of delirium in the surgical patient. *Psychosomatics*, 42(1):68-73.

Freter, S.H., Dunbar, M.J., MacLeod, H., Morrison, M., MacKnight, C. snf Rockwood, K. 2005. Predicting post-operative delirium in elective orthopaedic patients: the Delirium Elderly At-Risk (DEAR) instrument. *Age and Ageing*, 34(2):169-184.

Gaudreau, J.D., Gagnon, P., Harel, F., Tremblay, A. and Roy, M.A. 2005. Fast, systematic and continuous delirium assessment in hospitalized patients: the nursing delirium screening scale. *Journal of Pain and Symptom Management*, 29(4):368-375.

Hustey, F.M., Meldon, S.W., Smith, M.D. and Lex, C.K. 2003. The effect of mental status screening on the care of elderly emergency department patients. *Annals of Emergency Medicine*, 41(5):678-684.

Inouye, S.K., Foreman, M.D., Mion, L.C., Katz, K.H. and Cooney, L.M. 2001. Nurses' recognition of delirium and its symptoms. *Archives of Internal Medicine*, 161(20):2467-2473.

Inouye, S.K., Schlesinger, M.J. and Lydon, T.J. 1999. Delirium: a symptom of how hospital care is failing older persons and a window to improve quality of hospital care. *The American Journal of Medicine*, 106(5):565-573.

Inouye, S.K., Viscoli, C.M., Horwitz, R.I., Hurst, L.D. and Tinetti, M.E. 1993. A predictive model for delirium in hospitalized elderly medical patients based on admission characteristics. *Annals of Internal Medicine*, 119(6):474-481.

Korevaar, J.C., van Munster, B.C. and de Rooij, S.E. 2005. Risk factors for delirium in acutely admitted elderly patients: a prospective cohort study. *BMC Geriatrics*, 5(1):6.

Leslie, D., Zhang, Y., Holford, T.R., Bogardus, S.T., Leo-Summers, L.S. and Inouye, S.K. 2005. Premature death associated with delirium at 1-year follow-up. *Archives of Internal Medicine*, 165(4):1657-1661.

Lynch, E.P., Lazor, M.A., Gellis, J.E., Orav, J., Goldman, L. and Marcantonio, E.R. 1998. The impact of postoperative pain on the development of postoperative delirium. *Anesthesia and Analgesia*, 86(4):781-785.

Marcantonio, E.R., Flacker, J.M., Michaels, M. and Resnick, N.M. 2000. Delirium is independently associated with poor functional recovery after hip fracture. *Journal of the American Geriatrics Society*, 48(6):618-624.

McCusker, J., Cole, M., Abrahamowicz, M., Primeau, F. and Belzile, E. 2002. Delirium predicts 12-month mortality. *Archives of Internal Medicine*, 162(4):457-463.

McCusker, J., Cole, M.G., Dendukuri, N. and Belzile, E. 2003. Does delirium increase hospital stay? *Journal of the American Geriatrics Society*, 51(11):1539-1546.

Meagher, D. 1998. Delirium: the role of psychiatry. *Advances in Psychiatric Treatment*, 7(6):33-443.

Milisen, K., Foreman, M.D., Wouters, B., Driesen, R., Godderis, J., Abraham, I. L. and Broos, P.L.O. 2002. Documentation of delirium in elderly patients with hip fracture. *Journal of Gerontological Nursing*, 28(11):23-29.

Moore, P., Berman, K., Knight, M. and Devine, J. 1995. Constant observation: implications for nursing practice. *Journal of Psychosocial Nursing and Mental Health Services*, 33(3):46-50.

Morrison, S.R., Magaziner, J., Gilbert, M., Koval, K.G., McLaughlin, M.A., Orosz, G., Strauss, E. and Siu, A.L. 2003. Relationship between pain and opioid analgesics on the development of delirium following hip fracture. *Journal of Gerontology*, 58A(1):76-81.

O'Keeffe, S.T. 1999. Clinical subtypes of delirium in the elderly. *Dementia and Geriatric Cognitive Disorders*, 10(5):380-345.

O'Keeffe, S.T. and Lavan, J.N. 1996. Predicting delirium in elderly patients: development and validation of a risk-stratification model. *Age and Ageing*, 25(4):317-321.

Olofsson, B., Lundström, M., Borssén, B., Nyberg, L. and Gustafson, Y. 2005. Delirium is associated with poor rehabilitation outcome in elderly patients treated for femoral neck fractures. *Scandinavian Journal of Caring Sciences*, 19(2):119-127.

Santos, F.S., Velasco, I.T. and Fraguas, R. 2004. Risk factors for delirium in the elderly after coronary artery bypass graft surgery. International *Psychogeriatrics*, 16(2):175-193.

Saravay, S.M., Kaplowitz, M., Kurik, J., Zeman, D., Pollack, S., Novik, S., Knowlton, S., Brendel, M. and Hoffman, L. 2004. How do delirium and dementia increase length of stay of elderly general medical inpatients. *Psychosomatics*, 45(3):235-242.

Schor, J.D., Levkoff, S.E., Lipsitz, L.A., Reilly, C.H., Cleary, P.D., Rowe, J.W. and Evans, D.A. 1992. Risk factors for delirium in hospitalized elderly. *Journal of the American Medical Association*, 267(6):827-831.

Schuurmans, M.J., Duursma, S.A., Shortridge-Baggett, L.M., Clevers, G.J. and Pel-Little, R. 2003. Elderly patients with a hip fracture: the risk for delirium. *Applied Nursing Research*, 16(2):75-84.

Williams-Russo, P., Urquhart, B.L., Sharrock, N.E. and Charlson, M.E. 1992. Post-operative delirium: predictors and prognosis in elderly orthopedic patients. *Journal of the American Geriatrics Society*, 40(8):759-767.

Young, L.J. and George, J. 2003. Do guidelines improve the process and outcomes of care in delirium. *Age and Ageing*, 32(5):525-528.

Progression from gastric tube feeds to full suckle feeds and discharge home of preterm infants

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KEY WORDS

bottle feeding, breast feeding, discharge planning, infant, newborn, rooming-in care, tube feeding

ABSTRACT

Objective
To estimate the time taken for preterm infants to progress from 50% suckle feeds to full suckle feeds and then to discharge.

Design
An observational, retrospective cohort study.

Setting
A level 2 and 3 neonatal nursery in a tertiary teaching and referral hospital in Queensland, Australia.

Subjects
61 consecutive infants born between July 2002 and December 2002 who were born <35 weeks gestational age; admitted for ≥14 days; and discharged directly home from hospital.

Main outcome measures
Time taken to progress from 50% suckle feeds to full suckle feeds and then to discharge.

Results
Infants spent an average of eight days in hospital after they attained four out of eight suckle feeds, six days in hospital after they attained five out of eight suckle feeds, and four days in hospital after reaching full suckle feeds.

Conclusions
Most infants will be able to be discharged home within two or three days of achieving five out of eight suckle feeds if discharge planning is started at this stage. This may decrease overall length of stay for these infants.

INTRODUCTION

Preterm infants face many hurdles during their stay in the neonatal nursery. Once they are stable and progressing well, the focus shifts from treatment to discharge and feeding becomes an integral part of an infant's progress. There is clear agreement in the literature about when preterm infants are ready for discharge (Medhurst 2005; McGrath and Bodea Braescu 2004; Merrit et al 2003; Raddish and Merritt 1998). Maintaining temperature, fully suckle feeding either by breast or bottle, and gaining weight are the accepted criteria for preterm infants leaving the neonatal nursery. There is wide acceptance of these criteria derived from textbooks such as Nelson's Textbook of Paediatrics (1983). This textbook is often quoted in journal articles reflecting a standard which has led to consistent practice in neonatal nurseries for the last 50 years (Gardener et al 2002; Kliethermes et al 1999; Anderson 1945). Historically, feeding in special care nurseries has been regimented in such a way that baby's feeds are progressed from one suckle feed a day, increasing each day until the infant is taking full suckle feeds. The number of suckle feeds each day are increased according to the baby's performance during feeds as determined by the nursing staff observing good attachment to the breast; a strong suckling cycle by the infant; and lactation let-down by the mother. Once the baby has successfully attained full suckle feeds and is gaining weight the decision is made to discharge the baby home.

Many factors impact on a preterm infant's ability to suckle and progress with feeds, however the parameters and factors which lead to the achievement of full suckle feeding remain largely unexamined (Pickler and Reyna 2003). To date there are only two randomised control trials examining feed progression or transition (Simpson et al 2002; McCain et al 2001). A systematic review which included these two studies determined that feeding protocols may indeed assist in the progression of feeding, but the quality of the study results need to be viewed with caution (Medhurst 2005). Thus it is not clear which is the most successful process to progress suckle feeding, especially in terms of enhancing the mother infant dyad and impacting on length of stay in hospital. Some of the advantages of earlier discharge of infants from neonatal nurseries are increased weight gain, enhanced mother-infant bonding, decreased incidence of iatrogenic illness and lower cost associated with shorter length of stay and fewer readmissions (Touch et al 2001). The criteria for discharge in most neonatal nurseries in Australia remains achievement of full suckle feeds either by breast or bottle (Medhurst 2005).

It was observed in the Royal Brisbane and Women's Hospital Special Care Nursery that despite infants achieving many of the recognised criteria for discharge, some babies remained in hospital for long periods after they had attained full suckle feeds. This was due to the difficulty in predicting at what point a baby would be ready for discharge. Furthermore, some babies were waking for feeds long before formally progressing to full suckle feeds, indicating that progression to full suckle feeds may be attained earlier for these infants.

Another factor that prompted this investigation of feeding practices was the under utilisation of our rooming-in facilities. Families benefit from rooming-in as they gain greater confidence and autonomy in decision making around their baby's care (Raddish and Merritt 1998). Rooming-in gives the family the opportunity to stay with their babies in a self-contained room prior to discharge home. Policy generally requires however that babies attain full suck feeds prior to being roomed-in. Nursing staff in the neonatal unit in which this study was based questioned whether this was necessary and whether more women would use the facility if rooming-in became accepted as part of the normal progression toward discharge and if the requirement to achieve full feeds prior to rooming-in was abolished.

There is difficulty predicting when a preterm infant might be ready to leave the nursery, that is, when they will achieve full suckle feeding. If this were known it would provide a point of reference to begin planning

for rooming-in or discharge. More over, if rooming-in was used as part of the normal progression through the neonatal nursery, it would not be necessary to have a baby on full suckle feeds before rooming-in. This would decrease the length of time in the nursery and shorten the time of separation of the mother and her infant.

In order to improve the nursing staff's ability to predict when an infant would be ready for full feeds and discharge, the unit required more detailed information about current practices. Consequently, the aim of the study was to estimate how long it took a preterm infant to progress from 50% suckle feeds (ie. 4 suckle feeds out of a possible 8) to 100% or 'full' suckle feeds (ie. 8 out of 8), and then from 'full' suckle feeds to discharge. It was also important to determine if babies rooming-in progressed more quickly to discharge.

METHODS

A retrospective cohort of infants born preterm was examined. The cohort consisted of inpatients in a neonatal unit at a tertiary teaching and referral hospital who met the following criteria: 23-24 weeks to <35 weeks gestational age (GA); admitted to the neonatal unit for at least 14 days; and discharged directly home from hospital. The infants could be either bottle or breastfed. Exclusions from the study were infants who: had major congenital abnormalities; infants with or at risk of Neonatal Abstinence Syndrome (NAS); withdrawing infants from opiate dependent women; infants who remained in hospital only because they were awaiting ophthalmology review, surgery, or improvement in

maternal well-being; and those planned for transfer to another hospital before going home.

Collected data included: weight and GA at birth; major diagnoses; duration of hospital stay (table 1); the dates the infant reached four suckle feeds out of eight feeds a day (50%), 5 suckle feeds out of 8 feeds per day (63%), and eight suckle feeds (100%); date of discharge; date of rooming-in prior to discharge (if roomed-in); the time taken to progress from 50% suckle feeds to discharge, from 63% suckle feeds to discharge, and from 100% suckle feeds to discharge; and weight (recorded second daily from the time the baby achieved 50% suckle feeds). A comparison of breast feeding to bottle feeding infants was also undertaken. No maternal factors were considered as part of the data collection. Gastric aspirates are not continued in the nursery once full feeds are achieved so this was not a focus of this study. Suck feeds and progression were assessed using a feeding scale, which guides the clinician to a volume requirement should the infant need a top up of milk.

RESULTS

The charts belonging to 66 consecutive infants born between July and December 2002 who met the inclusion criteria were reviewed. Five infants who remained in hospital despite being ready for discharge were excluded. Reasons for exclusion were maternal illness (n = 1); awaiting ophthalmology review (n = 2); and inguinal hernia repair (n = 2). The cohort therefore consisted of 61 infants. Of these infants, five were of gestational diabetic mothers; 12 were diagnosed with hyaline membrane disease; 26 had non-specific respiratory distress; 39 had jaundice

Table 1: Infant characteristics and length of stay of the cohort

	Mean (SD)	Min	1st Q	Median	3rd Q	Max
BW (grams)	1,773 (453)	720	1,450	1,842	2,090	2,750
GA at birth (weeks)	32.1 (2.4)	24.9	31.1	32.9	34.1	34.9
GA at 100% suckle feeds	36.5 (1.3)	32.1	35.7	36.4	37.0	41.7
GA at discharge (weeks)	37.1 (1.2)	32.9	36.4	37.0	37.6	42.3
Duration of hospital stay (days)	34.5 (19.7)	15.0	21.0	26.0	45.0	112.0

of prematurity; five had anemia of prematurity; 19 had apnoea of prematurity; eight had birth weights less than the 10th percentile; three had a patent ductus arteriosus; and two were diagnosed as having chronic lung disease. All babies in this cohort were clinically stable and maintaining their own temperature in an open cot when they achieved 50% suckle feeds. Six infants were one of triplets and 13 were one of twins.

Infants spent an average of eight further days in hospital after they reach 50% suckle feeds; six more days in hospital after they reached five suckle feeds out of eight feeds a day (63%); and approximately four more days in hospital after reaching full suckle feeds (table 2). Twenty-one infants (34%) reached full suckle feeds at ≤2 days after reaching 50% suckle feeds. Fourty-seven infants (77%) reached full suck feeds at ≤2 days after reaching 63% suckle feeds. Fourty-three infants (91%) were gaining weight at the time they reached full suckle feeds (table 2). Twenty-eight infants roomed-in, with a median time from attaining 100% suckle feeds until discharge of 3 days (range 2-6), compared with 3 days (range 1.5-4) in the 33 infants that did not room-in. Using the Mann-Whitney confidence interval (CI) and test, the difference between medians was 0.0 (95% CI -1.0 to 2.0), W = 924.0; this difference was not statistically significant at p=0.42 (adjusted for ties).

Sub-group analysis were undertaken comparing singleton (n=42) with multiple birth infants (n=19) and breastfed compared with bottle-fed infants. Neither of these comparisons showed a difference in time taken from five suckle feeds out of eight feeds (63%) to eight suckle feeds out of eight feeds (100%).

DISCUSSION

The results showed that preterm infants remained in hospital a considerable time even after achieving full suckle feeds and adequate weight gain. One possible explanation for this is the difficulty in predicting when an infant will achieve full suckles feeds. Policies that require the establishment of full suckle feeding before considering discharge often causes delay. This is usually because discharge plans are not made until the infant achieves full suckle feeds with good weight gain. A large majority of the babies will reach full suckle feeds (with adequate weight gain) within two days of achieving five suckle feeds out of eight feeds and this may be the appropriate time to begin rooming-in.

A small randomised controlled trial conducted in the neonatal nursery at a Texas (USA) children's hospital compared progress within two groups of infants (Simpson et al 2002). Thirteen were randomly allocated to the experimental group and had suckle feeding progressed quickly once full tube feeds were established and sixteen were allocated to the control group. This group's initiation of oral feeding and progression of suckle feeding was at the discretion of their attending physicians. The experimental group had a mean of 2.8 days from 50% feeds to full suckle feeds and the control group had a mean of 4.3 days from 50% feeds to full suckle feeds. These results are consistent with our data which

Table 2: Time (days) to achieve various proportions of suckle feeds

	Mean (SD)	Min	1st Q	Median	3rd Q	Max
50% to 100% suckle feeds	4.1 (3.1)	0.0	2.0	3.0	5.0	15.0
63% to 100% suckle feeds	1.8 (2.0)	0.0	0.0	1.0	2.0	10.0

Table 3: Time (days) to achieve various proportions of suckle feeds and discharge home

	Mean (SD)	Min	1st Q	Median	3rd Q	Max
50% suckle feeds to discharge	7.9 (4.1)	2.0	5.0	7.0	10.0	22.0
63% suckle feeds to discharge	5.6 (3.8)	1.0	3.0	5.0	7.0	19.0
100% suckle feeds to discharge	3.8 (3.3)	0.0	2.0	3.0	5.0	18.0

showed a mean time from 50% to full suckle feeds of 4.1 days. The experimental group in the Simpson et al study demonstrates that this duration can be decreased with more rapid progression from tube to suckle feeds.

Our data shows that rooming-in does not enhance earlier discharge because our current practice is to wait until the baby has achieved full suckle feeds before considering rooming-in. Findings from the current study have encouraged us to trial an new approach:

1. Organise for mothers to room-in for two nights once their baby has progressed to five suckle feeds out of eight feeds with a view to discharge when 100% suckle feeds are attained (if gaining weight); or

2. Mother's not wishing to room-in could have their day of discharge planned for 2-3 days after progressing to five suckle feeds out of eight feeds.

These changes will provide the opportunity for women to exclusively breast feed before their infants discharge. If women do not room-in their infants are bottle-fed overnight, to ensure they are capable of taking eight feeds.

In today's environment of cost-effective health care, tertiary hospital beds are a valuable commodity and examination of any possible efficiency can be beneficial to cost saving. It is important that clinicians continue to examine ways to achieve earlier or timely discharge in the neonatal nursery (McGrath and Bodea Braescu 2004). The average daily cost of a shared public bed for a neonate is approximately AUD $250-$300 (Queensland Health 2005). Potential bed cost savings of AUD $1000-$1200 is possible if the length of stay is reduced by four days. This is without the inclusion of medical and nursing hours and clinical supplies.

