

Oncology/haematology nurses: a study of job satisfaction, burnout, and intention to leave the specialty

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Abstract

The impact of the current nursing shortage on the health care system is receiving attention by both state and federal governments. This study, using a convenience sample of 243 oncology/haematology nurses working in 11 Queensland health care facilities, explored factors that influence the quality of nurses' working lives. Although nurses reported high levels of personal satisfaction and personal accomplishment, results indicated that nearly 40% of registered nurses (RNs) are dealing with workloads they perceive excessive, 48% are dissatisfied regarding pay, and professional support is an issue. Furthermore, emotional exhaustion is a very real concern: over 70% of the sample experienced moderate to high levels. Over 48% of the sample could not commit to remaining in the specialty for a further 12 months. Health care managers and governments should implement strategies that can increase nurses' job satisfaction and reduce burnout, thereby enhancing the retention of oncology/haematology nurses.

Significance of the study

The issue of nurse retention is gaining increasing exposure. Reports have noted shortages of oncology/haematology nurses in many Australian States (Australian Institute of Health and Welfare 2000). Little Australian research has considered the factors that affect the quality of nurses' working lives, which in turn may affect their decision to remain in a particular specialty or in nursing. It is critical to examine the factors that may influence nurses' job satisfaction, as current trends in the nursing workforce suggest that nursing shortages are causing, and will continue to cause significant problems in the delivery of patient care.

Literature review

Evidence suggests that staff morale and job satisfaction can affect turnover, productivity, continuity and quality of service (Seccombe & Smith 1996; Curran & Minnick 1989). Studies have reported that when workers change jobs there is a threat to access and quality of service (Orsolits 1984). Shortages of experienced nurses can bring about the closure of hospital beds, reduce the number of admissions, and delay treatments.

Furthermore, of significance to managers are the financial implications of recruitment and retention. The cost of processing the termination of a registered nurse (RN), providing alternative staffing, and recruiting and orientating new RNs can be potentially ruinous to a nursing budget calculated on stable staffing (Jones 1990; 1992).

The study of factors that may determine how nurses perceive their work has been extensive. Job satisfaction is a complex concept that continues to interest theorists and researchers as they attempt to explain its influence on employees' productivity, motivation, quality of working life and turnover. Nurses' job satisfaction may be

influenced by both personal and job characteristics (Davidson et al 1997; Decker 1997; Hinds et al 1998) and has been linked to nursing performance, quality of client care and cost savings (Davidson et al 1997). Job satisfaction is well documented in the literature as a key variable leading to turnover (Price & Mueller 1981; Weisman et al 1981; Curry et al 1985; Hinshaw et al 1987; Parasuraman 1989; Gauci Borda & Norman 1997; Collins et al 2000).

Another factor that may contribute to turnover is burnout. Burnout, described as a response to excessive and prolonged periods of stress (Cherniss 1980; Bailey 1985), may manifest as physical and emotional exhaustion, combined with feelings of reduced personal accomplishment and the development of negative self concept, negative job attitudes, and a loss of concern and feeling for clients (Maslach 1982).

Given the current critical shortage of oncology/haematology nurses, it is important to explore how nurses perceive their jobs, in an attempt to identify strategies to enhance the quality of their working lives and improve workplace retention. The aim of this study is to provide an overview of oncology/haematology nurses' levels of job satisfaction, burnout and intent to leave the specialty.

Method

Research design and study population

This study was a non-experimental, descriptive design, using a convenience sample of oncology and haematology nurses in Queensland. The target population for this study included all RNs working in 11 acute oncology/haematology facilities in Queensland. The sample was recruited from the major public and private oncology/haematology treatment centres and included RNs working in outpatient, ambulatory care and inpatient facilities.

Study instrument

The instrument was a self-administered questionnaire that comprised fixed choice questions assessing 5 main concepts: personal and workplace characteristics, job satisfaction, burnout and intent to leave. Three scales used in the study instrument are described below.

Job Satisfaction Scale

The Measure of Job Satisfaction (MJS) is a 43-item scale, developed by Traynor and Wade (1993). It comprises 7 subscales and uses a 5-point Likert scale (1 = Very Dissatisfied, 5 = Very Satisfied). Cronbach alpha internal consistency of the subscale coefficients ranked from 0.84 – 0.88. Test-retest reliability for the total scale was high, with an alpha coefficient of 0.86 – 0.93 after a two week interval (Traynor & Wade 1993). Cronbach alphas for this study ranged from 0.81 - 0.95.

