BURNOUT IN NURSING

Kent Patrick, B.App.Sc. (Chiro), Grad.Dip.Psych.Studies, B.App.Sc.(Hons), PhD, School of Social Sciences and Humanities, Charles Sturt University , Wagga Wagga, New South Wales, Australia.

kpatrick@csu.edu.au

Judy F. Lavery, BA (Hons), PhD, School of Psychology, Deakin University, Waterfront Campus, Victoria, Australia.

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ABSTRACT

Objective:

Previous research has suggested that organisational change can contribute to stress-related outcomes for workers. Burnout, one such stress-related outcome, has been conceptualised as a multidimensional construct consisting of emotional exhaustion, depersonalisation and reduced personal accomplishment. Many health care organisations have undergone substantial organisational change over the last decade. The purpose of this study was to assess levels of burnout in nurses and to ascertain if there were individual or work characteristics that were associated with this syndrome.

Design:

Randomised survey methodology.

Setting:

Registered nurses (Division 1) in Victoria who were ANF members.

Subjects:

A random sample of 574 Victorian ANF nurse members.

Main outcome measures:

The assessment of levels of burnout in Victorian ANF nurse members and the identification of individual or work characteristics that may be associated with it.

Results:

Victorian ANF nurse members exhibited lower depersonalisation and higher personal accomplishment compared to medical and overall normative data. Increasing age and fewer working hours were associated with lower levels of emotional exhaustion and depersonalisation. Working overtime was positively associated with emotional exhaustion however further analyses demonstrated that those who worked overtime voluntarily did not differ from workers not working overtime. However feeling pressured/ expected to work overtime was positively associated with emotional exhaustion and depersonalisation.

Conclusion:

Victorian ANF nurse members were not experiencing high levels of burnout. However the study highlighted the need for health care management to recognise the importance of working reasonable hours and in particular, to understand the potential detrimental effect that having to work pressured or unexpected overtime has on staff.

INTRODUCTION

Workplace stress has been well documented as a substantial issue for workers and also for the organisations for whom they work (eg. Dewe et al 2000). Researchers have typically focused on a range of workplace constructs, important among which is burnout. Burnout is commonly conceptualised as a multidimensional syndrome consisting of three components: emotional exhaustion, depersonalisation, and reduced personal accomplishment (Maslach 1993). Emotional exhaustion arises 'as emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level' (Maslach et al 1996 p.4). Depersonalisation occurs when workers develop 'negative cynical attitudes and feelings about one's clients (Maslach et al 1996 p.4). Reduced personal accomplishment 'refers to the tendency to evaluate oneself negatively, particularly in regard to one's work with clients' (Maslach et al 1996 p.4). Previous research has associated both individual (eg. age: Huebner 1994; and gender: van Horn et al 1997) and work characteristics (eg. hours worked: Evers et al 2001) with levels of burnout.

There has been much research on burnout in nurses, presumably because of the intense nature of their contact with patients or clients (Demerouti et al 2000). A review of burnout found that 17% of published studies used nurses as their sample group (Schaufeli and Enzmann 1998). Individual studies conducted in different groups of nurses show variation in levels of burnout. For example, emotional exhaustion appears comparatively high in some studies (eg. Stordeur et al 2001), and low in others (eg. Kilfedder et al 2001).

Other studies have described lower depersonalisation (eg. Kilfedder et al 2001), or lower personal accomplishment in nurses (eg. Hayter 1999). The variations highlight the importance of investigating individual groups to determine their level of burnout because generalisations are not always possible due to differences in the job or workplace. This is particularly so if employees have been through difficult work changes such as organisational reform.

Prior to this study being conducted, hospitals in Australia had undergone substantial organisational change. Reform of hospital environments has previously been found to negatively impact on nurses in particular (Spence-Laschinger et al 2001) as it results in restructuring (Burke and Greenglass 2001; Sochalski et al 1999), mergers (Idel et al 2003), and inadequate workforce numbers (Aiken et al 2001). Similarly, restructuring has been found to be associated with emotional distress (Idel et al 2003), role stress (Swanson and Power 2001), and work-family conflict (Burke and Greenglass 2001).

Consequently, because the changes above have the potential to impact negatively on nurses' experiences they were perceived to be an ideal group for further study in relation to burnout. In addition to investigating individual characteristics (eg. age, years of experience) that are often investigated in burnout research, work characteristics that were relatively specific to the nursing profession at this time (eg. where nursing qualification was gained, that is, hospital training or university based education), and overtime, were also included in the study. It was thought prudent to investigate overtime in this sample since with the reported increased workloads and decreased staff numbers it was likely that overtime may be an issue for nurses.

The two major aims of the study were: (1) to compare levels of burnout in Victorian nurses against normative data, and (2) to assess the associations between selected individual and work characteristics and burnout.

METHOD

Procedure

Questionnaire packages were mailed to 2000 prospective participants who were registered nurses (Division 1) in Victoria by Australian Nursing Federation Victorian Branch staff (VIC ANF). Registered nurses have completed as a minimum a three-year nursing qualification resulting in being able to practice as a registered nurse. There were 574 usable questionnaires available, indicating a response rate of 29.3%.