CONCLUSIONS

We have determined that the overwhelming majority of well preterm infants in our nursery achieve full suckle feeding within two days of achieving five suckle feeds out of eight feeds. We speculate that if discharge is planned for two days after achieving five suckle feeds out of eight feeds that most babies will be able to be discharged home as planned, decreasing overall duration of hospital stay.

REFERENCES

Anderson, N.A. 1945. Clinical considerations of the premature infant, in W.E. Nelson Textbook of Pediatrics (4th ed), Philadelphia: WB Saunders.

Gardener, S.L., Johnson, J.L. and Lubchenco, L.O. 2002. Initial nursery care, in G.B. Merenstein and S.L. Gardener (eds) Handbook of Neonatal Intensive Care (5th ed). St Louis: Mosby, pp.70-101.

Kliethermes, P.A., Cross, M.L., Lanese, M.G., Johnson, K.M. and Simon, S.D. 1999. Transitioning preterm infants with nasogastric tube supplementation: increased likelihood of breastfeeding. Journal of Obstetric Gynecological Neonatal Nursing, 28(3):264-271.

McCain, G.C., Gartside., Greenburg, J.M. and Lott, J.W. 2001. A feeding protocol for healthy preterm infants that shortens time to oral feeding. Journal of Paediatrics, 139(3):517-522.

McGrath, J.M. and Bodea Braescu, A.V. 2004. State of the science: feeding readiness in the preterm infant, Journal of Perinatal and Neonatal Nursing, 18(4):353-368.

Medhurst, A. 2005. Feeding protocols to improve the transition from gavage feeding to oral feeding in healthy preterm infants: a systematic review, Evidence in Health Care Reports, 3(1):1-25.

Merrit, T.A., Pillers, D. and Prows, S.L. 2003. Early NICU discharge of very low birth weight infants: a critical review and analysis. Semin Neonatol, 8(2):95-111

Nelson, W.E., Behrman, R.E. and Vaughan, V.C. 1983. Textbook of Pediatrics (12th ed). Philadelphia: WB Saunders.

Pickler, R.H. and Reyna, B.A. 2003. A descriptive study of bottle-feeding opportunities in preterm infants. Advances in Neonatal Care, 3(3):139-146.

Queensland Health. 2005. Queensland Health, fees and charges manual. Brisbane: Funding and Resourcing Branch.

Raddish, M. and Merritt, T. 1998. Early discharge of premature infants: a critical analysis. Clinical Perinatology, 25(2):499-520.

Simpson, C., Schanler, R.J. and Lau, C. 2002. Early introduction to oral feeding in preterm infants. Paediatrics, 110(3):517-522.

Touch, S.M., Greenspan, J.S., Kornhauser, M.S., O'Connor, J.P., Nash, D.B. and Spitzer, A.R. 2001. The timing of neonatal discharge: an example of unwarranted variation? Paediatrics, 107(1):73-77.

Returning to nursing after a career break: elements of successful re-entry

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ABSTRACT

Background
The well reported shortage of registered nurses (RNs) means recruitment of RNs not currently in the nursing workforce is an option. Nurses re-entering the nursing workforce are widely considered to be valuable staff members across many health care settings, bringing maturity, life experience and enthusiasm to their work.

Objective
To survey the literature to identify the special needs of the re-entry RN and suggest elements of a successful re-entry recruitment, training and retention policy.

Conclusions
The typical re-entry RN is a 40 year old female with school-aged children. She may be unaware of re-entry opportunities in her area. She wants family friendly shifts and an acknowledgment of family responsibilities; a paid, on-the-job refresher course that is relevant and that guarantees future employment; as well as ongoing support to help overcome anxiety and loss of confidence. Positive support from existing staff is crucial.

INTRODUCTION

The recruitment and retention of registered nursing staff is an area of international concern. Buchan and Calman (2004) state that the shortage of health care personnel in general and registered nurses in particular is the biggest obstacle in improving health and wellbeing worldwide. Current nursing shortages in Australia, Canada, the UK and the USA are at least partly attributable to the ageing of the nursing workforce and the low number of new recruits into the profession (Buckis 2004; Durand and Randhawa 2002; NSW Health 2002; Roberts 2002; Buerhaus et al 2000; Buchan 1999; Gauci Border and Norman 1997; Maynard 1993). Adding to the shortage of Australian nursing staff is an ageing population needing more health services (Buckis 2004).

There is a large pool of educated nurses who are still registered but who are not currently working in nursing. There has been much interest in this group as a source of recruitment due to the cost efficiency of refreshing a re-entry RN compared to preparing a 'new recruit' from scratch (Roberts 2002; Quant 2001).

In 1998, the New South Wales Health Department Nursing Workforce Research Project (Nursing and Health Services Research Consortium 2000 - NHSRC) surveyed over 3,000 RNs and enrolled nurses who were currently registered by the NSW Nurses' Registration Board but not working in nursing at that time. They found the typical non-practising RN is a 40 year old woman with children under the age of 12. She is not interested in inflexible rotating rosters and is wary of physically and emotionally draining situations. She wants paid, on-the-job refresher training and part-time, family friendly shifts. She trained in a hospital and may have undertaken additional specialty training. This profile is similar to that found by other research set in Britain and the USA (eg Durand and Randhawa 2002; Kalnins et al 1994).

Re-entry RNs can be valuable members of the health care team. Life experience, previous work experience and maturity are seen as assets particularly in areas requiring autonomy and leadership. Their motivation for returning to nursing is generally a deep love of the profession, and the enthusiasm of the re-entry RN is often noted (Durand and Randhawa 2002; Stark et al 2001; Pett 2001; Wilcock, 2000). RNs educated locally have advantages over nurses educated in other countries in that language and cultural differences are minimised and they are likely to be more quickly assimilated into local settings.

Retention rates for re-entry RNs are also widely reported as being excellent (eg Blankenship et al 2003; Williams et al 2002; Templeman 2001; Nottingham and Foreman 2000; Alden and Carrozza 1997; Kalnins et al 1994). It is acknowledged however that unsuccessful re-entry programs are not as likely to be reported in the journals as successful ones.

There are many reasons why RNs leave the profession. A survey of non-returning RNs in the Norwich area of England identified pregnancy as the main reason for leaving the nursing workforce (Durand and Randhawa 2002). A large number of RNs move out of nursing to a different but complementary field (NSW Health 2000). An alarming number of non-returning RNs in the NSW survey claimed work related injuries prevented them from returning.

There is no shortage of anecdotal accounts both in Australia and in other countries of RNs leaving nursing for negative reasons (eg Meredith 2002). Night duty and rotating rosters are considered highly undesirable (Durand and Randhawa 2002; NSW Health 2000; Bentham and Haynes 1990). There are many anecdotal accounts of unsupportive management, patronising medical staff or unrealistic expectations (eg Crouch 2002). Several papers speak of the importance of respect and support from nursing colleagues (especially managers) and collegiate relationships with medical staff and note their close relationship with job satisfaction (Manion 2004; Adams and Bond 2000; Gauci Borda and Norman 1997).

This pool of RNs can only be effectively recruited and retained in the workforce if due consideration is given to why they left and how their circumstances

and needs have changed. A nurse that left due to pregnancy may now need shifts that fit increased family responsibilities. An RN that left because he or she felt overwhelmed and burnt out will not be interested in going back into a similar situation.

Surveys conducted in Australia and in other countries investigating what returning RNs want, highlight three areas that are of high concern: flexible, 'family friendly' shifts and an acknowledgment by managers of family responsibilities; the need for refreshing existing skills and learning new ones; and the need for ongoing support (Bullen 2003; Durand and Randhawa 2002; Williams et al 2002; Stark et al 2001; Templeman 2001; Nottingham and Foreman 2000; Wilcock 2000). This paper will review the literature around each of these factors.

METHODS

A literature review was undertaken using CINAHL and Medline, searching under the terms refresh, re-entry, recruitment, nursing education/courses and retention. Websites such as the NSW Health Department and the International Council of Nurses were also searched for information.

DISCUSSION

The flexible, family friendly workplace

The cost and scarcity of childcare means that many returning RNs are limited in the shifts they can work (Durand and Randhawa 2002; NHSRC 2000; Bentham and Haynes 1990). Bentham and Haynes (1990) reported that the provision of part-time work with hours to suit parents of school aged children was a major drawcard for RNs not in the nursing workforce thinking of returning to work. This need scored more highly than other factors such as the offer of better basic pay and improved nurse to patient ratios.

Family responsibilities cluster at either end of the traditional working day: from 0700 to 0900 - breakfast and taking children to school, and 1500 to 2000 - school collection, homework supervision, evening meal, bath and bed time. Some returning RNs state that they are only available from 1000 to 1400 on school days (NSW Health 2000).

Managers should be encouraged to match shift times with times that re-entry RNs are available for employment if they seek to recruit them. A 1000 to 1400 short shift has traditionally been seen as totally impractical, the most obvious problems arising in areas where RNs are responsible for total patient care. However some areas may be more amenable to this short shift. Examples include aged care facilities where team nursing rather than total patient care is more common and outpatient facilities, operating theatres (short cases) and community care where the RN's efforts are focussed on a single client for a short period of time. Outpatient departments, day surgery centres and other Monday to Friday, set day shift venues have something further to gain from an 'overlap' shift. Full day shift nurses are more likely to be able to get their lunch break on time and it allows time for regular staff to undertake research, in-services and practice assessment, something traditionally relegated to the time when afternoon and morning shifts overlap.

Half day or half evening shifts can also provide desired flexibility and should be considered.

Night duty is a major stumbling block. It scores highly on the surveys of disincentives to return to nursing (NSW Health 2000; Bentham and Haynes 1990). So once again, areas not requiring night work will naturally be more attractive to re-entry RNs.

Not all re-entry RNs who want flexible shifts are parents. The report into the recruitment and retention of RNs in NSW noted that contemporary lifestyles and expectations of work are very different from the past (NSW Health 2002). Many RNs simply want more time to do other things.

Re-entry recruitment and training

Employers may be quite justifiably wary of 'out of practice' RNs, with some health care managers identifying them as potential liabilities (Bullen 2003; Roberts 2002; Pett 2001). Re-entry training must provide some reassurance for employers. In some jurisdictions, refresher training is a mandatory requirement after a set number of years out of the workforce (eg South Australian Nursing and

Midwifery Registration Board). Other areas leave it to the discretion of the individual RN and their employer (eg NSW Nursing and Midwifery Registration Board). Some form of assessment and accreditation by suitably trained educators is desirable if not essential under current occupational health and safety legislation for employers and provides a clear and confidence boosting confirmation for the RNs themselves.

Re-entry RNs are often reluctant to return to the profession, speaking of feeling out of touch and fearful of changes such as new technology and methods (Hitchcock 2003; Quant 2002; Waibel 2002; Wilcock 2000). The majority of RNs returning after a career break say they want a refresher course (eg Blankenship et al 2003; Quant 2001; Nottingham and Foreman 2000; Bentham and Haynes 1997; Maynard 1993) and yet the NSW survey (NSW Health 2000) shows that re-entry RNs are often unaware of retraining opportunities. This may mean that a large pool of non-practising RNs is not even considering returning because they are unaware of opportunities that exist to support them. Refresher opportunities therefore need to be advertised in the public realm, not just on health department and registration board websites.

Making refresher opportunities known in the general news media has been part of a successful, initial recruitment strategy. Southampton University NHS Trust used an intensive recruitment campaign including interviews on local radio, local press articles, shopping centre displays and hospital open days to not only raise the possibility of returning to the nursing workforce but to show how returning nurses would be updated and supported on the job (Templeman 2001). The Post Acute Care Service at Prince of Wales Hospital in Randwick, Sydney, NSW, Australia, recruited re-entry RNs by advertising their refresher program locally then offering an information morning tea (Williams et al 2002).

There are several problems with refresher courses that stand apart from guaranteed employment. Firstly, the cost may be prohibitive. Many nurses return to the workforce because they cannot afford not to work. Courses such as the NSW Health Department 'Re-Connect' that allow a re-entry RN to be paid as they retrain are therefore seen as a great advantage.

A hospital based re-entry course in the United States of America found that paying a re-entry RN a salary while refreshing was only slightly more expensive than orientation of a work ready RN. However with an 82% retention rate it worked out considerably cheaper in the long run to have their RN vacancies filled with re-entry nurses rather than agency nurses (Morrison et al 2005).

Ward or area specific re-entry programs designed to develop the skills of RNs already selected for future employment are preferred to stand alone courses. The Post Acute Care Service at Prince of Wales Hospital is an example (Williams et al 2002).

The benefits of training and orienting specifically to a unit compared to moving around to many clinical areas are debated. Re-entry RNs, it may be argued already have a breadth of experience and exposure to a range of clinical areas. One of the principles of adult learning is that the content should be relevant. Orientation to the wards or services that form part of the RNs future network of patient care is certainly desirable and relevant. For example, a re-entry RN working on a surgical ward may find it helpful to spend a day in the operating theatres, tracing the journey of a patient through admission, anaesthesia, recovery and return to the ward.

It is apparent that certain areas need to be addressed in a refresher course, regardless of previous experience or how long an RN has been out of the workforce. Knowledge and skills fall into three broad areas: skills and knowledge that are retained; skills and knowledge that need updating; and skills and knowledge not yet learned.

Like riding a bicycle, certain tasks and skills are rarely forgotten. Basic nursing care such as bathing, toileting and feeding falls into this category. Benner's (1984) helping role domain contains many of the

skills that become innate for RNs, such as acting as an advocate, providing comfort and communicating through touch.

Other skills where the nurse may have been competent when previously practised may need to be revised in the interests of patient safety, such as administering medications, care of IV fluids, aseptic technique, documentation, assessment of the patient and development of a care plan.

Finally there are areas of knowledge that may be completely new: new drugs, new classes of drugs, new surgical techniques, new treatment and support technologies and the RNs role in working with these.

In one sense, there are very few things that are completely new. An aural thermometer may be new technology for re-entry RNs but taking a temperature is very familiar ground. Hall and Andre (1999), in their refresher course placed a great deal of importance on students' prior learning and skills and encouraged them to think of new technologies as extensions of that knowledge rather than something that replaced it. They report that psychologically this is a very helpful approach.

Some previously taught skills have been shown to be detrimental to the patient and need to be updated. For example in the 1970s, nurses were encouraged to give reddened pressure sites a good rub which was considered to improve circulation to the area. It is now recognised that it is more likely to damage the already compromised, underlying tissues. Similarly, it was not uncommon to use agents such as boric acid and peroxide solutions to 'clean up' sloughy wounds. It is now known that these solutions can destroy granulating tissue and actually delay healing. Re-entry teachers and developers of curricula should be aware of these former, common practices. Quant (2001) speaks of the importance of introducing the idea of evidence based or research informed practice which may be a new concept to some re-entry RNs.

Returning RNs should also be encouraged to read contemporary nursing journals to keep up with changes in their field.

One size does not fit all when it comes to course style. There are many different re-entry course models described in the literature: an on-line course with clinical practicum (White et al 2003), correspondence course with clinical practicum (Alden and Carrozza 1997); university based course (Morrison et al 2005); preceptor based (NSW Health Re-Connect 2004; NSW Health 2002; Durand and Randhawa 2002; Wilcock 2000); classroom / clinical laboratory taught courses (Blankenship et al 2003; Williams et al 2002) and mixed (Hitchcock 2003; Stark et al 2001; Maynard 1993). Most have the same philosophic framework and similar elements can be detected in each.

Experience of schooling and education differs widely with age as does styles of learning (Quant 2001). While an on-line course may best suit some RNs, others may be intimidated by the technology and require intensive support in order to use it effectively (White et al 2003).

The need for effective educators and preceptors is stressed in the literature (Blankenship et al 2003; Hitchcock 2003; White et al 2003; Durand and Randhawa 2002; Williams et al 2002; Stark et al 2001; Quant 2001; Wilcock 2000; Maynard 1993) and emphasises the need for clinical competency.

Hall and Andre (1999) make a point of including RN specialists as guest speakers in their refresher course to give up to date, practical information and to serve as role models of the modern professional RN.

Support

Re-entry RNs are often reluctant to return to the profession, speaking of feeling out of touch and fearful of changes such as new technology and methods (Hitchcock 2003; Waibel 2002; Quant 2001; Wilcock 2000; Hall and Andre 1999. Quant (2001) notes, that one of the causes for anxiety is an under-estimation of their ability to learn new things.

The importance of understanding support for returning RNs cannot be underestimated. There are several published accounts of how the presence of a sympathetic preceptor prevented the loss of an

overwhelmed returning RN (Durand and Randhawa 2002; Templeman 2001; Wilcock 2000).

Returning RNs often express a deep need for respect. They do not want to be patronised but want recognition, if not for their nursing skills then at least for their life experience (Hitchcock 2003; Quant 2002; Pett 2001; Wilcock 2000). These authors also discuss the importance of preparing existing staff to be accepting and supportive and to see the returning RN as an asset. Attitudes of existing staff are a well known, make or break factor for graduate nurses. It is similar for re-entry nurses.

Several papers talk of the positive effects that returning RNs can have on a unit as a whole (Durand and Randhawa 2002; Stark et al 2001; Pett 2001; Wilcock 2000). Returning RNs often have an enthusiasm that can reinvigorate a flagging team.

Individuals involved in preceptor roles with the returning RN also gain benefits: "There have been times when they've asked you a question and you can feel the cogs turn as you drag up this information you learned once and just stored away. You then think, it might have changed, I'll have to look it up" (RN educator) (Stark et al 2001 p.291).

CONCLUSION

The global shortage of RNs has various causes across different regions. In Australia, North America and the UK an ageing workforce and a decreasing number of recruits is a significant problem. The recruitment of RNs currently not in the nursing working is an attractive option and numerous programs have been successful in recruiting and retaining returning RNs in the workforce. Three basic needs of a returning RN are: family friendly, flexible shifts; a retraining course; and consistent, confidential support. Essential elements of a successful re-entry program centre on good preparation of preceptors and educators; providing respect for the RNs' life experience; engaging the support of other staff; and an individualised approach to curriculum. It is also important the phenomenon of 'getting back on the bike' where old skills come back easily and the

challenge of 'unlearning' things we now consider poor practice are taken into account.