Burnout Scale

The Maslach Burnout Inventory (MBI), developed by Maslach and Jackson (Maslach et al 1996), is a 22-item questionnaire. Cronbach alpha internal consistency was high for all subscales: 0.90 for the emotional exhaustion subscale, 0.79 for the depersonalisation subscale, and 0.71 for the personal accomplishment subscale (Maslach et al 1996). Test-retest reliability of the MBI was adequate, ranging from 0.60 to 0.82 after a two-week interval. Other longitudinal studies have found a high degree of consistency that does not diminish markedly from a period of three to eight months (Lee & Ashforth 1993; Leiter & Durup 1996). Cronbach alpha scores for the subscales in the present study ranged from 0.68 - 0.90.

Intent to Leave Scale

Intent to leave was assessed using a 5-item scale modified from items developed by other researchers. Items were used from studies by Price and Mueller (1981) and Cammann et al (1983), with wording changed to reflect the respondents' opinions about their likelihood of leaving the specialty of oncology/haematology. All items used a 5-point Likert scale. Cronbach alpha for this scale in the present study was 0.88.

Ethical Considerations

Prior to data collection, ethical clearance was sought from the Human Research Ethics Committee of the Queensland University of Technology. Following this, and before communication with the subjects, approval to contact staff members was obtained from the managers and directors of nursing or the ethics committees of the health care facilities. Packages including the questionnaire, the plain language statement and a stamped self-addressed envelope were distributed to all RNs in the 11 facilities and the questionnaires were returned directly to the researcher.

Results

Characteristics of the sample and the workplace

From a total population of 411 RNs who were employed in oncology/haematology units in the 11 target health facilities, 243 nurses replied, giving a 59.1% response rate. The majority of respondents were female (88.9%), with the largest group aged more than 45 years (20.6%). Results identify that the majority have tertiary qualifications, with over 53% having a bachelor's degree and a further 16% having postgraduate qualifications. Over 55% of the sample worked in the inpatient setting, 20.4% in an environment with combined ambulatory and inpatient care, and the remainder worked in ambulatory care. The data would suggest an experienced workforce, with over 48% of the sample having been employed in oncology/haematology for over 5 years and a further 30% having over 2 years experience in the specialty. Most of the respondents work full time, on a rotating 24-hour roster.

With regard to workplace characteristics, over 70% agreed that their physical work environment was pleasant. Nearly 73% agreed that regular staff meetings were held in their workplace, but only 36.5% agreed that formalised support sessions were held at work. More than 46% of the sample indicated that they did not receive regular feedback from their supervisor.

Job satisfaction

Satisfaction with workload

The distribution of results for the Satisfaction with Workload subscale is presented in Table 1. The highest percentage of dissatisfaction was registered for the item "overall staffing levels" with nearly 51% of the sample indicating that they were dissatisfied or very dissatisfied. Overall, responses suggest moderate to high levels of dissatisfaction with staffing levels and workloads.

Table 1: responses for measure of job satisfaction – workload scale ($\alpha = 0.87$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
The time available to get through my work	243	2.8	8.2	40.7	15.2	33.7	2.1
The amount of time spent on administration	241	2.7	7.9	39.4	25.7	26.1	0.8
My workload	243	3.1	4.9	28.4	18.1	45.3	3.3
Overall staffing levels	243	2.6	24.3	26.3	19.3	28.4	1.6
Time available to finish everything I have to do	243	2.8	5.8	41.6	18.9	31.3	2.5
Accomplishment at the end of the day	243	3.5	1.6	17.3	18.9	53.5	8.6
The hours I work	240	3.4	4.2	18.3	15.8	55.0	6.7
Time available for patient care	243	3.0	6.6	35.0	17.3	37.4	3.7

Satisfaction with prospects

Responses to the items in the Satisfaction with Prospects subscale are displayed in Table 2. While the majority of nurses recognised that job security and continued employment was high, the nurses in the sample indicated a large amount of uncertainty regarding their opportunities for career advancement. The item “my prospects for promotion” gained responses of “satisfied “ or “very satisfied” from over one third of the sample.