Questionnaire

Burnout: Burnout was assessed using the Maslach Burnout Inventory (Maslach et al 1996). The inventory contains 22 items that assess the three components of burnout. Each item lists a work-related feeling and respondents indicate how often they felt that way about their job on a 7-point Likert scale. Emotional exhaustion was measured using nine items (eg. 'I feel like I'm at the end of my rope'); depersonalisation was measured using five items (eg. 'I feel I treat some patients as if they were impersonal objects'); and personal accomplishment was measured using eight items (eg. 'I feel I'm positively influencing other people's lives through my work'). Response options for the items were 0 'never' through to 6 'every day'. Responses are added to form a score for each subscale, thus giving each participant three scores for the three components of burnout.

Demographics: The demographics that were recorded included age, years worked as a nurse, and place of primary nursing qualification. Respondents were also asked questions about their main nursing job including the average number of hours worked in the past four weeks and whether they usually worked overtime and if so, whether it was voluntary or pressured/expected; paid or unpaid.

RESULTS

Table 1 displays the means, standard deviations, and ranges for respondent's age, years working as a nurse and hours worked per week. The sample is representative of the nursing profession in terms of age and number of hours worked per week because previous research has reported that the average age of registered nurses in Australia is 43.2 years and they work an average of 33.1 hours per week (AIHW 2006).

Table 1: Means and Standard Deviations for Age, Years Working as a Nurse, Years Working in Current Main Job, Hours Worked Per Week, and Number of Days Taken in Sick Leave in the Past Four Weeks

Variable	(n)	Mean	SD
Age (years)	570	43.94	9.61
Years working as a nurse	571	22.94	10.24
Hours worked per week	545	32.17	10.64

Table 2 displays the frequency distribution for gender, employment status, location of main nursing job, work setting, where primary nursing qualification was obtained and overtime characteristics.

Table 2: Frequency Distributions for Gender, Employment Status, Location of Main Nursing Job, Work Setting, Primary Nursing Qualification and Overtime Characteristics

Variable		Percentage (n)
Gender	Female	94.41 (541)
	Male	5.59 (32)
Employment Status	Full Time	34.27 (196)
	Permanent Part-time	57.34 (328)
	Casual	8.39 (48)
Location of Main Nursing Job	City	29.15 (165)
	Suburban	40.46 (229)
	Rural	30.39 (172)
Work Setting	Public	68.34 (382)
	Private	29.52 (165)
	Both public and private	2.15 (12)
Primary Nursing Qualification	Hospital	70.86 (406)
	College/University	23.21 (133)
	Both	5.93 (34)
Overtime Performed at Work	Yes	68.60 (391)
	No	31.40 (179)
Overtime Voluntary or Pressured Expected	Voluntary	45.90 (123)
	Pressured/Expected	54.10 (145)
Overtime Paid or Unpaid	Paid	38.38 (114)
	Unpaid	61.62 (183)

These figures are similar to those described in previous research (AIHW 2006) showing that 91.4% of registered nurses are female, 88.3% worked in a clinical nursing role; 62.4% in an acute hospital setting; with 66.2% employed in the public sector. Of the respondents to the study 78.2% worked in a clinical nursing role and 61.3% worked in an acute hospital setting.

COMPARATIVE RESULTS

Burnout in the sample of nurses was compared with the available normative data to investigate if any significant differences existed. Table 3 presents the mean and standard deviation for emotional exhaustion, depersonalisation, and personal accomplishment. Additionally, the table contains the normative data for medical workers and for the overall comparative sample obtained from the manual of the Maslach Burnout Inventory (Maslach et al 1996).

The scores for nurses were not significantly different on emotional exhaustion from both normative groups (medical sample: $t(570) = 0.73$, $p>0.05$; overall sample: $t(570) = 1.78$, $p>0.05$). However their scores were significantly different compared to both normative groups on depersonalisation (medical sample: $t(570) = 5.88$, $p<0.05$; overall sample: $t(570) = 13.07$, $p<0.05$) and personal accomplishment (medical sample: $t(570) = 3.58$, $p<0.05$; overall sample: $t(570) = 10.35$, $p<0.05$). Examination of the means indicated that the nurses experienced lower depersonalisation, and higher personal accomplishment (lower burnout overall) than both the normative sample groups.