The aim of an effective refresher course is to produce a competent practitioner. Adequate assessment and accreditation will ensure the achievement of this goal.

REFERENCES

Adams, A. and Bond, S. 2000. Hospital RNs' job satisfaction, individual and organisational characteristics. *Journal of Advanced Nursing*, 32(3):536-543.

Alden, K.R. and Carrozza, M. 1997. The North Carolina AHEC self-paced RN refresher program: an evaluation of the first two years. *Journal of Continuing Education in Nursing*, 28(1):14-19.

Benner, P. 1984. *From novice to expert: excellence and power in clinical nursing practice*. California: Addison-Wesley.

Bentham, G. and Haynes, R. 1990. Attitudes to a return to nursing: a survey in the Norwich Health District. *International Journal of Nursing Studies*, 27(3):287-296.

Blankenship, J., Winslow, S. and Underwood Smith, A. 2003. Refresher course for inactive RNs facilitates workforce re-entry. *Journal for Nurses in Staff Development*, 19(6):288-291.

Buchan, J. 1999. The 'greying' of the United Kingdom nursing workforce: implications for employment policy and practice. *Journal of Advanced Nursing*, 30(4):818-826.

Buchan, J. and Calman, L. 2004. T*he global shortage of registered nurses: an overview of issues and action*: http://www.icn.ch/global/summary.pdf (accessed March 2005).

Buckis, C. 2004. A long memory for nursing shortages. *The Lamp*, 61(6):20-21.

Buerhaus,P.I., Staiger, D.O. and Auerbach, D.I. 2000. Why are shortages of hospital RNs concentrated in specialty units? *Nursing Economics*, 18(3):111-116.

Bullen, M. 2003. Overcoming the undersupply: supporting midwives' return to practice. *Australian Midwifery*, 16(4):14-17.

Crouch, D. 2002. Should I stay or should I go? *Nursing Times*, 98(4):24.

Durand, M. and Randhawa, G. 2002. RNs' views about returning to practice after a career break. *British Journal of Nursing*, 11(7):477-485.

Gauci Border, R. and Norman, I. 1997. Factors influencing turnover and absence of RNs: a research review. *International Journal of Nursing Studies*, 34(6):385-394.

Hall, C. and Andre, C. 1999. RNs re-entering the workforce: a special needs group. *Contemporary Nurse*, 8(1):238-244.

Hitchcock, R. 2003. Many happy returners. *Nursing Standard*, 17(34):18.

Kalnins, I., Phelps, S. and Glauber, W. 1994. Outcomes of RN refresher courses in a midwestern city. *Journal of Continuing Education in Nursing*, 25(6):268-271.

Manion, J. 2004. Nurture a culture of retention. *Nursing Management*, 35(4):28-39.

Maynard, C. 1993. *A survey of registered nurses returning to the workforce after completing a refresher course at the NSW*

College of Nursing. Unpublished Master of Public Health thesis, The University of Sydney.

Meredith, R. 2002. I quit because it's an impossible task. *Nursing Times*, 98(4):25-26.

Morrison, R.S., Stone, G.L. and Wilson, M. 2005. RN refresher courses: hospital-based versus university-based. *Journal for Nurses in Staff Development,* 21(4):177-83.

Nottingham, E and Foreman, K. 2000. Creating the right environment for return-to-practice candidates. *Nursing Standard,* 14(32):44-45.

Pett, C. 2001. Helping old dogs learn new tricks: effective teaching and assessment for returning practitioners. *Midwifery Digest*, 11(3):305-307.

Quant, T. 2001. Education for RNs returning to practice. *Nursing Standard*, 15(17):39-41.

NSW Health. 2004. *Re-Connect refresher programs*. Available at: http://www.health.nsw.gov.au/nursing/refresher.html (accessed January 2006).

NSW Health. 2002. *Recruitment and retention of RNs*. Progress Report. Office of the Chief Nursing Officer available at: http://www.health.nsw.gov.au/nursing/publications.html (accessed January 2006).

NSW Health. 2000. *New South Wales Nursing Workforce Research Project.* Nursing and Health Services Research Consortium: NSW, Australia.

Roberts, V. 2002. Responding to Code Bill: workforce in crisis community partnerships returning RNs to the workforce. *Georgia Nursing*, 61(4):26-27.

Stark, S., Warne, T. and Street, C. 2001. Practice nursing: an evaluation of a training practice initiative. *RN Education Today,* 21(4):287-296.

Templeman, E. 2001. Supporting nurse returners. *Nursing Times,* 97(44):36.

Waibel, R. 2002. An administrator returns to practice as a perioperative RN. *AORN Journal*, 76(5):862-865.

White, A., Roberts, V. and Brannan, J. 2003. Returning RNs to the workforce: developing an online refresher course. *Journal of Continuing Education in Nursing*, 34(2):59-63.

Wilcock, A. 2000. A welcome return. *Nursing Standard*, 14(30):18-20.

Williams, A., Brown, A., Crispin, D. and Gibson, D. 2002. Targetting out of the workforce RNs: a promising local recruitment strategy. *Collegian*, 9(1):8-11.

The development of a critical thinking conceptual model to enhance critical thinking skills in middle-eastern nurses: a middle-eastern experience

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KEY WORDS

conceptual model; critical thinking; critical thinking strategies

ABSTRACT

Objective
This paper aims to describe the development of a critical thinking conceptual model which was constructed to guide the teaching and evaluation of critical thinking skills to Middle-Eastern nurses.

Setting
A large tertiary hospital situated in the Middle-East, which adopted North American standards of healthcare.

Subjects
Twenty Middle-Eastern female nurses who graduated from a nursing college in the Middle-East, wherein basic nursing subjects were taught, but critical thinking was not included in the curriculum of the nursing content.

Primary Argument
Critical thinking is an essential element for nurses who function in today's complex healthcare domain. Nursing organisations worldwide have recognised the need to develop and stimulate higher-order critical thinking by using innovative strategies to stimulate critical thinking abilities. This Middle-Eastern hospital sought to promote critical thinking skills in Middle-Eastern nurses, and a Professional Development Nursing Program was established. An education component to promote critical thinking was developed and integrated into the curriculum of this program.

Conclusion
Nurses and nurse educators favoured a model that supported critical thinking. Reasons given refer to improving professional standards of practice, stimulating inquiry and promoting sound reasoning in practice, as well as contributing to personal and professional development.

The model was effective for this nursing educational program and could be duplicated by other programs to create a learning environment for developing critical thinking, as well as promoting professionalism in nursing.

INTRODUCTION

A large tertiary Middle-Eastern hospital recognised the need to upgrade Middle-Eastern nurses' knowledge and skills to meet North American registered nurse standards, where the National League of Nursing (1987) mandated the necessity to measure critical thinking skills in nurses. To meet these standards, the hospital established a Professional Development Nursing Program to develop nurses to practice competently and demonstrate critical thinking skills. An education component to promote critical thinking abilities in Middle-Eastern nurses was introduced and integrated into the curriculum. The Professional Development

Nursing Program was of twelve months duration. Nurses had to score at least 120 on the Oxford English test to enter the program because English was the medium of instruction and documentation. The program consisted of twenty nurses, an administrator, a senior nurse educator and three nurse educators. One of the nurse educators was of Middle-Eastern origin who supported the nurses with translation issues as required.

An extensive review of the literature was undertaken and a conceptual framework was constructed. The conceptual framework is adapted from Arangie (1997); Colucciello (1997); Dexter et al (1997); Paul (1993; 1990); King (1995) and Whiteside

Figure 1: A conceptual framework to guide teaching and evaluation of critical thinking skills

	CRITICAL THINKING (CT)			
Dimensions	Cognitive Skills	DispositionSkills	CT Strategies	CT Criteria
Variables	Analysis Interpretation Inference Explanation Evaluation Self-regulation	Open-minded Inquisitive Truth-seeking Analytical Systematic Self-confident In Reasoning	Questioning Small Group Role-play Debate	Clarity Precision Relevance Depth Fairness Accuracy Logicalness Completeness
Evaluation	**Nurse Educators**	Observations by senior educator Interviews with senior educator Feedback by senior educator Focus group interview with senior nurse educator Peer evaluations Combined focus group interview		
	Students	Observations by senior nurse educator to assess their co-operative learning. For example, class interaction and participation; presentations of group work, case studies, debates, homework assignments. Interviews with senior nurse educator. Focus group interview with senior nurse educator and peers. Generating critical thinking questions. Combined focus group interview.		

The conceptual model is adapted from Paul (1993, 1990); Facione et al (1998); King (1995); Arangie (1997); Colucciello (1997); Dexter et al (1997) and Whiteside (1997), and reflects the dimensions, variables and evaluation of critical thinking.

(1997) and comprises the dimensions, variables and evaluation of critical thinking, which forms the basis for this program. This conceptual framework appears as figure 1.

LITERATURE REVIEW

As a concept, critical thinking has been expressed in several ways. Critical thinking is an essential element for nurses who function in today's complex health environment, in which they are required to deal with issues such as advanced technology, greater acuity of clients in hospital settings, the ageing population and complex disease processes. Facione et al (1994) state that critical thinking is both a skill and a habit of mind and one must be disposed to think critically as well as have the skills to do so. At the core of critical thinking are the cognitive skills of analysis, interpretation, inference, evaluation, explanation and self-regulation. The dispositions toward critical thinking can be understood in terms of open-mindedness, inquisitiveness, cognitive maturity, truth-seeking, analyticity, systematicity and self confidence (Facione et al 1994) (the cognitive and disposition skills are explained later on). For the purpose of this article, critical thinking is identified as 'purposeful, self-regulatory judgement which results in interpretation, analysis, evaluation and inference as well as explanation of the evidential, conceptual, methodological, criteriological or contextual considerations upon which that judgements is based' (Facione 1990 p.4).

In nursing literature, various methods are discussed that could be employed to enhance critical thinking skills. The literature suggests the importance of using critical thinking strategies. For example, Miller and Malcolm (1990) advocated instructional strategies such as written assignments, problem solving and so forth to foster critical thinking that can be integrated into all levels of nursing curriculum. King (1995) recommends the use of questioning to stimulate higher order thinking processes. Stringfield (1995) suggests video presentations, while Whiteside (1997) advises the use of debate and case studies to enhance core critical thinking skills of analysis,

inference, judgement, explanation, interpretation and evaluation.

On the whole, questioning, small group activities, role-play and debate are well supported by many authors (such as: Jones and Sheridan 1999; Daly 1998; Sellappah et al 1998; Fowler 1998; Billings and Halstead 1998; Abegglen and O'Neill Conger and Mezza 1996; Morin 1997; Oermann 1997; Whiteside 1997; Lipman and Dietrick 1997; Lenburg 1997; Walsh 1997; Elliott 1996; Brookfield 1987; Malek 1986).

DISCUSSION

In the Professional Development Nursing Program, a senior nurse educator well versed in critical thinking provided guidance and support to nurse educators in this concept by providing them with literature on critical thinking and discussions on the subject. The classroom was arranged in a 'U' shape, to allow participants to have eye contact and the ability to question and interact with each other. It also permitted facilitators the opportunity to interact openly with the nurses. The senior nurse educator observed nurse educators in the classroom to support and guide them in using the dimensions and variables of the model effectively, to promote critical thinking skills in nurses. The observer listened, and noted nurses' behaviours. The critical thinking conceptual model is reflected in figure 1 and explained below.

The critical thinking conceptual model

A conceptual model/framework development was based on the relevant literature to guide the development of critical thinking skills in Middle-Eastern nurses. This model is divided into three components consisting of:

- dimensions

- variables

- evaluation

Dimensions and variables

The dimensions and variables of critical thinking will be explained simultaneously as they are closely inter-related. The term 'dimensions' relates to

cognitive and dispositions which are crucial to becoming an effective critical thinker (Colucciello 1997) and other interacting elements such as, critical thinking strategies and critical thinking criteria (also known as intellectual criteria), required to promote critical thinking skills (Paul 1993). The dimensions of critical thinking are explained as follows:

- Cognitive skills: analysis, interpretation, inference, explanation, evaluation and self-regulation (Facione et al 1998, 1994);

- Disposition skills: open-mindedness, inquisitive, truth-seeking, being analytical, systematic and self-confident in reasoning (Facione et al 1998, 1994);

- Critical thinking strategies: questioning, small group activity, role-play and debate; and

- Critical thinking criteria (intellectual criteria): clarity, precision, specificity, relevance, depth, fairness, accuracy, logicalness and completeness (Paul 1993, 1990).

The variables associated with each of the dimensions as used in this program will be described. The variables related to cognitive skills are as follows:

- Analysis: examining ideas/arguments in problems, objective and subjective data and possible courses of action;

- Interpretation: accurately interpreting problems as well as objective and subjective data from common information sources;

- Inference: querying claims, assessing arguments (recognising faulty reasoning) and reaching conclusions, which are appropriate;

- Explanation: clearly explaining and defending the reasoning by which an individual arrives at specific decisions in the context of the health care of the patient.

- Evaluation: evaluating information to ascertain its probable trustworthiness as well as its relevance; and

- Self-Regulation: constantly monitoring one's own thinking using critical thinking criteria and correcting oneself (Facione et al 1998).

Facione et al (1998) and Chenworth (1998) stress the importance of developing and changing dispositions or attitudes, such as being open-minded, inquisitive, truth seeking and so forth. These authors also advocate that while content knowledge and cognitive skills (for example, analysis and so forth) are necessary, they emphasise that without stimulation of dispositions, engagement of critical thinking will not occur. The variables associated with disposition skills are explained as follows.

Disposition Skills

- Open-mindedness: appreciating alternative perspectives and values of others who hold different opinions; understanding other cultural traditions in order to gain perspectives on self and others;

- Inquisitiveness: curious and enthusiastic in wanting to acquire knowledge and to know how things work, even when the applications are not immediately apparent;

- Truth seeking: courageous about asking critical thinking type questions to obtain the best knowledge;

- Analytical: thinking analytically and using verifiable information; demanding the application of reason and evidence;

- Systematic: focused and diligent in approaching complex problems; and

- Self-confidence: trusting one's own reasoning and using critical thinking skills in order to respond to problems and decisions based on scientific evidence and facts (Facione et al 1998).

Bittner and Tobin (1998) indicated that facilitators should be willing to expand their teaching repertoires to include instructional methods such as critical thinking strategies, to open nurses' minds, broaden and augment their ways of thinking to assist growth

and develop cognitive skills in order to make a change in dispositions. The following variables (questioning, small group activity, role-play and debate) used in this model relating to critical thinking strategies are now described.

Critical Thinking Strategies

- Questioning: Case (1994) and King (1995) considered that the hallmark of a critical thinker is an inquiring mind. These authors assert that good thinkers are good questioners in that they question whatever they see, read, hear or experience. Good thinkers also frame questions in a manner such as 'what is the nature of this?'; 'what does this mean?'; 'why is it happening?'; 'what if?' (King 1995). Walsh (1997) commented that in nursing, 'rounds' are frequently used as a technique of observation, inquiry and close scrutiny of decisions for nursing diagnosis or treatment. During these rounds nurses are expected to problem solve their patients' conditions and plan their daily care. Therefore, thinking and framing critical thinking questions can assist participants to predict outcomes and create alternatives to deal with problems confronting them.

- Small group activity: Small group activity encourages participant interaction and enables them to share their ideas and examine individual assumptions. Small groups are less threatening and promote comfort to formulate questions for which participants may not have the answers. This technique promotes collaboration with peers. Students have the opportunity to compare points of view and interpretations and to "contrast their critical thinking styles with their peers" (Neill et al 1997 p.31).

- Debate: The process of debate entails analysing, critiquing and constructing arguments, all of which are vital elements of critical thinking and "higher level skills" required to participate in this activity (Bell 1991 p.6). Doyle (1996) supported Bell and indicated that debate is an effective teaching method that develops the skill of argumentation. Its environment of open inquiry and debate provides opportunities for students to investigate their own feelings, notions and opinions. This results in the student becoming more involved with the topic, challenging ideas, as well as refuting them, and enhancing listening and communication skills. Questioning, wondering, thinking aloud and taking intellectual risks are encountered in a debate. Garrett et al (1996) further stated that educational debate has been recognised in the educational literature as a useful instructional strategy for promoting critical thinking and verbal communication abilities. Debate provides a comprehensive and innovative learning mode when integrated as an essential aspect of the curriculum.

- Role-play: Chubinski (1996) stated that through the power of role-play, people can be put into circumstances that conflict with their 'normal' life style and choices, hence providing perfect opportunity to appreciate alternative views and opinions on a first hand basis in a non threatening environment. Fuszard (1989) described role-play as an effective means for developing decision-making and problem-solving abilities. The problem-solving process can be analysed within the context of role-play. The post-play discussion gives teachers an opportunity to provide analysis and formation

Table 1: Guided/stem questions adapted from King (1995 p.14)

Generic questions	Specific thinking skills induced
What would happen if?	Prediction/hypothesis
What are the strengths and weaknesses of…?	Analysis/inferencing
What is the difference between… and…?	Comparison/contrast

of new ideas and strategies in patients' care. Tools or devices were used to support critical thinking strategies such as guided/stem questions, videotapes, pre-reading homework, presentations as teaching aids to increase effectiveness of techniques (Robinson 1994). Guided questions act as a device to stimulate students to formulate their own questions based on their reading material and clinical experience (King 1995), and are illustrated in table 1. Robinson distinguishes between techniques and devices and explains that techniques are the ways in which a facilitator establishes relationships between the learner and the learning task, and they may be designed to assist the learner obtain information, acquire a skill, apply knowledge, develop creativity or achieve a change in attitude.

By contrast, devices are the instructional materials or teaching aids that increase effectiveness of techniques or strategies, "but which cannot themselves instruct" (Robinson 1994, p.101). They range from books to simulations, from films to working models, from chalk-boards to video tapes. The variables associated with critical thinking criteria are explained.