Table 2: responses for measure of job satisfaction - satisfaction with prospects scale ($\alpha = 0.81$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
My prospects for promotion	243	3.1	7.8	14.8	40.3	33.7	3.3
My prospects for continued employment	243	4.0	1.2	3.3	13.2	59.7	22.6
The amount of job security I have	243	3.9	1.2	4.5	14.0	58.4	21.8
The possibilities for a career in my field	242	3.6	1.2	9.9	24.8	54.1	9.9
The outlook for my professional group of nursing	242	3.7	1.7	5.8	25.2	53.7	13.6
How secure things look for me in the future of this organization	243	3.7	2.1	5.8	22.2	55.6	14.4

Satisfaction with pay

The responses to items in the Satisfaction with Pay subscale, which are displayed in Table 3, indicated that pay is a source of dissatisfaction for 48.3% of nurses in this sample. The item “payment for the hours I work” gave the highest response of dissatisfaction, showing 40% of the sample dissatisfied and a further 7.5% very dissatisfied. More than 45% of the nurses believed they are not fairly paid for what they contribute.

Table 3: responses for measure of job satisfaction - satisfaction with pay scale ($\alpha = 0.95$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
Payment for the hours I work	240	2.9	7.5	40.0	8.3	41.7	2.5
My salary / pay scale	242	2.9	7.9	38.0	12.8	39.3	2.1
The degree to which I am fairly paid for my contribution	243	2.9	4.9	41.2	18.1	33.3	2.5
The amount of pay I receive	242	2.9	9.1	35.5	14.5	38.8	2.1

Satisfaction with training

Responses to survey items assessing nurses' satisfaction with training are presented in Table 4. Fifty percent of the sample indicated dissatisfaction regarding ability to gain funding for courses and the item “time off for inservice training” received responses indicating greater than 45% of the sample were dissatisfied. However the item that asked respondents to rate satisfaction with the extent to which they had adequate training for what they did, received responses indicating more than 62% of the sample were satisfied, suggesting that respondents believe clinical training is being addressed to some extent.

Table 4: responses for measure of job satisfaction - satisfaction with training scale ($\alpha = 0.81$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
Being funded for courses	242	2.7	20.2	24.8	24.4	26.0	4.5
The opportunities I have to advance my career	242	3.3	5.8	16.9	24.8	43.4	9.1
The extent to which I have adequate training for what I do	243	3.5	2.5	19.3	15.6	52.3	10.3
Time off for inservice training	243	2.8	16.9	28.8	18.9	29.2	6.2
The opportunity to attend courses	243	3.0	11.5	24.3	22.2	36.2	5.8

Satisfaction with standards of care

All items in the satisfaction with Standard of Care subscale (Table 5) received ratings of “satisfied” and “very satisfied” from more than 60% of the sample. Generally respondents were satisfied with the standard of care, although there were some notable areas of dissatisfaction. Specifically, 26.8% indicated that they were dissatisfied with the quality of work with patients.

Table 5: responses for measure of job satisfaction - standard of care scale ($\alpha = 0.92$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
The quality of work with patients	243	3.7	2.1	24.7	12.8	49.4	11.1
The standard of care given to patients	242	3.6	2.9	15.7	9.9	56.6	14.9
The way patients are cared for	243	3.7	2.1	14.0	10.3	62.1	11.5
The standard of care that I am currently able to give	243	3.7	1.2	15.6	11.5	55.1	16.5
The general standard of care given in this unit	243	3.8	2.5	11.1	5.8	62.1	18.5
Patients are receiving the care they need	243	3.5	3.7	17.7	12.3	53.9	12.3

Satisfaction with professional support

Table 6 presents responses to items in the Satisfaction with Professional Support subscale. Over one third of the sample indicated their dissatisfaction with three of the items in this subscale. These were “the degree to which they felt part of a team”, “the people I talk to and work with”, and “the support available to me in my job”. However, for all 8 items in this subscale, almost 50% of the respondents indicated they were satisfied or very satisfied with professional support.

Table 6: responses for measure of job satisfaction - professional support scale ($\alpha = 0.89$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
The degree to which I feel part of a team	243	3.1	8.6	26.7	16.5	40.7	7.4
The opportunities I have to discuss my concerns	242	3.9	0.4	8.3	12.4	56.2	22.7
The amount of guidance and support I receive	242	3.7	3.3	13.2	13.6	53.7	16.1
The people I talk to and work with	241	3.2	8.7	24.9	12.9	42.3	11.2
The degree of respect and fair treatment I receive from my boss	242	3.5	5.0	13.2	18.2	51.7	12.0
The support available to me in my job	243	3.3	5.8	24.3	16.5	45.7	7.8
The overall quality of supervision	242	3.4	3.7	18.6	24.0	44.6	9.1
The contact I have with colleagues	242	3.8	1.2	9.1	10.3	62.0	17.4

Personal satisfaction

Responses to items in the Personal Satisfaction subscale, presented in Table 7, identified that oncology/haematology nurses have a varied and interesting job with all items rated as satisfying. The item "the amount of challenge in my job" registered over 83% satisfaction, and 74% of the sample were satisfied or very satisfied with "the amount of independent thought and action I can use in my work". These results suggest that oncology/haematology is a nursing specialty that is challenging and personally rewarding for many of the respondents.

Table 7: responses for measure of job satisfaction – personal satisfaction scale ($\alpha = 0.81$)

Variable	n	Mean	% of responses				
			Very dissatisfied	Dissatisfied	Uncertain	Satisfied	Very satisfied
The feeling of worthwhile accomplishment I get from my work	243	3.7	2.1	14.8	12.8	54.3	16.0
The amount of personal growth and development I get from my work	243	3.4	5.8	15.2	19.8	50.2	9.1
The extent to which my job is varied and interesting	243	3.8	1.2	9.1	11.5	60.9	17.3
The amount of independent thought and action I can exercise in my work	243	3.8	1.6	10.7	11.9	60.9	14.8
The extent to which I can use my skills	243	3.9	0.4	7.4	9.1	69.1	14.0
The amount of challenge in my job	242	4.0	0.8	6.2	9.9	62.4	20.7

Burnout

The MBI contains three subscales that assess the different dimensions of experienced burnout: emotional exhaustion (EE) which assesses feelings of being emotionally overextended by one's work, depersonalisation (DP) which measures the extent to which respondents experience unfeeling, and impersonal response to clients and personal accomplishment (PA) which assesses feelings of competence and successful achievement in one's work.

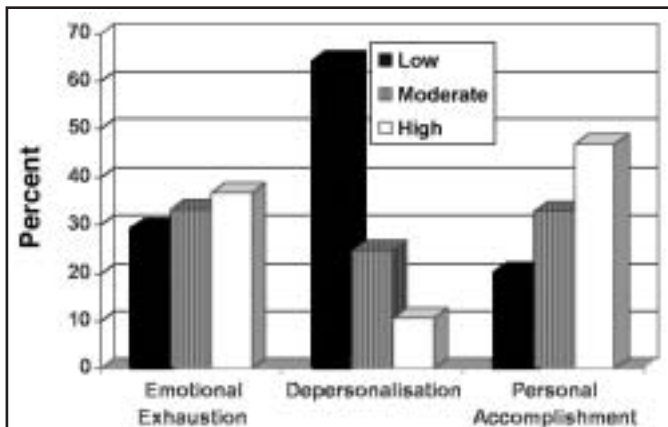
Responses to individual items in the EE scale are presented in Table 8. Over one third of this sample expressed that they felt emotionally drained from their work at least once a week. Thirty-five percent of nurses in the sample indicated that they felt “used up at the end of the workday”, at least once a week, and over 40% believed that they were working too hard on the job.

Table 8: responses for Maslach burnout inventory – emotional exhaustion scale ($\alpha = 0.90$)

Variable	n	Mean	% of responses						
			Never	Few times a year	Once a month	Few time a month	Once a week	Few Times a week	Every day
I feel emotionally drained from my work	241	3.2	0.4	17.4	17.8	25.3	12.4	22.0	4.6
I feel used up at the end of the workday	241	3.6	2.1	8.3	14.1	23.2	16.2	28.2	7.9
I feel fatigued when I get up in the morning and have to face another day	241	3.1	5.0	14.9	17.8	21.6	16.2	17.8	6.6
Working with people all day is really a strain for me	241	1.5	26.6	32.8	19.5	14.5	2.9	3.3	0.4
I feel burned out from my work	241	2.4	6.2	35.3	14.1	17.8	12.4	9.1	5.0
I feel frustrated by my job	241	3.1	4.6	18.7	14.5	20.7	14.5	20.7	6.2
I feel I'm working too hard on my job	241	3.2	5.4	15.8	14.9	23.7	11.2	19.1	10.0
Working with people directing puts too much stress on me	241	1.3	27.0	38.6	15.8	12.9	2.9	2.9	0
I feel like I'm at the end of my rope	239	1.6	26.4	35.6	14.2	10.5	5.4	6.3	1.7