Critical Thinking Criteria

In reviewing Paul's (1993, 1990) work on critical thinking criteria, no explanations are provided by the author to describe each of the criteria. Appropriate explanations were extrapolated from the literature to 'fit' each of Paul's criteria from authors such as Fuszard (1989); King (1995); Arangie (1997) and Whiteside (1997) and described as follows:

- Clarity: communication - clear, not muffled; gets to the point; using a tone of voice to suggest openness;

- Precision: thorough with explanations; uses critical thinking-type questions;

- Relevance: asks pertinent questions on the content;

- Depth: encourages participants to generate critical thinking questions;

- Fairness: ensures no participant(s) dominates; gives positive feedback and praise; randomly selects participants to respond;

- Accuracy: thorough; particular in following teaching plan;

- Logicalness: information is presented in a logical and sequential format;

- Completeness: before closing, asks if participants have further questions; allocates time for students to generate critical thinking questions; allows for further discussions to occur.

Evaluation

Evaluation for nurse educators consisted of the senior nurse educator observing nurse educators to ascertain if they were using the dimensions and variables effectively to promote critical thinking skills. For example, were the appropriate critical thinking strategies and devices selected to enhance core critical thinking skills of analysis, interpretation, inference and so forth, to open nurses' minds and augment their way of thinking? Did they use overhead materials to demonstrate and engage in thought-provoking questions? Were the educators adhering to critical thinking criteria such as being clear, precise relevant and the like; were the stem/guided questions used to facilitate nurses in generating critical thinking questions; did nurses interact and participate?

The nurse educators were provided timely constructive feedback, advice and guided as necessary. As they became confident, peer evaluations were conducted and mutual feedback was encouraged. They were also invited to participate in a focus group interview with their peers approximately four weeks following implementation, to voice their feelings toward the use of critical thinking strategies and observations from the senior nurse educator and peers. A combined focus group (senior nurse educator, nurse educators and nurses) was conducted a further four weeks later.

Evaluations for nurses entailed observations by the senior nurse educator to assess their co-operative learning (for example, class interaction, participation

and so forth); the ability to generate critical thinking questions, initially using King's (1995) stem/guided questions, interviews and feedback. Likewise, they attended a focus group interview with their peers, followed by a combined focus group interview (senior nurse educator and nurses).

The outcome from these evaluations was positive. For example, anecdotal comments from nurses were as follows: "We like this type of teaching style"; "It's enjoyable, makes us think, argue constructively and interact with our peers"; "Also, our hands are not tired from taking notes"; "We like the stem questions as a tool to help us construct critical thinking questions, to improve our critical thinking skills." Nurse educators had similar feelings. They commented that: "Critical thinking strategies provided variety and creativity in the teaching and learning environment - the nurses' interaction and participation was stimulating and rewarding, given their tradition on rote learning".

CONCLUSIONS

Faculty members of the education program were acutely aware that for the program to have maximum success, it was essential to "consider individual differences in learners, including differences in learning styles" (Case 1994 p.106). Four critical thinking strategies were selected, namely: questioning, small group activities, debate and role-play, to promote active participation for learning to occur. Nurses and nurse educators favoured a model that supported critical thinking. Reasons given refer to improving professional standards of practice, stimulating inquiry and promoting sound reasoning in practice, as well as contributing to personal and professional development.

This program has the potential to make a significant contribution to nursing education for the following reasons. First, didactic instruction is replaced with an interactive approach. Second, working with a conceptual model makes it easier to manage complex multifaceted concepts such as critical thinking. The model maintains the focus on dialogue and experiential learning, which aids the integration of theory and practice. This model was effective for the program and could be duplicated by other programs to create a learning environment and facilitate the development of critical thinking, as well as enhancing professionalism in nursing.

If curriculums are going to become more educative and teach students to think and interact, then instructional methods must be designed to achieve this outcome. The conceptual model provides a framework for nurse educators to develop curriculum that used critical thinking. This mandates a change in the classroom environment that can only be achieved by a change in nurse educators' behaviors and attitudes.

RECOMMENDATIONS

1. Use a framework/model to provide structure and guidance.

2. Integrate critical thinking strategies into the curriculum to support the development of critical thinking skills.

3. Select appropriate critical thinking strategies and devices to promote critical thinking abilities.

REFERENCES

Abegglen, J. and O'Neill Conger, C. 1997. Critical thinking in nursing: classroom tactics that work. *Journal of Nursing Education*, 36(10):452-458.

Arangie, P.A.R. 1997. Critical thinking: the path to the future. *Tennessee Nurse*, 60(3):15-16.

Bell, E.A. 1991. Debate: a strategy for teaching critical thinking. *Nurse Educator*, 16(2):6-7.

Billings, D.M. and Halstead, J.A. 1998. *Teaching in nursing: a faculty guide*. W.B. Saunders: Philadelphia.

Bittner, N.P. and Tobin, D. 1998. Critical thinking: strategies of clinical practice. *Journal for Nurses in Staff Development*, 14(6):267-272.

Brookfield, S.D. 1987. *Developing critical thinkers*. Open University Press: Milton Keynes.

Case, B. 1994. Walking around the elephant: a critical thinking strategy for decision making. *The Journal of Continuing Education in Nursing*, 25(3):101-109.

Chenworth, L. 1998. Facilitating the process of critical thinking for nursing. *Nurse Education Today*, 18(4):281-292.

Chubinski, S. 1996. Creative critical thinking strategies. *Nurse Educator,* 21(6):23-27.

Colucciello, M. 1997. Critical thinking skills and dispositions of baccalaureate nursing students: a conceptual model for evaluation. *Journal of Professional Nursing*, 13(4):236-245.

Conger, M. and Mezza, I. 1996. Fostering critical thinking in nursing students in the clinical setting. *Nurse Educator*, 21(3):11-15.

Daly, W.M. 1998. Critical thinking as an outcome of nursing education: What is it? Why is it important to nursing practice? *Journal of Advanced Nursing*, 28(20):323-331.

Dexter, P., Applegate, M., Backer, J., Clayton, K., Keffer, J., Norton, B. and Ross, B.A. 1997. A proposed framework for teaching and evaluating critical thinking in nursing. *Journal of Professional Nursing*, 13(30):160-167.

Doyle, R.M. 1996. A strategy for understanding primary health care. *Journal of Nursing Education*, 35(8):379-381.

Elliott, D. 1996. Promoting critical thinking in the classroom. *Nurse Educator*, 21(2):49-52.

Facione, N.C., Facione, P.A., Blohm, S.W., Howard, K. and Giancarlo. C.A. 1998. *The California Critical Thinking Skills Test (CCTST): forms A and B and test manual (revised ed)*. Millbrae CA: California Academic Press.

Facione, N.C., Facione, P.A. and Sanchez. C.A. 1994. Critical thinking disposition as a measure of competent clinical judgement: the development of the California Thinking Disposition Inventory. *Journal of Nursing Education*, 33(8): 345-350.

*Facione, P.A. 1990. *Executive summary - critical thinking: a statement of expert consensus for purposes of educational assessment and instruction*. Millbrae CA: The California Academic Press.

*(The complete Delphi report, including appendices, is available from The California Academic Press as ERIC Doc.No: ED 315-423, P. Facione, Principal Investigator).

Fowler, L.P. 1998. Improving critical thinking in nursing practice. *Journal of Nurses Staff Development*, 14(4):183-187.

Fuszard, B. 1989. *Innovative teaching strategies in nursing*. Rockville, MD: Aspen Publication.

Garrett, M., Schoener, L. and Hood, L. 1996. Debate: a teaching strategy to improve verbal communication and critical thinking skills. *Nurse Educator*, 21(4):37-40.

Jones, D.C. and Sheridan, M. 1999. A case study approach: developing critical thinking skills in novice paediatric nurses. *The Journal of Continuing Education in Nursing*, 30(20):75-78.

King, A. 1995. Designing the instructional process to enhance critical thinking across the curriculum. *Teaching of Psychology*, 22(1):13-17.

Lenburg, C.B. 1997. Confusing facets of critical thinking. *Tennessee Nurse*, 60(5):11-13.

Lipman, T.H. and Deatrick, J.A. 1997. Preparing advanced practice nurses for clinical decision making in speciality practice. *Nurse Educator*, 22(2):47-50.

Malek, C. 1986. A model for teaching critical thinking. *Nurse Educator*, 11(6):20-23.

Miller, M. and Malcolm, N. 1990. Critical thinking in the nursing curriculum. *Nursing and Health Care*, 11(12):67-73.

Morin, K.H. 1997. Critical thinking: say what? Guest editorial. *Journal of Nursing Education*, 36(10):450-451.

National league for Nursing, 1987. *Curriculum revolution: mandate for change*. NLN Publication No. 15-2224: New York.

Neill, K., Lachat M. and Taylor-Panek, S. 1997. Enhancing critical thinking with case studies and nursing process. *Nurse Educator,* 22(2):30-32.

Oermann, M.H. 1997. Evaluating critical thinking in clinical practice. *Nurse Education*, 22(5):25-28.

Paul, R. 1990. *Critical thinking*. Rohnert Park, California: Sonoma State University.

Paul, R. 1993. *Critical thinking*. Santa Rosa, California: The Foundation for Critical Thinking.

Robinson, R.D. 1994. *Helping adults learn and change* (revised. ed). Wisconsin, USA: Omnibook Co.

Sellappah, S., Hussey, T., Blackmore, A.M. and McMurray, A. 1998. The use of questioning strategies by clinical teachers. *Journal of Advanced Nursing,* 18(1):142-148.

Stringfield, Y. 1995. Videos and film clips as a medium for enhancing critical thinking. *The ABNF Journal,* 6(6):158-161.

Walsh, K. 1997. Teaching tools: What if? What else? What then? A critical thinking game. *Nurse Educator*, 22(5):9-12.

Whiteside, C. 1997. A model for teaching critical thinking in the clinical setting. *Dimensions of Critical Care Nursing*, 16(3):152-162.

Advanced practice nurse's role in alcohol abuse group therapy

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ABSTRACT

The purpose of this paper is to discuss the importance of conducting groups for alcohol abuse and to present implications for the advanced practice nurse (APN) in leading these groups. The APN is situated to assist in this process not only in a competent and efficacious manner, but in a cost effective fashion. Many studies validate the need and benefit for using group therapy as an intervention for alcohol abuse. The APN can perform this task with positive outcomes, using the American Nurses Association Psychiatric Mental Health Scope and Standards of Practice (ANA 2000) as guidelines for assessing and diagnosing patients, identifying patient outcomes, planning patient care, implementing that plan, and evaluation. Many other sources, such as the USA Department of Health and Human Services *Healthy People 2010* (2000), the USA President's New Freedom Commission on Mental Health (New Freedom Commission on Mental Health 2003), and the USA Report of the Surgeon General on Mental Health (1999), can be referenced to ensure that the patient is provided with the best prevention, as well as treatment.

INTRODUCTION

The purpose of this paper is to illustrate the significance of the advanced practice nurse's (APN) role in leading alcohol abuse group therapy sessions. Nurse's roles have always been one of compassion and empathy coupled with education and prevention, so why not meld these great qualities and skills to create an empirically based intervention that will not only be successful in theory, but will offer patients a positive outcome?

Many different strategies have been used to treat alcohol abuse. With the advent of managed care, the clinician is forced to condense the length of treatment while at the same time provide the patient with quality outcomes. This poses a challenge for the health care professional, especially when dealing with co-morbidities. This paper proposes that the advanced nurse can usee empirically based treatment modalities in an effective manner, while also adhering to the constraints of managed care.

DISCUSSION

It is important to examine the history of group therapy in order to understand why it still works today and additionally to follow new trends. It is agreed that the origin of group therapy was the early 1900s, treating casualties of World War II. The thought was that more people could be treated in a shorter time period. The next phase of group therapy use was during the movement toward de-institutionalisation of the unremittingly psychologically ill patient. With the shortage of professional staff to run these groups, together with the number of patients requiring this intervention, group therapy was revised. Experimentation with different sized groups with homogeneous members gave rise to the use of techniques that met the requirements of an expansive variety of patient populations and mental health maladies. The third phase of group therapy evolution was precipitated by health care reform. The progression has come full circle back to the need to see more people in less time. This economically based health care delivery system has mandated

change in the traditional approaches, which exists today (Spitz and Spitz 1999).

While many variables impact the capacity of the APN, there is one standard that is used nationally to guide practice. Reference to these standards of care can be found in the Psychiatric Mental Health Nursing: Scope and Standards of Practice, which is published by the American Nurses Association (ANA 2000). These standards consist of assessment of the patient, diagnosis, identification of patient outcomes, planning, implementation, and evaluation, all of which are equally important. The assessment process is highly scrutinised to avoid making an improper diagnosis and thus potentially employing inappropriate interventions. According to the ANA Psychiatric Mental Health Nursing: Scope and Standards of Practice (2000), the advanced practice nurse's role is expanded on by offering psychotherapy, prescribing medications and providing consultation, as directed by state statutes or regulations.

Another document available to guide the clinician in assessing health issues and implementing interventions is Healthy People 2010 (USA Department of Health and Human Services 2000). This manuscript proposes and projects planning efforts in a systematic approach toward public health. It predicts the overall health of a nation by using health indicators chosen for their capacity to motivate action, the accessibility of statistics to evaluate progress, and their significance as community fitness concerns. Two health indicators addressed in Healthy People 2010 can be applied by the APN when performing group therapy and they are: substance abuse and mental health. The USA Health People 2010 (2000) proposes two goals that the APN can use to conduct therapy and these are: to reduce the proportion of persons engaging in binge drinking of alcoholic beverages (pp.26-11) and to increase the proportion of adults with depression who receive treatment (pp.18-19).

The USA President's New Freedom Commission on Mental Health can also be employed to direct the path of alcohol abuse group therapy. This national

document reinforces the notion that mental health issues must be transformed and the APN is positioned to assist with this revision in the health care system. The number one goal of the New Freedom Commission is that: *Americans understand that mental health is essential to overall health* (USA President's New Freedom Commission 2002 p.7). The final report of the President's New Freedom Commission on Mental Health suggests that: "care must focus on increasing consumers' ability to successfully cope with life's challenges; on facilitating recovery; and on building resilience, not just managing symptoms" (2002 p.5). Research has shown that group therapy is effective in achieving this goal.

Additionally, the USA report of the Surgeon General on mental health (1999) can be used by the APN in assessing mental health issues that pose a problem and subsequently providing appropriate care to those in need. The Surgeon General Report is the product of a relationship between two USA Federal agencies, the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institutes of Health (NIH). SAMHSA was primarily responsible for organising the progress of the report. Eight chapters are devoted to the development and appropriate treatment of mental illness. This report states that: "Substance abuse is a major co-occurring problem for adults with mental disorders" (USA Surgeon General Report 1999). It further states that: "Evidence supports combined treatment, although there are substantial gaps between what research recommends and what typically is available in communities" (USA Surgeon General Report 1999).

LITERATURE REVIEW

While many people have indicated an interest in the group therapy process and have studied it extensively, it would seem negligent not to mention two of the most influential pioneers of their time. Hildegard Peplau, a passionate psychiatric nurse, and Irvin Yalom, a psychiatrist, are well known for their contributions to group therapy. When examining Peplau's *interpersonal theory of nursing* (1991) and Yalom's *group therapy and therapeutic factors* (1995), much similarity is noted. Peplau was the first to identify and 'name' the technique of interpersonal relating and this appears to be a springboard for therapeutic techniques. Peplau used the works of Sullivan and his interpersonal theory in addition to Freud's psychodynamic theory. As a result, she developed her theory of *interpersonal relations in nursing* (1991). The high correlation between her theory and that of psychotherapist Yalom is easily understood. According to Belcher and Fish (1995 p.59), "Peplau identifies needs, frustration, conflict and anxiety as important concepts in nursing situations", all of which have to be addressed for growth to occur. Yalom lists twelve therapeutic factors through which a patient moves during therapy, and they are: "instillation of hope, universality, imparting information, altruism, the corrective recpapitulation of the primary family group, development of socialising techniques, imitative behavior, interpersonal learning, group cohesiveness, catharsis, and existential factors" (Yalom 1995 p.1).

Just as Peplau and Yalom have expanded models for psychotherapy, Dr. Madeline Naegle, a present-day leader in substance abuse research, has teamed with faculty members from New York University (NYU) to develop a model nursing curriculum on substance abuse education (NYU 2003 pp.20-21). Her model has led to the further development of a program designed to build skills in substance related disorders research and education, which appear to extend Peplau's vision of nurses' abilities, not only to provide care to specific populations of patients, but to recognise these problems early on and to educate accordingly. Furthermore, the problem of alcohol abuse is not solely the patient's crisis, but a family dynamic. Group therapy can address the family dynamics in a cost efficient and efficacious manner.

Therapy and nursing have much in common. Both require more than technical skill to be proficient. Helping patients achieve their highest level of wellness involves the art of listening. They require

the art of listening and observing. Hildegard Peplau knew this to be true. When a patient and a nurse worked together, the outcome was that of increased knowledge and maturity for both. In her book: *Interpersonal relations in nursing: a conceptual framework of reference for psychodynamic nursing* (1991), Peplau defined the phases of the interpersonal process.

As described by Belcher and Fish (1995), Peplau proposed that "nursing is therapeutic because it is a healing art, assisting an individual who is sick or in need of health care" (p.50). Nursing becomes an "interpersonal process because it involves interaction between two or more individuals with a common goal" (p.50). Mutual respect of patient and nurse is the incentive for the therapeutic process. This is achieved through the learning and growing resultant from the interaction. Attaining this goal is met through steps that follow an orderly progression. Through the relationship, "the nurse can choose how she or he practices nursing by using different skill, and technical abilities, and by assuming various roles" (Belcher and Fish p.50). Similarly, the theoretical framework of psychotherapy in organised group therapy has been defined as a treatment method where patients meet with a qualified provider to achieve positive change.

Much research has been directed toward evaluating the most effective treatment strategies for alcoholism. Treatment strategies vacillate between two extremes: (1) sequencing treatment components according to the individuals stage of readiness and varying the approach as needed over time and (2) assigning treatment in a stepped care fashion in which treatment is initiated by using the least intense/costly treatments likely to address the patients needs with the option of moving to higher levels if treatment is unsuccessful (Mattson 2003 p.97). Despite the vagaries of treatments, focus is always placed on the overall goal of treatment. The treatment goal for alcoholism is all but universal; ensure retention of the patient in treatment, appropriate utilisation of resources, and overall effectiveness. When deciding treatment modalities, current argument leads one

to match individuals to treatment. Better drinking outcomes have been reported when the patient's emotional status was matched to the type of therapy provided. Patients who would be considered highly reactive have been shown to respond more favorably to Cognitive Behavioral Therapy interventions.

Project Matching Alcoholism Treatments to Client Heterogeniety (MATCH) postulated that subjects initially lower in motivation would do better in Motivational Enhancement Therapy compared to Cognitive Behavioral Therapy. This did not occur until the twelfth month of follow up. It demonstrated that readiness to change was found as a strong predictor of drinking status through one year after the end of treatment. Further studies of matching have shown that Type A alcoholics (late onset, few vulnerability markers, less psychiatric comorbitiy, fewer alcohol related problems and a good prognosis) had better outcomes in interactional groups. Whereas Type B alcoholics (early onset, rapid progression, familial vulnerability, co-morbid psychiatric disturbance, more severe alcohol related problems and a poor prognosis) benefited most from coping skills group. The majority of the outcome studies involving psychodynamic approaches for treating alcohol abuse and dependence were conducted in the 1960's and 1970's (DiClemente et al 2003 p.116). Researchers, Roth and Fonagy (1996) concluded in their review of these earlier studies that "dynamic psychotherapy demonstrated positive results compared to no treatment controls" (p.116). When psychodynamic approaches were compared to less intense modalities, it was found that psychodynamic therapy had a high cost and little or no evidence of unique effectiveness (p.116).

In view of the fact that the majority of patients presenting with substance abuse manifest signs of coexisting psychiatric disorders, it would appear the practical approach would be to treat both disorders simultaneously. This approach to treatment has been in debate, with both perspectives indicating validity. According to Daley et al (1987), whatever approach is used, the clinician must be aware of the dual disorders and adapt their customary interventions

to management and expand suitable plans to treat both disorders. One study done by Burtscheidt et al (2002) indicated higher alcohol abstinence rates on a two year follow up when behavioral therapy was used versus a non-specific supportive therapy. These results did however point out a reduced advantage from behavioral methods when severe personality disorders coexisted, thus amplifying Daley et al's (1987) suggestions that approaches to therapy should be customised to fit the patient.

Matano and Yalom (1991) adapted interactive group therapy for chemically dependant individuals: "The two primary foci of this treatment are the interpersonal relationships within the group in the here and now and conceptualising the group as a social microcosm" (p.117). The authors established five guidelines for the therapist wanting to integrate interactional group therapy for the treatment of chemical dependency: (1) priority of recovery, (2) identification as an alcoholic/addict, (3) careful modulation of anxiety levels, (4) a therapeutic approach to responsibility, and (5) modification of the group process to incorporate into therapy the language and belief of Alcoholics Anonymous (p.273).

The literature describes several types of cognitive therapies used in the treatment of chemical dependencies. Rational Emotive Therapy has been adapted for the treatment of alcoholism. During Rational Emotive Therapy, participants "examine beliefs about drinking and drinking-related expectancies, then challenges those beliefs, which assists the client to create realistic and healthy beliefs, as well as engage in more adaptive self-talk" (DiClemente et al 2003 p.119).

In 1976, Beck developed a cognitive therapy approach that is active and structured. This model "assumes that dysfunctional beliefs regarding the use of alcohol, the anticipated negative withdrawal syndrome and believing that craving is beyond the individual's control all contribute to maintaining the use. Therefore, treatment focuses on assessing situations in which the client is likely to drink and altering faulty beliefs about alcohol", (DiClemente et al p.119). Included in this type of cognitive treatment are behavioral components such as "activity scheduling, behavioral rehearsal, and relaxation training", (Beck et al 1993). Using cognitive approaches to reframe problematic beliefs and thoughts can play a vital role in sustaining a significant change in drinking behavior.

Whatever therapy is used, it is necessary to follow certain therapeutic guidelines. Spitz et al (1999) suggests that ten guidelines be used when working with substance abuse groups:

(1) Group goal is to help self and others to abstain from using,

(2) Be honest about past and present drug use,

(3) Commitment to refrain from using,

(4) Mandates regular attendance at the group,

(5) Do not attend group under the influence of alcohol,

(6) Initial relapses will be viewed and treated as learning experiences,

(7) Random urine testing is agreed on,

(8) No socialising outside of group sessions,

(9) Family member contact by the group leader is permitted, and

(10) Confidentiality is a must.

CONCLUSION

Barriers remain that keep advanced practice nurses from becoming effective group therapy leaders. Most of the barriers relate to the stereotyping of what nursing roles are and should be. All nurses are commonly thought of in their technical role practicing the skills of nursing. Nurses can easily be identified in the role of technician: checking blood pressure, changing dressings, dispensing medications. That is but one aspect of nursing; the art of nursing involves much more. It is the art of nursing where a nurse can demonstrate skills as an active resource for patients and families. "Psychiatric–mental health nursing is a specialised area of nursing practice employing a wide range of explanatory theories of,

and research on, human behavior as its science and purposeful use of self as its art" (ANA 2000 p.10). The advanced practice psychiatric nurse has the capability, through training, to provide among other functions, psychotherapy, including brief, long-term, individual and group. Peplau identified that for nursing when she developed her theory of interpersonal nursing (1952). The nurse is taught to actively listen to patients and through this listening develop a therapeutic process where learning and growing results. Developing goals and progressing in a step-wise fashion, is achieved within this relationship between nurse and patient.

Peplau is not the only reference for the advanced practice nurse acting as therapist. The Psychiatric Mental Health Nursing: Scope and Standards of Practice (ANA 2000) expands on this theory. Clinical practice activities include: "meeting patients' needs for a stable emotional and social support system" (ANA 2000 pp.12-13). Accordingly, the practitioner utilises "self as a therapeutic resource through one-to-one group interactions, in structured or informal sessions and in the physical as well as the psychosocial aspects of care" (p.13).

RECOMMENDATIONS

The advanced practice psychiatric nurse practitioner is positioned to enhance positive outcomes in patients' treatment. By virtue of their advanced training, the practitioner is able to provide comprehensive psychiatric services. Providing group therapy for a population that requires long-term interventions is a challenge in today's resource restricted medical environment. A skilled group therapist can provide services for a greater number of persons for a longer period of time in a cost effective manner. In the managed care environment of medical practices, group therapy meets the needs of a population with chronic problems.

REFERENCES

American Nurses Association (ANA). 2000. *Psychiatric mental health nursing: scope and standards of practice*. American Nurses Publishing: Washington, DC.

Beck, A.T., Wright, F.D., Newman, C.F. and Liese, B.S. 1993. *Cognitive therapy of stubstance abuse*. New York: Guilford.

Belcher, J.R. and Fish, L.J. 1995. Hildegard Peplau, in J.B. George (ed) *Nursing theories: the base for professional nursing practice* (4th ed) Connecticut: Appelton and Lange, pp.49-66.

Burtscheidt, W., Wolwer, W., Schwartz, R., Strarss, W. and Gaebel, W. 2002. Out-patient behaviour therapy in alcoholism: treatment outcome after two years. *Acta Psychiatrica Scandinavia*, 106(3):227-232.

Daley, D., Moss, H. and Campbell, F. 1987. *Dual disorders counseling clients with chemical dependency and mental illness.* Hazelton Educational Material: Minnesota.

DiClemente, C.C., Haug, N., Bellino, L. and Whyte, S. 2003. Psychotherapy and motivational enhancement, in M. Galanter (ed): *Recent developments in alcoholism*. New York: Kluwer Academic/Plenum Publishers pp.115-132.

New York University Nursing. 2003. *Addressing the national epidemic of substance related disorders*. A publication of the division of Nursing, the Steinhardt School of Education, New York University, pp.20-21. Available from: http://www.nyu.edu/nursing/magazine/nursing2003web.pdf (accessed 28 August 2007).

Matano, R.A. and Yalom, I.D. 1991. Approaches to chemical dependency: chemical dependency and interactive group therapy: a synthesis. *International Journal of Group Psychotherapy*, 41:269-293.

Mattson, M. 2003. *The search for a rational basis for treatment selection, in M. Galanter (ed), Recent developments in alcoholism*. New York: Kluwer Academic/Plenum Publishers pp.97-113.

Peplau, H.E. 1991. *Interpersonal relations in nursing: a conceptual framework of reference for psychodynamic nursing*. New York: Springer Publishing Co Inc.

Peplau, H.E. 1952. *Interpersonal relations in nursing*. New Ork: GP Putnam and Sons.

Roth, A. and Fonagy, P. 1996. Alcohol dependency and abuse, in A. Roth and P. Fonagy (eds), *What works for whom? A citical rview of pychotherapy research*. New York: Guilford Press, pp.216-233.

Spitz, H. and Spitz, S. 1999. *Group psychotherapy*. Brunner/Mazel: Philadelphia, Pennsylvania.

USA New Freedom Commission on Mental Health. 2003. *Achieving the promise: transforming mental health care in America*. Executive Summary. DHHS Pub.No. SMA-03-3832. Rockville: Maryland.

USA Department of Health and Human Services. 2000. *Healthy People 2010 (2nd ed): with understanding and improving health and objective for improving health (2 vols)*. Washington DC: USA Government Printing Office.

USA Department of Health and Human Services. 1999. *Mental health: a report of the Surgeon General*. Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institutes of Mental Health, Rockville: Maryland.

Yalom, I.D. 1995. *The theory and practice of group psychotherapy* (4th ed). New York: Basic Books.

Homophobia and heterosexism: implications for nursing and nursing practice

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ABSTRACT

Discrimination against lesbian, gay, bisexual and transgender people (LGBT) continues to exist in contemporary society and in institutions such as health care systems despite increasing social tolerance over the past three decades. This article explores the existence of discrimination against LGBT people among nurses and the implications this has for nursing and the quality of care delivered. The evidence suggests that LGBT patients and clients experience discrimination because of the homophobic and heterosexist attitudes of some nurses and other health professionals. Furthermore, some gay and lesbian health care workers also experience prejudice, discrimination and rejection from their colleagues. These experiences have detrimental effects for LGBT patients and staff. Strategies that may enhance the wellbeing of LGBT patients and staff are suggested.

INTRODUCTION

Societal attitudes to lesbian, gay, bisexual and transgender (LGBT) people have changed significantly over the last three decades. The catalyst for these changes includes the gay and lesbian rights movement in the 1970s, and a change in attitude toward homosexuality by elements of society and the medical profession. In 1973 the American Psychiatric Society removed homosexuality from the list of disorders in the Diagnostic and Statistical Manual of Mental Disorders (AMA 2002; Rose 1994), and in 1975 the American Psychological Association followed suit (Tate and Longo 2004 p.28). Homosexuality changed from being viewed as a mental illness, or psychiatric disorder, to a form of sexual orientation or expression. The events of the 1970s and subsequent legislative changes have resulted in LGBT people becoming more visible and demanding more equal rights. However despite this increasing acceptance of sexual diversity, discrimination against lesbian, gay, bisexual and transgender people continues to persist in contemporary societies.

This article explores the existence of homophobia and heterosexism among nurses and examines its potential impact on nursing practice. In addition to considering the impact of nurses' homophobia and heterosexism on patients and clients, the article considers the potential impact on LGBT colleagues. Since it may be expected that nurses' attitudes to homosexuality will mirror those of society at large, some attention is given to the prevailing societal views.

Although the term LGBT is used through out this article it is important to note that this group, like other groups of people, is diverse. Like heterosexual people, LGBT people are present in every facet of society. They vary in socio-economic status; age; type of employment; place of residence; culture and ethnic identity, and other social differences. However, despite these differences they do share similar experiences in relation to stigma, discrimination and rejection and on occasion violence (Meyer 2001).

Homophobia and heterosexism defined

Homophobia and heterosexism can be viewed as different aspects of the same phenomena: discrimination against lesbian, gay, bisexual and transgender people. Homophobia has been variously described as 'fear and hatred of gay and lesbian people and of their sexual desires and practices' (Leonard 2002 p.9) or as an irrational fear and dislike of lesbian, gay, bisexual and transgender people which may lead to hatred and result in physical or verbal abuse (Douglas Scott et al 2004 p.31).

Heterosexism refers to the belief that everyone is, or should be, heterosexual and that alternative sexualities are unhealthy, unnatural and are a threat to society (Leonard 2002 p.9). It may involve a conscious or unconscious exclusion of the acknowledgement of LGBT people by individuals, institutions or communities through prejudice, discrimination and harassment (Blanch Consulting 2003 p.6). The outcome of such structural heterosexism is that everyone is simply presumed to be heterosexual. This presumption, or expectation, has implications for LGBT people in many settings. For example, there are legal restrictions on recognition of their relationships; in the workplace there is denial of the work-related entitlements heterosexuals enjoy, and in health care settings, partners can be excluded from important decision making and denied access by hospitals with narrowly defined next-of- kin visiting rights (Dodds et al 2005 p.2).

In Australia, attitudinal change has lead to a number of legislative changes that partially protect the rights of people with different sexual orientation and other minorities. For example, anti-discrimination laws and anti-vilification laws provide limited protection against discrimination. Homosexuality has been decriminalised in all Australian states and occupational health and safety, sexual discrimination, and equal opportunity legislation obliges employers to provide safe workplace environments in relation to harassment and victimisation for all employees.

Nonetheless, despite these positive changes the Australian Human Rights and Equal Opportunity Commission notes that gay, lesbian and transgender

people face widespread discrimination because of their sexual orientation. Forms of discrimination include: lack of recognition of same-sex relationships; inconsistent laws regarding the age of consent; and refusal of health care (HREOC 2006). Furthermore, despite the fact that workplace discrimination on the basis of gender or sexuality is illegal, a recent survey found that 10.3 per cent of respondents reported being refused employment or promotion because of their sexuality (Pitts et al 2006 p.50). The recent national inquiry into discrimination against people in same-sex relationships in relation to financial and work-related entitlements and benefits, provides further evidence of the degree of discrimination lesbian and gay people experience in Australia (HREOC 2006). Such discrimination means LGBT people are denied access to the same range of entitlements and opportunities available to heterosexual people and this contributes to their sense of social exclusion and 'invisibility'.

Some governments in Australia have acknowledged the health inequalities and special needs of LGBT people. The Victorian Government for example, established Australia's first Ministerial Advisory Committee on Gay and Lesbian Health (MACGLH) in 2000 (McNair et al 2001). In late 2003 it established Gay and Lesbian Health Victoria (GLHV) to, among other things, train health care providers about lesbian, gay, bisexual, transgender and intersex (LGBTI) health and service needs; act as a research and information clearinghouse; and advise government on the development of LGBTI programs (GLHV 2006). In Tasmania the Department of Health and Human Services commissioned a health and wellbeing needs assessment project to determine the health and wellbeing needs of gay, lesbian, bisexual and transgender people, and their experiences interacting with the health and welfare service system (Blanch Consulting 2003).

The special needs of LGBT people have also been acknowledged by a number of health professional associations at an international and domestic level. In 2002 the Australian Medical Association (AMA) released a position statement titled: *Sexual Diversity*

and Gender Identity (AMA 2002). It recognises homophobia as a health issue and rejects the view that homosexuality itself poses some biological or genetic hazard for poorer health. Rather, it supports the argument that it is the discrimination that these groups experience that leads to poorer general health, reduced utilisation of health care services and decreased quality of health care services (Diamont et al 2000; Harrison 1998).

The responsibilities nurses have in ensuring the LGBT people and other minorities do not experience discrimination and prejudice is outlined in the Australian Code of Ethics for Nurses, and Code of Professional Conduct for Nurses (ANMC 2002, 2003). According to the Code of Ethics, 'nursing care for any individual or group should not be compromised because of ethnicity, culture, aboriginality, gender, spiritual values, sexuality, disability, age, economic, social or health status, or any other ground' (ANMC 2002 p.3). The Code of Professional Conduct for Nurses in Australia, a breach of which may constitute professional misconduct or unprofessional conduct, also draws attention to the need for nurses to promote and protect the interests of individuals irrespective of their 'gender, age, race, sexuality, lifestyle, or religious or cultural beliefs' (ANMC 2003 p.3). In addition, both Codes refer to the responsibilities nurses have in facilitating the participation of significant others in the care of a patient or client if that is their wish. It is instructive to note that the Code interprets significant other persons as 'persons of whatever relationship to the person receiving nursing care, who play an important role in the life of that individual' (ANMC 2003 p.1-2).

Although there is evidence to suggest that tolerance toward LGBT people has improved over the past three decades, discrimination against LGBT people continues to exist in contemporary society and institutions such as the health care system because of homophobia and heterosexism.

The effects of homophobia and heterosexism on patients and staff

Homophobia and heterosexism need not be conscious or intentional. They may affect policies

and attitudes indirectly and unintentionally by, for example, defining LGBT health issues as marginal, or less important, because they affect only a small majority of the population and are therefore, marginal to the concerns of the broader population. The influence of heterosexism in the structuring of health care delivery is evident in the images and messages that LGBT people experience when they engage with the health care system. For example, admission forms that require patients to identify themselves as married, divorced, widowed, in a de facto relationship, or single assume heterosexuality and may make lesbian and gay men feel invisible or unwelcome (Bowers et al 2006; Hitchcock and Wilson 1992). Forms that assume next of kin is either a spouse or a member of the patient or client's biological family are particularly worrying for LGBT people because this type of information determines who may be granted visiting rights; given access to important information about the health status of the patient; and be involved in the decision-making processes.

In the case of LGBT people, many are estranged from their biological families so families of their choice become very important to their wellbeing. The difficulties people of same-sex relationships face in having their relationships recognised and acknowledged is demonstrated by the need many feel to give power of attorney to their partners to ensure they are not excluded from participating in important decision making about the care of their partner.

In addition to these structural, or macro level, conditions, the individual's interactions with homophobic health care providers can reinforce their sense of isolation and alienation. Several studies have highlighted the existence of homophobia and heterosexism among health care professionals and the impact they have on the health of LGBT people, the ability of LGBT people to access health care, and the quality of care they receive.