Using the scoring system developed by Maslach, respondents are categorised on the basis of scale scores as having low, moderate or high levels of burnout for each of the three subscales. These results are presented in Figure 1. They suggest that nearly 37% of the sample were found to be experiencing high levels of EE, with a further 33% experiencing moderate levels. Furthermore, nearly 11% of the sample were experiencing high levels of depersonalisation. Many RNs expressed that they experienced PA from their work. Over 32% of the sample experienced moderate PA, and nearly 50% encountered high levels. However 20% of the sample were found to be experiencing low levels of PA.

Figure 1: levels of burnout



Intent to leave

The intent to leave scale comprised five items that asked the participant to indicate their likelihood of leaving the specialty in the next 12 months. Responses highlighted some areas for concern. For example, when asked what most clearly reflected their feelings about their future in oncology/haematology nursing over the next 12 months, only a little over 32% stated that they would definitely not leave. The responses for the items 1 - 4 (strongly disagree = 1, strongly agree = 5) are presented in table 9 and for item 5 (I definitely will not leave = 1, I definitely will leave = 5) are in table 10. This scale had a Cronbach alpha of 0.88.

Table 9: responses for items 1 to 4, intent to leave scale

Variable	n	Mean	% of responses				
			Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
I will look for a new job outside oncology/haematology in the near future	243	2.5	27.2	21.4	29.6	12.3	9.5
I will remain in oncology/haematology nursing for the next year	243	3.9	6.6	2.9	21.4	29.6	39.5
I often think about quitting this specialty	243	2.6	24.7	31.3	16.0	18.9	9.1
I would like to remain in the field of oncology/haematology nursing	243	3.8	4.1	4.1	30.5	30.0	31.3

Table 10: responses for item 5, intent to leave scale

n	Mean	% of responses				
		I definitely will not leave	I probably will not leave	Uncertain	I probably will leave	I definitely will leave
243	2.3	32.1	32.9	18.1	11.5	5.3

Summing the scores of the five items created a scale with a potential range from 5 (low intent to leave) to 25 (high intent to leave). (Recoding of some items was necessary.) Scores on this scale were divided into three equal categories: 5 - 11 = low intent to leave; 12 - 17 = uncertain about intent to leave; 18 - 25 = high intent to leave. The proportion of respondents in each of these categories is presented in Table 11. Although only 8.2% were considered as having a high intent to leave, a further 39.5% were categorised as uncertain of their intentions to remain in the specialty for the next 12 months.

Table 11: intent to leave scale

	n	Percent
High intent to leave	20	8.2
Uncertain - Intent to leave	96	39.5
Low intent to leave	127	52.3

Discussion

The findings of this study indicate that 8.2% of RNs in the sample could be categorised as having a high intention to leave oncology/haematology nursing in the near future. This might seem to be a manageable turnover rate, ensuring the provision of quality patient care and staff education by the remaining experienced workforce. However, a further 39.5% of the sample indicate they are uncertain about their immediate future in the specialty. It is not possible to identify how many of these will leave, but Paramanusam (1989) has suggested

that intent to leave was an indicator of turnover within a time frame of 6 to 12 months. The turnover of a large percentage of the workforce will have many ramifications, and the impact of a high turnover will be felt for some time in economic and social terms.

Areas of job (dis)satisfaction for oncology/haematology nurses

Dissatisfaction with workloads is a major concern for nurses in this sample. Nurses in the present study reported lower levels of satisfaction with workload than studies of Bone Marrow Transplant (BMT - a haematology subspecialty) RNs in the UK and the USA (Molassiotis & van den Akker 1995; Molassiotis & Haberman 1996). Indeed, labour force data from the Australian Institute of Health and Welfare indicate that nursing workloads are increasing. There is a continuing decline in the number of full time equivalent (FTE) nurses per 100,000 population in Australia, meaning that patient numbers per FTE nurse have been increasing (Australian Institute of Health and Welfare 2001). However, these increasing workloads to some extent remain a hidden problem, with reports that some nurses work unpaid overtime or through their meal breaks to complete their work. Hughes (1999) argues that, when there is more to do, nurses adapt their care and work harder and faster. Moreover, the problem of increasing workloads reflects a disturbing cycle that needs to be addressed, whereby the inability to adequately staff a work unit has the effect of burdening experienced staff with extra work (Healy & McKay 1999).