International surveys of gay, lesbian and bisexual health consumers have reported between 31 per cent and 89 per cent of respondents experienced negative attitudes from health professionals because of their sexuality (Harrison 1998). Byron-Smith (1993) reported that 57 per cent of their sample of psychiatric nurses exhibited moderate homophobia and 20 per cent severe homophobic attitudes. A 1994 survey of American gay, lesbian and bisexual physicians reported 52 per cent of respondents had observed colleagues providing reduced care or denying care to patients because of sexual orientation and 88 per cent reported colleagues making disparaging remarks about LGB patients (Schatz and O'Hanlan 1994). Rose (1994) has also commented on the negative attitudes of members of the medical profession toward homosexuality.

In Australia, a 2000 study by the Victorian Gay and Lesbian Rights Lobby (VGLRL) reported that at least 23 per cent of GLBT people in Victoria have experienced discrimination when seeking health care (VGLRL 2000), and it appears that some GLBT people avoid disclosing their sexuality to health care providers for fear of discrimination or negative responses (McNair and Medland 2002; Pitts et al 2006).

The participants in the recent study by Bowers et al (2006) of health service delivery in a New South Wales metropolitan area health service also reported the negative impact of nursing and medical staff making derogatory comments about LGBT patients. In addition, this research reported instances of same-sex partners of patients or clients being ignored by staff, not being keep informed of their partner's condition and progress, and being excluded from participating in decision making about their partner's care.

These types of negative experiences may explain research that shows LGBT people under-utilise health services compared to the general population. Research has shown that LGBT people avoid the health care system because of past discriminatory experiences or expectations they will experience prejudice, or indifference, when they access mainstream health services (Simkin 1998; McNair and Medland 2002). Under-utilisation of health services has an obvious negative impact on the

health care needs of GLBT people and their access to preventative measures such as screening programs for a number of health conditions.

Of equal concern is the impact of homophobia and heterosexism on lesbian and gay health care workers. In environments that assume everyone is heterosexual, or should be, lesbian and gay staff and their relationships are unlikely to be given positive acknowledgement. They must contend with lack of recognition of their relationships and living arrangements and the threat and fear of discrimination, abuse and ridicule from their colleagues. Some health care workers have chosen not to disclose their sexuality for fear of discrimination, harassment and rejection from fellow workers (Bowers et al 2006). Some have believed declaring their sexuality may impact negatively on their career and job prospects (Rose 1994; Bowers et al 2006). Others have reported instances of verbal harassment and insults from colleagues (Burke and White 2001; Bowers et al 2006), and negative and derogatory remarks being made by nursing and medical colleagues in the presence of lesbian, gay and bisexual staff (Bowers et al 2006). It does not take much imagination to understand the negative effects of such comments and behaviour from colleagues. The negative effects of such comments and behaviour from colleagues include feeling unsafe and undervalued in the workplace.

Intervening in homophobia and heterosexism in health care delivery is a complex process. Indeed, the assumption of heterosexuality by nurses and other health care workers is frequently left uncorrected or unchallenged by homosexual staff and patients for fear of discrimination, rejection and ridicule (Bowers et al 2006). Staff often do not feel safe enough to advocate for the rights of LGBT patients, or openly confront prejudice, for fear of their behaviour being discredited by colleagues, being seen as simply 'stirring up trouble', or being interpreted as evidence of themselves being gay (Bowers et al 2006). The study by Bowers et al (2006) found discrimination in the form of homophobia largely goes unchallenged, while other forms based on racism or sexism are

dealt with more seriously by managers in the health care system.

All members of staff, including LGBT staff, have a right to be protected in the workplace from harassment, victimisation and bullying. Under occupational health and safety, sexual discrimination and equal opportunity legislation employers are obliged to have written policies and protocols that reflect the requirements of legislation in relation to these matters and processes to manage such behaviours (ANF 2004). Nonetheless, although anti-discrimination legislation and policies on bullying may temper overt discrimination and bullying there remains a challenge for health services to address institutionalised homophobia and heterosexism and understand its responsibility to respect the rights of all its clients, patients and employees.

Suggestions for enhancing the wellbeing of LGBT clients and staff

Legislative frameworks and professional codes of practice require that nurses and other health care workers consider their professional obligations to minority groups such as LGBT people. To be effective they need to be sensitive to cultural differences, embrace diversity, and provide an environment that is open and respectful of the needs of minority groups such as LGBT people. From the patients' or clients' perspective the strategies that may increase their comfort with health care professionals include: ensuring confidentiality of information provided; structuring questions and comments that do not assume heterosexuality; and with the agreement of the patient or client, allowing partners to be present during consultations and allowing them to participate in decision making (Bowers et al 2006; Simkin 1998). It is important that nurses and others use inclusive language on forms and when talking to patients to ensure they do not unintentionally present same-sex relationships as less significant than heterosexual ones.

A number of commentators have pointed to the need to educate nurses and other health care professionals about sexual orientation and homophobia (Bowers et al 2006; Douglas Scott et al 2004; Tate and

Longo 2004; Burke and White 2001; Rose 1994). This includes ongoing education through workshops and in-service seminars as a routine aspect of staff training. It is equally important that students receive education related to understanding and working with LGBT people. The challenge for educators is to recognise and acknowledge their own prejudices and biases as these can be communicated directly and indirectly to students. Nurse education programs need to promote autonomous and critical thinking, encourage students to challenge prejudice and intolerance, and to question conformity and similarity in thinking (Irwin 1992). Unquestioning acceptance of heterosexism as the norm is a significant barrier to equal access and quality of access to health care.

Bowers et al (2006) found that some staff believed that the attitudes and behaviours of more 'junior' staff are influenced by that of more 'senior' members of staff such as senior clinicians and managers. In their view it is most important that senior staff set the limits or tone of what behaviour is acceptable. However, it is not always an easy task for individuals to challenge prejudice and discriminatory behaviour in the workplace. As pointed out above, advocacy for LGBT patients may be discredited by colleagues, interpreted as 'trouble making,' or a sign that the advocate is also gay or lesbian (Bowers et al 2006). Health care institutions however, have a responsibility to ensure a safe environment for staff, patients and clients. Training and policies within health care services need to counter the culture of institutionalised homophobia that makes services inaccessible and inappropriate for LGBT people and workplaces unsafe for staff. Health care workers who tease, intimidate or threaten their homosexual or bisexual colleagues need to receive firm messages that such behaviour will not be tolerated. All staff need to understand that harassing a LGBT patient or client, or colleague, is a form of abuse.

CONCLUSION

It would appear from the evidence available that LGBT people have justified concerns regarding the quality and appropriateness of their care. This suggests that nurses and other health professionals may be shrinking away from their responsibility to this group of people. The Code of Ethics and Professional Conduct for Nurses requires nurses to recognise and respect the uniqueness of each patient or client, and provide high standards of care. Unfortunately, the evidence suggests this is not always the reality for LGBT people. LGBT patients want and deserve the same courtesy and attention that is given to heterosexual patients. Furthermore, nurses and other health professionals, who are themself homosexual, experience homophobia from both outside and within the professions. LGBT staff members also want and deserve a safe work environment. In other words, LGBT people do not want special rights: they want equal rights.

REFERENCES

Australian Medical Association (AMA). 2002. *Sexual diversity and gender identity*. AMA Position Statement. http://www.ama.com.au (accessed 12 May 2006).

Australian Nursing and Midwifery Council (ANMC). 2002. *Code of Ethics for Nurses in Australia*. Available from: http://www.anmc.org.au (accessed 10 May 2006).

Australian Nursing and Midwifery Council (ANMC). 2003. *Code of Professional Conduct for Nurses in Australia*. Available fom: http://www.anmc.org.au (accessed 10 May 2006).

Australian Nursing Federation (ANF). 2004. *Harassment, victimisation and bullying in the workplace*. ANF Policy. http://www.anf.org.au/anf_pdf/P_Harassment.pdf (accessed 10 May 2006).

Blanch Consulting. 2003. *Gay, lesbian, bisexual and transgender health and wellbeing needs assessment*. Department of Health and Human Services, Tasmania. Available from: http://www.dhhs.tas.gov.au/agency/pro/glbti/needs.php (accessed 15 May 2006).

Bowers, R., Plummer, D., McCann, P., McConaghy, C. and Irwin, L. 2006. *How we manage sexual and gender diversity in the public health system*. University of New England and Northern Sydney Central Coast: NSW Health.

Byron-Smith, G. 1993. Homophobia and attitudes toward gay men and lesbians by psychiatric nurses. *Archives of Psychiatric Nursing*, 7(6):377-384.

Burke, B.P. and White, J.C. 2001. Wellbeing of gay, lesbian and bisexual doctors. *British Medical Journal*, 322(7283):422-424.

Diamont, A.L., Wold, C., Spritzer, K. and Gelberg, L. 2000. Health behaviours, health status and access to and use of health care: a population-based study of lesbian, bisexual and heterosexual women. *Archives of Family Medicine*, 9(10):1043-1051.

Dodds, C., Keogh, P. and Hickson, F. 2005. *It makes me sick: heterosexism, homophobia and the health of gay men and bisexual men*. Sigma Research. Available from: http://www.sigmaresearch.org.uk/downloads/report05a.pdf (accessed 18 January 2006).

Douglas Scott, S., Pringle, A. and Lumsdaine, C. 2004. *Social exclusion- homophobia and health inequalities: a review. UK Gay Men's Health Network*. Available from: http://www.gaymenshealthnetwork.org.uk/gmhn_report.pdf (accessed 18 January 2006).

Gay and Lesbian Health Victoria. 2006. http://www.glhv.org.au/?q=training.

Harrison, A.E. 1998. Primary care of lesbian and gay patients: educating ourselves and our students. *Family Medicine*, 28(1):10-23.

Hitchcock, J.M. and Wilson, H.S. 1992. Personal risking lesbian self-disclosure of sexual orientation to professional health care providers. *Nursing Research*, 41(3):178-183.

Human Rights and Equal Opportunity Commission (HREOC) Australia. 2006. *Human rights for Australia's gays and lesbians*. Available from: http://www.hreoc.gov.au/human_rights/gay_lesbian/index.html (accessed 17 May 2006).

Human Rights and Equal Opportunity Commission (HREOC) Australia. 2006. *Same sex entitlement. National inquiry into discrimination against people in same-sex relationships: financial and work-related entitlements and benefits*. Discussion Paper. http://www.hreoc.gov.au/samesex/index.html (accessed 5 June 2006).

Irwin, R. 1992. Critical re-evaluation can overcome discrimination: providing equal standards of care for homosexual patients. *Professional Nurse*, 7(7):435-438.

Leonard, W. (ed). 2002. *What's the difference? health issues of major concern to gay, lesbian, bisexual, transgender and intersex (GLBTI) Victorians*. Ministerial Advisory Committee on Gay and Lesbian Health (MACGLH). Department of Human Services, Melbourne.

McNair, R. and Medland, N. 2002. Physical health issues for GLBTI Victorians, in W. Leonard (ed). 2002. *What's the difference? health issues of major concern to gay, lesbian, bisexual, transgender and intersex* (GLBTI) Victorians. Ministerial Advisory Committee on Gay and Lesbian Health (MACGLH). Department of Human Services, Melbourne.

McNair, R., Anderson, S. and Mitchell, A. 2001. Addressing health inequalities in Victorian lesbian, gay, bisexual and transgender communities. *Health Promotion Journal of Australia*, 11(1):32-38.

Meyer, I.H. 2001. Why lesbian, gay, bisexual, and transgender public health? *American Journal of Public Health*, 91(6):856-859.

Pitts, M., Smith, A., Mitchell, A. and Patel, S. 2006. *Private lives. a report on the health and wellbeing of GLBTI Australians*. Australian Research Centre in Sex, Health and Society. La Trobe University: Melbourne, Victoria, Australia.

Rose, L. 1994. Homophobia amongst doctors. *British Medical Journal*, 308(6928):586-587.

Schatz, B. and O'Hanlan, K. 1994. *Anti-gay discrimination in medicine*. San Francisco: American Association of Physicians for Human Rights.

Simkin, R. 1998. Not all patients are straight. *Canadian Medical Association Journal*, 159(4):370-375.

Tate, F.B. and Longo, D.A. 2004. Homophobia: a challenge for psychosocial nursing. *Journal of Psychological Nursing and Mental Health Services*, 42(8):26-33.

Victorian Gay and Lesbian Rights Lobby (VGLRL). 2000. *Enough is enough: a report on the discrimination and abuse experience by lesbians, gay men, bisexual and transgender people in Victoria*. Melbourne: Victorian Gay and Lesbian Rights Lobby (http://www.vglrl.org.au).

Importance of nutrition for elderly persons with pressure ulcers or a vulnerability for pressure ulcers: a systematic literature review

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ABSTRACT

The number of elderly people, usually with multiple illnesses, is increasing in our society. In the public debate, many scientists predict that this could lead to a considerable increase in pressure ulcers. Since elderly care was reorganised in Sweden in 1993, the situation for older people has changed. In many cases, access to geriatric expertise and nurses has been reduced and the mortality rate among patients with pressure ulcers is increasing. A literature review, including a content analysis of 16 peer-reviewed articles published between 1995 and 2005, was conducted. The aim was to describe the importance of nutrition in reducing the risk of pressure ulcers and to focus on nursing interventions. The result shows that the analysis can be summarised around four areas: nutrition, prevention, nursing and economic aspects, which elucidate the importance of ensuring that an elderly person's need for energy is met and that nutritional supplements are effective for this group of patients. Early nursing intervention and the use of questionnaires are also stressed as being important. The economic aspects of pressure ulcers are also discussed.

INTRODUCTION

Pressure ulcers occur in both hospital and community settings, most often in the care of elderly and/or immobile people, people with severe acute illness, and in those with neurological deficits. An increasing elderly population in parallel with a growing number of multiple illnesses is being seen in western society (National Board of Health and Welfare 2000a). Some researchers see a parallel risk of an increasing number of pressure ulcers, usually in connection with the growing number of hip fractures which are seen as having the greatest risk association with the development of pressure ulcers (Lindholm 2003).

The development of pressure ulcers is comparatively common. Kaltenhalter et al (2001) reported prevalence in the United Kingdom (UK) of between 4.4 per cent in a community unit and up to 37 per cent in palliative care. In addition to representing a major burden of sickness and having an immeasurable effect on quality of life, pressure ulcers are also costly for health care systems. In the UK, the cost of preventing and treating pressure ulcers in a 600-bed large general hospital was estimated to be between GBP 600,000 and GBP 3 million a year (Clark and Watts 1994).

Pressure ulcers or decubitus ulcers are areas of localised damage to the skin and underlying tissue which are caused by pressure or friction (Allman 1997). Reasons for pressure ulcers can include: a lack of appetite which leads to loss of weight, inactivity, paresis, dehydration and unconsciousness. A healthy person changes body position if pressure occurs. If this ability is impaired, the pressure leads to reduced blood flow, resulting in a lack of oxygen or nourishment to the skin and, if the exposure is sufficiently prolonged, an ulcer can occur.

The importance of a nourishing diet, usually in relation to the health risks of obesity, is often discussed. However among elderly people, it has generally been agreed that malnutrition rather than over-nutrition is a cause of concern (Potter et al 1988). Studies, including those conducted by Flodin et al (2000) and Kruizenga et al (2003) have revealed that an increase in the length of hospitalisation is associated with malnutrition. Malnutrition has important effects on recovery, it impacts on psychological and biochemical systems and has been associated with impaired immune response, impaired muscle and respiratory function, delayed wound healing and an overall increase in complications (Potter et al 1995; Sullivan et al 1990; Kelly et al 1984). A large demand for a supply of vitamins and tracers is seen during healing and in recent years, research focusing on the importance of nourishment for healing has been conducted (for example, Peake et al 1998). In these studies, it has been shown that elderly people sometimes suffer from malnutrition. Research on malnutrition among elderly in-patients, with a focus on the causes of and risk factors for the development of pressure ulcers, reveals that malnutrition is important in treatment, care and rehabilitation and an important indicator for the origins of pressure ulcers in patients aged between 65 and 85 years (Bansal et al 2005).

According to Unosson and Ek (1994), patients who received extra nutritional supplementation developed no pressure ulcers or, if they did, healed better than patients without extra nutritional supplements. These findings stress the importance of a balanced diet in order to maintain nutritional status and interventions as a means of preventing malnutrition and its complications. Ek (1996) also reported that extra nutritional supplements reduce elderly hospitalised patients' mortality frequency. In older patients with hip fractures, Houwing et al (2003) reported that patients who did not receive nutritional supplements ran a non-significant greater risk of developing pressure ulcers.

Studies show that when nurses have an acceptable knowledge and control of a patient's nutrition, these patients' pressure ulcers heal well (Mathaus-Vliegen 2004). However nutrition is a problem in practice, and according to Langer et al (2005), 25 per cent of elderly hospitalised patients suffer from malnutrition and an albumin value below the accepted reference value (3.5 g/l). It also appears that the elderly people generally eat little and the wrong kind of

food. Irrespective of whether elderly patients are hospitalised or live in group dwellings or in their own homes, malnutrition is a problem. The economic consequences of malnutrition are substantial. In 1992, the economic cost to the United Kingdom National Health Service of preventing malnutrition was estimated at GBP 266 million a year, mainly due to an increase in the length of bed occupancy and associated treatment costs (Lennard-Jones 1992).

Health care professionals attempt to reduce the occurrence of severe pressure ulcers by identifying people at high risk and using preventive strategies, such as pressure relieving equipment. It is important that initiatives such as nursing interventions are based on the best available evidence. This systematic literature review of pressure ulcer healing in elderly patients (65 years and older) focuses on elderly patients' nutritional status and the connection between nutritional status and the development of pressure ulcers. The available scientific evidence relating to pressure ulcers was reviewed with the aim of describing the importance of nutrition in reducing the risk of pressure ulcers and focusing on nursing interventions.

SEARCH METHODS

This review of the published research consisted of the following seven steps: specify the assessment problem; specify the inclusion criteria for studies; formulate a plan for literature search; conduct a literature search and retrieval; interpret the study evidence; and integrate the evidence and formulate a synthesis based upon evidence quality (SCTAHC 1993). A presentation of a structure for a focused research question is reported more extensively elsewhere (Stoltz et al 2004). Studies in English or the Nordic languages were only eligible for inclusion. Limitations regarding publication dates (January 1995 to December 2005) were actively applied during the database search.

The search strategy was designed to identify as much relevant published research as possible in the investigated research area using a systematic database search, focusing on sensitivity rather than specificity. The sources of literature were the international database Medline, Cinahl and the Cochrane Database of Systematic Reviews. The following search words were used and adapted according to the prerequisites of each specific database: pressure ulcers, nutrition, prevention, decubitus and nutritional requirements. This created a foundation from which studies of pressure ulcers could be manually screened and selected.

A pilot search was conducted in the Medline database, after which minor changes were made to the search words. The final search resulted in 158 references of which 62 were retrieved in full article form as they potentially met the criteria for inclusion. In the first classification, the authors read the titles of articles and abstracts to identify and choose relevant articles for a more in-depth examination. Research papers which were not included in the study were either of poor quality or did not meet the review demands regarding the aim and research questions. Potential research papers were noted for retrieval and given a preliminary 'study type' classification as randomised controlled trials, uncontrolled studies, case reports, qualitative research and surveys. Filtering identified only a small number of randomised controlled studies and all the studies that included outcome measures were therefore selected. In addition, qualitative studies were included.

The assessment process was performed in two phases. After an initial screening process designed to make sure that the studies met all the inclusion criteria and to determine whether or not the studies should be further assessed in phase 2, 41 articles were excluded and a total of 21 remained. The 21 articles were subjected to a more in-depth classification and quality assessment. This second phase used specific protocols for studies with qualitative and quantitative analyses of data (SCTAHC/SCN 1999). After the final review process, 17 articles remained and they collectively represent the result of the systematic literature review.

A three-point scale was used in order to reflect the quality of the studies that were included: high (I), medium (II) or low (III) quality. A medium (II) grade

was used if studies did not meet the criteria for high (I) or low (III) quality (see table 1) (SCTAHC 1999). All the studies making up the foundation of this systematic review were read repeatedly and the findings from these studies were summarised in tables (see table 2). The result of the review is a synthesis of these findings and quality assessments to arrive at conclusions.

Table 1: Classification and quality assessment of studies

Type of study	I = High	II = Medium	III = Low
RCT	Prospective, randomised, controlled trial. A study well planned and well carried out. Good description of material, method and intervention	–	Randomised, controlled trial with few participants or too many sub-studies Insufficiently described or high drop-out rate Lacking in description of results
P	Prospective study without randomisation. Well-defined research question, adequate number of participants, adequate statistical methods	–	Few participants, defective in accomplishment, uncertain statistical methods and measures
R	Adequate and well-defined number of consecutive participants, adequate statistical methods	–	Few participants, defective in accomplishment, uncertain statistical methods
Q	Study using qualitative analysis of data. Well-defined research question, relevant and well-described selection of participants and context. Method and analysis well described and well conducted. The results well described and comprehensive. Good communicability	–	Vaguely formulated research question, few or unsatisfactorily described participants Lacking in description of method, analysis or results

Table 2: Classification and quality of studies

Conclusion	Classification, quality of studies and references
Nutrition is an important factor for the origin of pressure ulcers and their avoidance	Ödlund Olin et al (DS, II) Dambach et al (CCT, II) Guenter et al (DS, II) Bourdel Marchasson et al (CCT, I) Horn et al (DS, I) Ödlund Olin et al (CCT, II) Sacks et al (DS II) Rypkema et al (CCT, I).
Early prevention and assessment of the patient's nutritional status are important	Anthony et al (DS, I) Lindgren et al (CCT I) Lindgren et al (DS, I) Fisher et al (DS, I) Horn et al (DS, I)
Nursing interventions and early care are important for the prognosis of people suffering from pressure ulcers	Bater-Jensen et al (DS, I) Thomas et al (DS, II) Horn et al (DS, I) Lindgren et al (DS, II) Lindgren et al (DS, I) Lindgren et al (CCT, I).
The importance of reduced suffering through nursing interventions, leading to positive economic effects for elderly people with pressure ulcers	Horn et al (DS, I) Sacks et al (DS, II) Fisher et al (DS, I)

RESULT

The result of this study consists of 16 peer-reviewed articles, each with a quantitative analysis of data. Nine of the studies originate from Europe (Sweden 5, France 2, United Kingdom 1, and the Netherlands 1) and seven from the USA. When reviewing the included studies, four subject areas were revealed. They were later labelled: *the need for nutrition, the need for prevention, the need for nursing care and economic aspects*. In the quality assessment, eight studies were classified as high and eight as medium. None was assessed as being of low scientific quality. A summary of the included studies is given in table 2.

The need for nutrition
Studies within this area report on the importance of nutrition among elderly patients with pressure ulcers and the importance of nutrition to prevent the progression of pressure ulcers. This is based on the findings from eight studies. The quality assessments were high (n=3) and medium (n=5).

In a group dwelling in Sweden, 89 per cent of elderly residents had nutrition problems or were judged as badly nourished. All the clients had experienced a significant loss of weight during the last year, leading to deterioration in daily life and deterioration in co-ordination ability and functional abilities (Ödlund-Olin et al 2005). Dambach et al (2005) and Guenter et al (2000) report that malnutrition correlates to pressure ulcers and that patients with pressure ulcers or who are vulnerable to pressure ulcers have a significantly lower energy intake than other patients. However through nutritional supplements, this risk can be reduced and the patient's nutritional status can then be preserved and the weight loss prevented (Horn et al 2004; Bourdel-Marchasson et al 2000). Nutritional supplementation leads to an increased capacity to manage daily activities and reduce the patient's sensitivity to infections (Ödlund-Olin et al 2003; Rypkema et al 2003; Sacks et al 2000).

The need for prevention
After the final review process, a total of five studies focusing on early prevention and the interventions that should be used remained. They formed this area of study. It is important to take account of the patient's nutritional status regarding factors such as weight and albumin. Four studies were evaluated as being of high scientific quality and one of medium quality.

Anthony et al (2000) report that the degree of dehydration and serum albumin are significant indicators for pressure ulcers in the patient group aged 64 years and older. The RAPS scale is a useful tool for identifying risk factors in elderly people and thereby predicting pressure ulcers (Lindgren et al 2002). Lindgren et al (2004) found that patients with pressure ulcers were significantly older, had a long institutional stay, had a lower weight, had lower diastolic pressure and had lower scores on the RAPS scale than those without pressure ulcers. Fisher et al (2004) state that important indicators for pressure ulcers are age, male gender, perception, humidity, mobility, nutrition and friction. Analogous to this, Horn et al (2002) report that intervention against incontinence, different kinds of pressure ulcer protection material, turning schedule, friction treatment and soft materials to sit on were the most commonly used pressure ulcer interventions.

The need for nursing care
Nursing care and the importance of early attention for patients with pressure ulcers have been reported in six studies, of which four were judged as being of high quality and two of medium quality.

Studies reveal that the most important nursing intervention to prevent pressure ulcers was pressure reducing mattresses and nursing documentation (Bates-Jensen et al 2003), together with turning schedules (Lindgren et al 2000). According to Horn et al (2004), factors that are important for the progress of pressure ulcers are: the severity of disease, catheters and connection to different kinds of monitoring equipment, previous pressure ulcers, loss of weight and eating difficulties due to problems in the mouth and pharynx. The most common treatment measure, according to Lindgren et al (2000), was different techniques for pressure relief and protective bandages. Horn et al (2004)

stress, that the number of ulcers decreases if nurses interact with nursing-home patients for at least 15 minutes and with enrolled nurses for two hours a day. Even if a hospital stay increases the risk of pressure ulcers (Lindgren et al 2004; Lindgren et al 2002), pressure ulcers do not in themselves imply a reduction in survival (Thomas et al 1996).

Economic aspects

Two articles highlight the importance of minimising both patient suffering and economic costs in connection with nutrition, prevention and nursing care. The scientific quality was evaluated as being high in one article and medium in the other.

Sacks et al (2000) state that different assessment tools are cost effective and easy to administer and can therefore be used as instruments in nursing homes. It is important to use the knowledge relating to pressure ulcers to identify patients that are vulnerable to such sores. By doing this, not only can a severe medical problem be minimised, but unnecessary suffering and economic costs can also be reduced (Fisher et al 2004).

DISCUSSION

This systematic literature review of published research results arrives at the conclusion that pressure ulcer healing for elderly patients (65 years and older) is strongly associated with the elderly patient's nutritional status and different kinds of preventive nursing intervention. This study also concludes that the successful mastering of pressure ulcers not only reduces suffering but also reduces the financial costs.

It is easy to think that older people's nutritional status has improved in recent decades. However this was found not to be the case when both Ödlund-Olin et al (2005) and Guenther et al (2000) reported a high frequency of malnutrition among elderly people in both Sweden and the USA, figures that correspond to Morley's (1986) reported findings of under-nutrition in the USA population above 60 years of age in the early 1970s. Ek et al (1991) have shown that women above 79 years of age are over-represented in the group contracting pressure ulcers. This gender difference could be the result of a skewed gender distribution in ages in the western world, with a higher mean age among females (National Board of Health and Welfare 2005).

This study also shows that people suffering from pressure ulcers are not only underfed but also have a higher age, reduced appetite and a reduced intake of liquid, need assistance with eating, have gastro-intestinal problems, have reduced mobility and have been exposed to stress during the last three months (Lindgren et al 2004; Fisher et al 2004; Horn et al 2004; Christensson et al 1999). The fact that patients who progress to pressure ulcers are significantly older than those who do not is frequently reported, for example in Bergström and Braden (1992), Christensson et al (1999), Guenter et al (2000), Lindgren et al (2000), Fisher et al (2004) and Horn et al (2004).

Morely (1986) calls this age skewing 'the anorexia of aging'; and by this he means that with increasing age, a change in the human body and organs leading to a natural loss of weight is seen. It is well known that increasing age results in a reduction in body mass index and a change in fat location on the body. It is important routinely to check older people's weight and nutritional status due to the fact that loss of weight increases the risk of pressure ulcers as this risk can be reduced through nutritional supplements (Dambach et al 2005; Guenter et al 2000). According to the National Board of Health and Welfare (2000b), nutrition should be regarded as synonymous with other medical treatment, especially for older people admitted to institutional care and therefore in need of investigation, diagnosis, treatment planning and documentation. It is not possible to give general energy recommendations for the older people, but in this systematic literature review, a caloric load of 25-50 calories per kg body weight for older people with pressure ulcers is recommended in three of the studies (Ödlund-Olin et al 2005; Dambach et al 2005; Mathus-Vliegen 2004).

The most common nursing interventions presented in the reviewed studies were different kinds of pressure-relieving measures, such as anti-decubitus

mattresses and individual turning schedules (Bates-Jensen et al 2003; Lindgren et al 2000; Ek 1987). Another frequently stressed nursing intervention is increased nurse-patient interaction (Horn et al 2004). In economic terms, pressure ulcer prevention is cost effective and nursing interactions indicate that increased nurse-patient interaction and careful documentation lead to early identification of patients who are vulnerable to bedsores.

Excluded studies

In overall terms, the most common reason studies were not included regardless of origin was that they did not comply with the aims of this review. Some studies were not of acceptable quality and their method description was either limited or non-existent. Consequently, they were excluded. Studies that commented on pressure ulcer healing in an editorial or a letter or in a problem-oriented fashion without any systematic methodology were not included.

Methodological considerations

The methodology that was chosen was a useful tool for identifying literature in a structured and systematic way. Within the resources made available to this study, this methodology helped to identify the best available scientific evidence. However the number of databases that were searched, as well as the search path that was chosen, may have been insufficient to identify all the relevant references. The reference lists from the included studies were not searched. In addition, some studies may lack an electronic database reference. In retrospect, the manual search and correspondence with senior researchers in the field could have been more extensive. A number of interesting studies were excluded because the age of the population which was limited to elderly individuals aged 65 and above.

While this systematic review was conducted in a rigorous manner, potential limitations must be acknowledged. The methodology and findings of the studies included in this review have been assessed by two independent reviewers (BH and LM), aided by review protocols. The protocols were not revised during the review process, which may be helpful in order to avoid introducing reviewer bias.

This objective of this review was to attempt to integrate the results of research conducted with qualitative and quantitative research data analysis. However this goal was not realised, as no articles with qualitative data analysis were found in this review. More work is needed, especially when it comes to empirical studies with qualitative approaches within this research field, as patient experience is closely associated with nursing care. More work is also needed when it comes to systematic reviews of qualitative research in order to guide future researchers.

REFERENCES

Allman, R.M. 1997. Pressure ulcer prevalence, incidence, risk factors and impact. *Clinical Geriatric Medicine*, 13(3):421-436.

Anthony, D., Reynolds, T. and Russel, L. 2000. An investigation into the use of serum albumin in pressure sore prevention. *Journal of Advanced Nursing*, 32(2):359-365.

Bansal, C., Scott, R., Stewart, D. and Crockerell, C.J. 2005. Decubitus ulcers: a review of the literature. *International Journal of the Dermatology*, 44(10):805-810.

Bates-Jensen, B.M., Cadogan, M., Osterweil, D., Levy-Stormsw, L., Jorge, J., Al-Samarri, N., Grbic, V. and Schnelle, J.F. 2003. The minimum data set pressure ulcer indicator: does it reflect differences in care processes related to pressure ulcer prevention and treatment in nursing homes? *Journal of American Geriatric Society*, 51(9):1203-1212.

Bergström, N. and Braden, B. 1992. A prospective study of pressure sore risk among institutionalized elderly. *Journal of American Geriatric Society*, 40(8):747-758.

Bourdel-Marchasson, I., Rondeau, V., Dequae-Merchadou, I., Barateau, M., Salles-Montaudon, N., Emeriau, J.P., Manciet, G. and Dartigues, J.F. 2000. A multi-center trial of effects of oral nutritional supplementation in critically ill older inpatients. *Nutrition*, 16(1):1-5.

Clark, M. and Watts, S. 1994. The incidence of pressure sores in a National Health Service Trust hospital during 1991. *Journal of Advanced Nursing*, 20(1):33-36.

Christensson, L., Unosson, M. and Ek, A.C. 1999. Malnutrition in elderly people newly admitted to a community resident home. *The Journal of Nutrition, Health and Aging*, 3(3):133-139.

Dambach, B., Salle, A., Marteau, C., Mouzet, J., Gahli, A., Faureau, A.M., Berrut, G. and Ritz, P. 2005. Energy requirements are not greater in elderly patients suffering from pressure ulcers. *Journal of American Geriatric Society*, 53(3):478-482.

Ek, A.C. 1996. Malnutrition among elderly patients: presence, consequences and measurements (in Swedish). *Vård: Utbildning, Utveckling, Forskning*, 4:2-13.

Ek, A.C. 1987. Prevention, treatment and healing of pressure sores in long-term care patients. *Scandinavian Journal of Caring Sciences*, 1(1):7-13.

Ek, A.C., Unosson, M., Larssoin, J., von Schenck, H. and Bjurulf, P. 1991. The development and healing of pressure sores related to the nutritional state. *Clinical Nutrition*, 10(5):245-250.

Fisher, A.R., Wells, G. and Harrison, M.B. 2004. Factors associated with pressure ulcers in adults in acute care hospitals. *Advanced Skin Wound Care*, 17(2):80-90.

Flodin, L., Svensson, S. and Cederholm, T. 2000. Body Mass Index as a predictor of 1 year mortality in geriatric patients. *Clinical Nutrition*, 19(2):121-125.

Guenter, P., Malyszek, R., Zimmaro Bliss, D., Steffe, T., O'Hara, D., La Van, F. and Monterio, D. 2000. Survey of nutritional status in newly hospitalized patients with stage III or stage IV pressure ulcers. *Advanced Skin Wound Care*, 13(4):164-168.

Horn, S.D., Bender, S.A., Ferguson, M.L., Smout, R.J., Bergstrom, N., Taler, G.A., Cook, A.S., Sharkey, S.S. and Coible, A. 2004. The national pressure ulcer long-term care study: pressure ulcer development in long-term care residents. *Journal of American Geriatric Society,* 52(3):359-367.

Horn, SD., Bender, SA., Bergstrom, N., Cook, AS., Ferguson, ML., Rimmasch, HL., Sharkey, SS., Smout, RJ., Taler, GA. and Voss, AC. 2002. Description of the national pressure ulcer long-term care study. *Journal of the American Geriatric Society*, 50(11):1816-1825.

Houwing, R.H., Rozendaal, M., Wouters-Wesseling, W., Beulens, J.W.J., Buskens, E. and Haalboom, J.R. 2003. A randomised, double-blind assessment of the effect of nutritional supplementation on the prevention of pressure ulcers in hip-fracture patients. *Clinical Nutrition*, 22(4):401-405.

Kaltenhalter, E., Whitfield, Walters, S.J., Akehurst, R.L. and Paisly, S. 2001. UK, USA and Canada: how do their pressure ulcer prevalence and incidence data compare? *Journal of Wound Care*, 10(1):530-535.

Kelly, S.M., Rossa, A., Field, S., Coughlin, M., Schizgal, H.M. and Macklem, P.T. 1984. Respiratory muscle strength and body composition in patients receiving total parenteral nutrition therapy. *American Review of Respiratory Disease*, 130(1):33-37.

Kruizenga, H.M., Wierdsma, N.J., Van Bokhorst, M.A.E., van der Schueren, D.E., Hollander, H.J., Jonkers-Schuitema, C.F., van der Heijden, E., Melis, G.C. and van Staveren, W.A. 2003. Screening of nutritional status in The Netherlands. *Clinical Nutrition*, 22(2):147-152.

Langer, G., Schloemer, G., Knerr, A., Knuss, O. and Behrens, J. 2005. Nutritional investigations for preventing and treating pressure ulcers. *The Cochrane Library*, 2:1-21.

Lennard-Jones, J.E. 1992. *A positive approach to nutrition as treatment*. King's Fund Centre:London.

Lindgren, M., Unosson, M., Fredriksson, M. and Ek, A.C. 2004. Immobility: a major risk factor for development of pressure ulcers among adult hospitalized patients: a prospective study. *Scandinavian Journal of Caring Sciences*, 18(1):57-64.