Secondly, this study suggests that while more than 60% of the sample indicated they were satisfied with job security, many nurses have high levels of uncertainty about career prospects. In fact, nurses in this study may view the Queensland nursing career structure as a barrier to professional opportunities, as it is flattened, and seen to afford few promotional opportunities. Currently, advancement in the present structure requires the turnover of a colleague, as this creates an unfilled Level 2 or 3 position. If nurses perceive there is limited formal recognition for their expertise in terms of career advancement, retention of experienced personnel in clinical positions may be affected.

Thirdly, about one half of the nurses in this study indicated some dissatisfaction with pay. This finding supports similar research from overseas, and suggests that pay issues may be becoming more important to nurses. For example, a study by Chan (1999) of Singaporean nurses reported that inadequate pay influenced the nurses who left their positions in a Singapore hospital. Nurses who continue to deal with heavy workloads and work unpaid overtime may perceive they are not receiving the financial remuneration they deserve, thus contributing to dissatisfaction and turnover.

Moreover, nurses' pay scales are normally tied to designation and years of experience. There is no financial recognition for exemplary work practices or for attaining scholarly achievements. In an environment that promotes quality care and best practice, frustration and confusion could be generated, as what is said to be valued is not financially rewarded.

Fourthly, while nurses in this study indicate moderate to high levels of professional support, this study has also highlighted some areas of professional support with which large numbers of nurses may not be satisfied. One particular area of concern is the "team" aspect of their work. Over one third of the sample indicate dissatisfaction with items such as "the degree to which I feel part of a team" and "the people I talk to and work with". These findings complement those of Yates et al. (2000) where difficulties with multidisciplinary teamwork imposed barriers to nurses' practice and Chan's (1999) study, where many nurses lamented the lack of good teamwork. A study of paediatric oncology nurses identified that support aspects were the most frequent causes of dissatisfaction (Hinds et al. 1998). Comments included "leaders being uninvolved" and "insensitivities of other members of the health care team". This Queensland study included an open-ended question, which asked the respondents who were thinking of leaving to indicate their reasons. "Conflict with the supervisor" and "conflict with other staff" were amongst the most frequently reported reasons for intending to leave the speciality.

Finally, the results of this study reveal that the level of satisfaction with training for the nurses in this sample was less than that for both the UK and the USA BMT nurses (Molassiotis & van den Akker 1995; Molassiotis & Haberman 1996). Although most nurses indicate that clinical training at the bedside is being addressed, they identify problems with being funded for courses and the lack of opportunity to attend educational programs. Difficulties in attending workplace-based education (inservice) raises some concerns, as oncology/haematology is a dynamic specialty consisting of medical and nursing research that incorporates the implementation of new and rapidly changing treatment regimens.

Burnout

This study has also found moderate to high levels of burnout that may be contributing to intention to leave the specialty. In particular, emotional exhaustion, which assesses feelings of being emotionally overextended and exhausted by one's work, was found to be a concern for the nurses in the sample, with over 70% of the sample experiencing moderate to high levels of emotional exhaustion. These results indicate that nurses in this study are experiencing similar levels of emotional exhaustion as a population of 204 German nurses (Bakker et al. 2000) and a population of 1104 medical and nursing personnel from the USA (Maslach et al. 1996). However, nurses in this sample report higher levels of emotional exhaustion than BMT nurses in other UK and US studies (Molassiotis & van den Akker 1995, Molassiotis & Haberman 1996).

While nurses in this study demonstrate high levels of emotional exhaustion, it is an interesting paradox that many appeared to obtain a great deal of personal accomplishment from their work. Personal accomplishment measures the nurse's evaluation of their achievements on the job, and how they perceive themselves (Maslach et al. 1996). The majority of RNs in this sample indicate that they gain moderate to high levels of personal accomplishment from working in this specialty. These results indicate that RNs in this sample are experiencing higher levels of personal accomplishment than their UK BMT colleagues, who reported that only 24.6% of their sample were experiencing high levels of personal accomplishment (Molassiotis & van den Akker 1995).