Lindgren, M., Unosson, M., Kratz, A.M. and Ek, A.C. 2002. A risk assessment scale for the prediction of pressure sore development: reliability and validity. *Journal of Advanced Nursing,* 38(2):190-199.

Lindgren, M., Unosson, M. and Ek, A.C. 2000. Pressure sore prevalence within a public health service area. *Journal of Nursing Practice*, 6(6):333-337.

Lindholm, C. 2003. *Sores* (in Swedish). Studentlitteratur: Lund.

Mathaus-Vliegen, E. 2004. Old age, malnutrition and pressure sores: an ill-fated alliance. *Journal of Gerontology*, 59(4):355-360.

Morely, J. 1986. Nutritional status of the elderly. *American Journal of Medicine*, 81(4):679-694.

National Board of Health and Welfare. 2005. *Public Health Report. Folkhälsorapporten* (in Swedish): Stockholm.

National Board of Health and Welfare. 2000a. *Current developments in care of the elderly in Sweden* (in Swedish). Stockholm.

National Board of Health and Welfare. 2000b. *Nutritional problem: prevention and treatment* (in Swedish). Report No. 11. Stockholm.

Ödlund-Olin, A., Koochek, A., Ljungqvist, O. and Cederholm, T. 2005. Nutritional status, well-being and functional ability in frail elderly service flat residents. *European Journal of Clinical Nutrition*, 59(2):263-270.

Ödlund-Olin, A., Armyr, I., Soop, M., Jerström, S., Classon, I., Cederholm, T., Ljunggren, G. and Ljungqvist, O. 2003. Energy-dense meals improve energy intake in elderly residents in a nursing home. *Clinical Nutrition*, 22(2):125-131.

Peake, H.J., Evans, S., Chambers, A., Riches, C. and Frost, C.G. 1998. Nutritional supplementation: how much do people drink? *Proceedings of the Nutrition Society,* 57:94.

Potter, J., Klipstein, K., Reilly, J.J. and Roberts, M. 1995. The nutritional status and clinical course of acute admissions to a geriatric unit. *Age and Ageing*, 24(2):131-136.

Potter, J.F., Schafer, D.F. and Bohi, R.L. 1988. In-hospital mortality as a function of body mass index: an age dependent variable. *Journal of Gerontology*, 43(3):59-63.

Rypkema, G., Adang, E., Naber, T., De Swart, B., Disselhorst, L., Golüke-Willemse, G. and Olde Rikkert, M. 2003. Cost-effectiveness of an interdisciplinary intervention in geriatric inpatients to prevent malnutrition. *Journal of Nutrition, Health and Aging*, 8(2):122-127.

Sacks, G.S., Dearman, K., Replogle, W.H., Cora, V.L., Meeks, M. and Canada, T. 2000. Use of subjective global assessment to identify nutrition-associated complications and death in geriatric long-term care facility residents. *Journal of the American College of Nutrition*, 19(5):570-577.

Swedish Council on Technology Assessment in Health Care (SCTAHC). 1993. *Literature Searching and Evidence Interpretations for Assessing Healthcare Practices*. SBU: Stockholm.

Swedish Council on Technology Assessment in Health Care and Swedish Council of Nursing (SCTAHC/SCN). 1999. *Caring for Persons with Schizophrenia*. Report No. 4. SBU: Stockholm.

Stoltz, P., Udén, G. and Willman, A. 2004. Support for family carers who care for an elderly person at home: a systematic literature review. *Scandinavian Journal of Caring Sciences,* 18(2):111-119.

Sullivan, D.H., Patch, G.A., Walls, R.C. and Lipschitz, D.A. 1990. Impact of nutritional status on morbidity and mortality in a select population of geriatric rehabilitation patients. *The American Journal of Clinical Nutrition*, 51(5):749-758.

Thomas, D.R., Goode, P.S., Tarquine, P.H. and Allman, R.M. 1996. Hospital: acquired pressure ulcers and risk of death. *Journal of American Geriatric Society,* 44(12):1435-1440.

Unosson, M. and Ek, A.C. 1994. *Nutrition an important question for science with focus on elderly care* (in Swedish). Vårdadministratören, 4:14-17.

Promoting quality care for older people in meal management: whose responsibility is it?

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KEY WORDS

ABSTRACT

Objective
To examine the role of registered nurses and allied health workers in meal management, assessment, safe environment and care planning for older people in residential aged care.

Primary Argument
Nurses and carers are often the first to observe and put into place strategies to prevent choking in residents with swallowing difficulties. Coroners' reports have raised issues with regard to the role of the registered nurse, resident autonomy and the effectiveness of speech pathologist assessments in avoiding incidents that compromise resident's health and well being.

Conclusions
In residential aged care the role of the registered nurse involves managing a complex environment. In the area of meal management, nurses are struggling to have their knowledge and expertise recognised. Nurses need to develop strategies to articulate and demonstrate their contribution to meal management in order to promote their knowledge and skills. Nurses must actively continue to develop their body of knowledge through research; otherwise 'expert' knowledge will be accessed from elsewhere. This paper will outline a number of areas for future development and research which focuses on the needs of older people and staff in this area.

INTRODUCTION

Two Coroners' reports (Vicker 2004; Chivell 1997) describe tragic circumstances where two elderly people in residential aged care died of choking. The reports may be read as asserting nurses working in residential aged care lack essential knowledge and skill in assessment and care planning for residents around meal management. A deficiency in research attesting to the knowledge and skill of nurses working in aged care has resulted in allied health professionals gaining attention and acknowledgement for their expertise rather than registered nurses, who are central to resident care needs. Both Coroners' reports appear to assume speech pathologists are accessible in residential aged care and that funding to access specialist services in residential aged care is available and adequate for the assessment and ongoing review of residents. The Coroners' reports infer speech pathologists are essential for the provision of safe and adequate nutrition and hydration needs of older people in residential aged care and assume meal management is straight forward. The Coroners found the registered nurses and carers to be negligent for not referring to or adhering to advice from allied health professionals. This implies that registered nurses do not have the expertise to assess the needs of residents with regard to diet and swallowing. (Vicker 2004; Chivell 1997).

CASE STUDY

A resident choked after ingesting a piece of toast obtained while she was wandering through the aged care facility in which she was a resident. The resident was one of 102 people in high care, 86% of whom were severely compromised by dementia. The resident had been some years in the facility and had an advanced Alzheimer type dementia with symptoms of hyperorality and agnosia. Dietary care planning had been a challenge involving her general practitioner, her husband and nursing staff. The resident's husband, also a high care resident in the same facility, was involved in many of the care needs of his wife and gave full assistance with her meals. The husband was extremely independent and nurses did not make it known to him that they monitored both (husband and wife) during meals. The couple had, on occasion, demonstrated symptoms that alerted staff to the fact that they experienced swallowing difficulties. Thickened fluids had been encouraged but the resident and her husband did not respond well and rejected drinks if thickener was added. The husband insisted on his wife having her well loved cup of tea without thickener and nurses requested he spoon feed her drinks.

The resident in question had not been seen by a speech pathologist. Her general practitioner was not in favour of a referral and agreed with flexible nursing interventions aimed at optimal hydration and dietary intake. The resident's behaviour vacillated between cooperative and uncooperative. Her fluctuating swallowing condition combined with the requests by her husband for certain foods and drinks on her behalf, proved challenging for nursing staff.

The residents' death was ruled as accidental by the Coroner with no further action required. The Coroner advised he was satisfied the nursing interventions were appropriate.

DISCUSSION

Had the findings of the 1997 and 2004 coroners' inquests been applied to this case the fluctuating swallowing condition of this resident would have required an unrealistic level of review and intervention by a speech pathologist. Access to a speech pathologist is difficult in residential aged care and delays of up to three months before an appointment can be organised is not uncommon. A swallowing assessment would also have been difficult due to the resident's cognitive abilities, uncooperative behaviour and her husband's expectations. Farrell and O'Neill (1999) state the scope and utility of screening procedures is restricted when a person is debilitated.

It is not uncommon in aged care for care staff to report residents experiencing a choking episode and for

residents to have episodes of swallowing difficulties. Physical conditions in this age group fluctuate and swallowing abilities vary. Farrell and O'Neill (1999) argue that difficulty with swallowing, oropharyngeal dysphagia (OPD), is common in a variety of illnesses and identify those people with chronic obstructive pulmonary disease, substantial weight loss, or recurrent unexplained pneumonias as being likely to have swallowing difficulties. Residents with dementia are at even greater risk and if prescribed neuroleptic medication, the risk is considered even higher (Wada et al 2001).

Five cranial nerves and twenty-six muscles involving the mouth, throat, and oesophagus are needed in a synchronised effort to achieve swallowing and clear food, fluids and saliva from the mouth and throat. Age related degenerative changes are noted in the oral, pharyngeal and oesophageal phases of swallowing however it is not known how much these changes increase the risk of swallowing disorders. Sitoh et al (2000) state that changes in physiology give rise to delayed swallowing which has the potential for aspiration of substances into the airway.

Swallowed food or liquid takes seconds to pass through the mouth and throat. If a food or liquid gets into the airway, the substance can easily be coughed up and redirected to the oesophagus. The trachea and oesophagus share the same space at the level of the throat or pharynx, therefore breathing and eating cannot occur simultaneously. During swallowing the airway closes securely. This process includes: closure of the soft palate; closure of the epiglottis over the airway; elevation of the larynx; and closure of the vocal chords. When the airway is sealed, food or liquid passes into the oesophagus and it is safe to take a breath. Aspiration into the airway will occur if poor timing or positioning of any of the muscles involved with swallowing is exhibited. If food or liquid enters the larynx and drops below the vocal cords it will cause coughing, regurgitation through the mouth or nose, a wet quality to the voice, choking and possible airway obstruction (Hughes 2003; Terrado et al 2001).

Terrado et al (2001) claim registered nurses are frequently the first health care workers to detect and assess swallowing difficulties through: assessments prior to and after admission; reports from the resident or the resident's family; information from the general practitioner; reports from concerned carers or from concerned persons after an external outing; and comments from volunteers or visitors. The idea that assessment and intervention is a specialist activity performed only by a speech pathologist is unrealistic in residential aged care. Intervention is not always easy and can be restricted by lack of co-operation from residents and their families to recognise a deficit and accept meal alternatives and monitoring.

An entry in one of the Coroners' Reports cites the following hospital case notes by a speech pathologist: 'dislikes slightly thickened fluids, however safer for patient'. The coroner agreed with the speech pathologist that the patient's dislike of thickened fluids should be overridden by the issue of safety (Chivell 1997). The view of the coroner and the speech pathologist's may be in conflict with aged care regulation that recognises resident's rights and resident and family participation in matters pertaining to care, care planning and services.

Nurses in aged care are often faced with dilemmas and have to reconcile resident's desires with safe outcomes, accreditation expectations, and conflicting regulatory requirements. The coroner's stance ignores the complexities of working with residents and families in aged care facilities. Unless nurses working in aged care clearly articulate their skills and demonstrate their knowledge base in this area of work, there is a danger of unnecessary and inappropriate interventions being applied. This may range from enteral feeding to chemical and physical restraint as means of ensuring safety.

It could be argued that aged care is not funded, nor professionally positioned, to cater for acute conditions and provide ongoing surveillance however registered nurses have knowledge and skills on contemporary care practices although they often work in isolation from other nurses and must rely

on the observations of unregulated workers. Aged care regulation requires that registered nurses be responsive and flexible and recognise and respect the right of the individual in care. This requirement is difficult to reconcile with the views expressed in the Coroners' reports which suggest the focus of care planning as primarily concentrated on the individual's pathology and functional ability not on resident choice and the complex dynamics of workforce issues

Mealtimes in residential aged care can be stressful. Manthorpe and Watson (2003) discuss the numerous difficulties nurses face in ensuring adequate dietary intake for older people. These can include: time constraints; inconsistent skill mix; high resident dependency; loss of appetite; loss of ability to recognise food; eating inappropriate substances; bolus eating; difficulty with transferring food from plate to mouth; and problems with chewing and swallowing. A diminished ability to taste and smell can also increase the risk of choking. As a consequence, older people can be difficult about their food resulting in constant requests for alternative foods and demands for immediate action from nurses.

Other demands on staff are the provision of assistance with feeding for residents with cognitive impairment and other limiting physical conditions. Manthorpe and Watson (2003) describe helping someone to eat as being an interactive activity which relies on a range of movements for which co-operation is assumed. However staff encounter resistive behaviours such as residents spitting food, turning their heads away and refusing to open their mouths (Manthorpe and Watson 2003). The complexity of the issues associated with meal management and the maintenance of satisfactory nutrition and hydration levels for elderly residents is a constant source of tension for nursing staff. Watson and Dreary (1994) argued this was an area urgently requiring further investigation and research.

Another area impacting on staff and their ability to care of residents is the need to meet aged care accreditation standards, which requires compliance in four areas: management systems; staffing and organisational development; health and personal care; and resident lifestyle, physical environment and safe systems (1997 http://www.accreditation.org.au/AccreditationStandards). These four standards are supported by forty four expected outcomes. Aged care facilities are required to meet all standards before accreditation is achieved (Gray 2001).

The coroner in Parsons vs. Ray Village Hostel (Vicker 2004 p.27) noted that staff in aged care work in an anxious environment, never sure of what constitutes minimum standards for compliance. The accreditation standards and expected outcomes lack specificity and direction for staff working in aged care and are subject to inconsistent interpretation by accreditation assessors. For example, the only direction given in expected outcome 2.10 'Nutrition and hydration' is that: *Residents receive adequate nutrition and hydration*. Other expected outcomes which impact on meal management are: 3.5 'Independence': *Residents are assisted to achieve maximum independence...* ; 3.9 'Choice and decision making': *Each resident (or his or her representative) participates in decisions about the services the resident receives, and is enabled to exercise choice and control over his or her lifestyle while not infringing on the rights of other people*; and 4.8 'Catering, cleaning and laundry services': *Hospitality services are provided in a way that enhances residents' quality of life*. Additionally, each standard requires compliance with regulation, continuous quality improvement and education and staff development.

Individual assessors conducting accreditation visits are reported in some instances to recognise dietician and speech pathologist input as being necessary in the assessment of residents, while rejecting meal management plans developed by nursing staff, deeming them inadequate. Where there is no evidence of input from allied health, organisations have failed standards despite there having been no recorded adverse affects to residents health and well-being. Management responses to negative rulings have varied. Some organisations have

viewed negative outcomes as devaluing nurses and have appealed decisions (Australian Government Department of Health and Ageing 2004 p.20-21). Others have directed resources into allied health consultations despite research being unavailable to evaluate whether this is an effective course of action.

Kelly et al (2005 p.14) argue if registered nurses working with the older people are not able 'to articulate what it is they do' then other health care professionals will assume responsibility and dictate care, while Pearson (1998 p.205) warns 'de-skilling and a move away from the central values of sensitive, intelligent nursing will be an outcome for organisations and policy makers in the future'.

CONCLUSION

Residents in aged care are some of the most complex and difficult individuals to evaluate and treat. Nurses are central to achieving positive outcomes, but need to articulate their role in a manner that instils confidence and gains recognition for a knowledge base sufficient to be acceptable to bureaucratic and regulatory authorities. Unless nurses rise to this challenge deskilling will occur and compartmentalising of aged care will be the result.

REFERENCES

Australian Government Department of Health and Ageing. 2004. *Decision to accredit Cadorna House*. Aged Care Standards and Accreditation Agency: http://www.accreditation.org.au/upload/documents/pdfs/tas/CadornaHouse03.pdf.

Australian Government Department of Health and Ageing. 1997. *Aged Care Accreditation Standards*. http://www.accreditation.org.au/AccreditationStandards.

Cheek, J., Ballantyne, A., Jones J., Roder-Allen G. and Kitto S. 2003. Ensuring excellence: an investigation of the issues that impact on the registered nurse providing residential care to older Australians. *International Journal of Nursing Practice*, 9(2):103-112.

Chivell, W. 1997. *Finding upon inquest into the death of Giuseppe Maiolo*. Inquiry No.15/97.

Farrell, Z. and O'Neill, D. 1999. Towards better screening and assessment of oropharyngeal swallow disorders in the general hospital. *The Lancet*, 354(9176):355.

Gray, L. 2001. *Two year review of aged care reforms*. Australian Government Department of Health and Aged Care: Canberra.

Hughes, T. 2003, Neurology of swallowing and oral feeding disorders: assessment and management. *Journal Neurology and Neurosurgery Psychiatry*, 74(suppl.III):iii48-iii52.

Kelly, T., Tolson, D., Schofield, I. and Booth, J. 2005. Describing gerontological nursing: an academic exercise or prerequisite for progress? *International Journal of Older People Nursing* in association with *Journal of Clinical Nursing,* 14(3a):13-23.

Manthorpe, J. and Watson, R. 2003. Poorly served? Eating and dementia. *Journal of Advanced Nursing*, 41(2):162-169.

Pearson, A. 1998. Editorial: Quantity or quality - developing a nursing workforce for the future. *International Journal of Nursing Practice*, 4(4):205.

Stack, S. 2003. *Beyond performance indicators: a case study in aged care.* Hawke Policy Institute.

Sitoh, Y., Lee, A., Phua, S., Lieu, P. and Chan, S. 2000. Bedside assessment of swallowing: a useful screening tool for dysphagia in an acute geriatric ward. *Singapore Medical Journal*, 41(8):376-381.

Terrado, M., Russell, C. and Bowman, J. 2001. Dysphagia: an overview. *Medsurg Nursing*, 10(5):233-248.

Vicker, E. 2004. *Finding upon inquest into the death of Grace Kathleen Parsons* (4088/03). Inquiry No.30/04: http://www.coronerscourt.wa.gov.au/I/inquest_findings.aspx?uid=9349-4756-3915-2531.

Wada, H., Nakajoh, K., Satoh-Nakagawa, T., Suzuki, T., Ohrui, T., Arai, H. and Sasaki, H. 2001. Risk factors of aspiration pneumonia in Alzheimer's disease patients. *Gerontology,* 47(5):271.

Watson, R. and Dreary, I. 1994. Measuring feeding difficulty in patients with dementia: multivariate analysis of feeding problems, nursing intervention and indicators of feeding difficulty. *Journal of Advanced Nursing*, 20(2):283-287.

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