Implications for policy and organisational reforms

This study has highlighted that emotional exhaustion and issues related to dissatisfaction with workload, pay, promotional opportunity, and team aspects of the work environment are likely to be negatively impacting on the quality of working life for many nurses. The high levels of personal accomplishment and personal satisfaction reported by nurses in this study may possibly counter these negative aspects, and these positive influences may be the factors that keep experienced staff in the specialty. However, it is important that strategies for addressing the concerns reported by nurses in this study are given careful attention, as the implications for the health system of high turnover and worsening nurse shortages are potentially extremely serious.

The standard approach to assist nurses who are experiencing burnout is to improve their ability to manage their own stress (Byrne & Byrne 1992). For example, McElroy (1982) suggests that nurses need to have realistic expectations and consider their own feelings as important. Organisations may assist in this regard by offering their staff appropriate supports, such as counselling services, rotating them to a less stressful unit, or by providing access to information on stress management.

However, the results of this study suggest a range of broader health system and organisational issues that may be contributing to the moderate to high levels of burnout, and the notable proportion of respondents who have reported an intention to leave the specialty. In particular, concerns about workloads are likely to be a source of emotional exhaustion and a major cause of dissatisfaction for nurses. Determining what is an appropriate and sustainable workload for nurses will continue to be a challenge for clinicians and managers alike. Nevertheless, consistent with the major changes that have occurred to the provision of cancer care, any effective solution will need to include a review of the way in which nursing care is organised and delivered – that is, the predominant model of care for nurses in this study was patient allocation, utilising an all-RN staff. While this model has obvious advantages, it may be contributing to a culture of working in isolation from the other nursing staff, which results in minimal communication, and less than effective co-ordination and utilisation of resources or skills. Nurses in Chan's (1999) study related that heavy workloads seem more manageable when teamwork is involved. New models of care based on the development of supportive relationships may generate opportunities to share knowledge and expertise in a way that matches the skills mix of a staffing establishment, promote collegiality, and provide equity and balance in the workload.

Any review of models for providing nursing care must consider how nurses' competence and education is best utilised. In 1990, Jolma suggested that nurses do many non-nursing tasks and this continues. By providing clerical or other support staff to do non-nursing work, registered nurses' time may be used more appropriately. However, of equal importance is a reconsideration of areas where specialist registered nurse skills can be more effectively utilised as part of the interdisciplinary team to improve patient outcomes. The creation of new

advanced practice roles that formally recognise the expertise of an experienced and highly educated nursing workforce are urgently needed. The benefits for patients of a more effective utilisation of specialist nursing skills has been demonstrated in cancer care (National Breast Cancer Centre 2000), but the health system has generally been slow to acknowledge and implement the necessary changes to enable adoption of these specialist nursing roles. This is despite findings that demonstrate that such roles are not only beneficial to patient outcomes, but also cost-effective (National Breast Cancer Centre 2000).

Furthermore, this study's findings suggest that professional support and effective leadership at all levels of the organisation are areas that may be improved, in an effort to improve job satisfaction. For example, management may improve professional support by being more visible to the staff, thus ensuring immediate and close communication links between staff and management. Other writers have suggested that supervisors could be educated and upskilled to adopt a coaching leadership style and to learn how to provide instrumental and emotional support to nurses (Bakker et al. 2000). Such leadership behaviour may benefit the culture of the unit, creating a positive influence by using open communication and role modelling (Mc Neese-Smith 1997). This can set the scene for more supportive relationships amongst co-workers.

Unit managers should be acutely aware that most employees must know that the organisation values their contribution and cares for their wellbeing (Bishop 1998). Studies suggest that this type of consideration of staff, the acknowledgment of their input, and the provision of support for their development, all assist in staff retention (Taunton et al. 1997). Providing feedback to staff regarding their achievements and communicating positive comments from other staff and patients and their families gives positive reinforcement, while the failure to provide such feedback or criticism by managers creates dissatisfaction (McNeese-Smith 1997). Strategies that promote peer support may also be beneficial because they can foster a sense of unity, recognition and camaraderie amongst staff (Gullante and Levine 1990). They can also result in exploration of problem solving techniques, and the realisation that concerns are shared by others in the group (Thomas 1995).

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