Table 3: Means and Standard Deviations for Emotional Exhaustion, Depersonalisation, and Personal Accomplishment for ANF Members with Comparative Data from Normative Samples

Variables	(n)	Mean	SD	t-test
Emotional exhaustion ANF members	571	21.84	11.40	
Normative (medical)	1104	22.19	9.53	t(570) = 0.73 p>0.05
Overall normative sample	11067	20.99	10.75	t(570) = 1.78 p>0.05
Depersonalisation ANF members	571	5.81	5.34	
Normative (medical)	1104	7.12	5.22	t(570) = 5.88 p<0.05
Overall normative sample	11067	8.73	5.89	t(570) = 13.07 p<0.05
Personal accomplishment ANF members	571	37.56	6.88	
Normative (medical)	1104	36.53	7.34	t(570) = 3.58 p<0.05
Overall normative sample	11067	34.58	7.11	t(570) = 10.35 p<0.05

Individual and work characteristics and burnout

Pearson correlations were used to investigate the association between emotional exhaustion, depersonalisation, and personal accomplishment with individual and work characteristics (see table 4). Age was negatively associated with emotional exhaustion ($r = -0.08$, $p<0.05$) and depersonalisation ($r = -0.23$, $p<0.05$) indicating that as nurses' age increased their levels of these two burnout components decreased. Similarly, nurses' experience was negatively associated with depersonalisation ($r = -0.20$, $p<0.05$). The number of hours worked as a nurse was positively associated with emotional exhaustion ($r = 0.24$, $p<0.05$) and depersonalization ($r = 0.10$, $p<0.05$). Therefore as the number of work hours increased, nurses were more likely to experience emotional exhaustion and depersonalisation.

Table 4: Summary of Correlations between Age, Years of Work, Hours Worked per Week, Burnout (Emotional Exhaustion, Depersonalisation, and Personal Accomplishment), and Overtime

Variable	Emotional exhaustion EE	Depersonalisation DEP	Personal accomplishment PA
DEP	0.56**		
PA	-0.29**	-0.38**	
Age	-0.08**	-0.23**	0.04
Years	-0.07	-0.20**	0.04
Hours	0.24**	0.10*	0.08
Hosp/Uni	0.09*	0.16**	-0.01
O/T	0.21**	-0.01	0.08
O/T voluntary	0.41**	0.22**	-0.04
O/T paid	0.13*	-0.03	0.04

Note: * p<0.05, ** p<0.01

Key: EE = Emotional exhaustion; DEP = Depersonalisation; PA = Personal accomplishment; Years = years worked as a nurse; Hours = hours worked as a nurse per week; Hosp/Uni = where primary nursing qualification was gained (code: 0 = Hospital, 1 = University); O/T = Perform O/T while at work in main nursing job (code: 0 = No, 1 = Yes); O/T Voluntary = if the usual O/T was voluntary or pressured/expected (code: 0 = Voluntary, 1 = Pressured/Expected); O/T Paid = if the usual overtime was paid or unpaid (code: 0 = Paid, 1 = Unpaid).

Nurses who had gained their primary nursing qualification at a university or college tended to have higher emotional exhaustion ($r = 0.09$, $p<0.05$) and depersonalisation ($r = 0.16$, $p<0.05$) than hospital trained nurses. Working overtime was associated with higher emotional exhaustion ($r = 0.21$, $p<0.05$) which was partially explained because those nurses who worked overtime also worked more hours ($t(543) = 4.68$, $p<0.05$; overtime, $M = 33.55$ hours, $SD = 10.50$; no overtime, $M = 29.11$, $SD = 9.92$). A two-step hierarchical multiple regression using emotional exhaustion as the dependent variable was used to analyse whether the effect of working overtime occurred over and above the effect of hours worked. The regression was significant ($F(2,539) = 25.18$, $p<0.05$; adjusted $R2 = 0.08$) and demonstrated that working overtime was significantly associated with higher emotional exhaustion (, = 0.18, $p<0.05$) after allowing for hours of nursing work in step one of the hierarchical multiple regression. Being pressured or expected to work overtime (rather than voluntarily) was associated with higher emotional exhaustion ($r = 0.41$, $p<0.05$) and depersonalisation ($r = 0.22$, $p<0.05$); and working unpaid overtime was associated with higher emotional exhaustion ($r = 0.13$, $p<0.05$).

DISCUSSION

The first aim of the study was to compare the burnout levels of Victorian nurses to normative data in order to assess whether they differed significantly. The second aim of the study was to analyse the relationship between individual and work characteristics and burnout.

Comparative results

The current sample of nurses had similar levels of emotional exhaustion to the overall normative and medical figures (Maslach et al 1996). However respondents had significantly lower depersonalisation, and higher personal accomplishment than both the normative and medical samples. Additionally, 89.3% of respondents reported being satisfied (3.3% dissatisfied) with choosing nursing as a career choice. This result would seem an extremely positive one given that many of the respondents in the current study would have been exposed to some type of organisational change prior to the study being conducted. Perhaps, the lower rate of depersonalisation and higher personal accomplishment relates to the low average number of hours worked by the nurses, many of whom worked part-time, and as such are likely to lead more balanced lives than full-time employees. Unfortunately, the employment status of the normative samples is not available. Another possible reason for the differences is that the normative figures are based on mainly American data and therefore there is the possibility of a cultural effect.

Individual and work characteristics and burnout

Age and the number of years in practice were strongly positively associated ($r = 0.89$, $p<0.01$) indicating that older nurses are also likely to be more experienced. Both age and years working as a nurse were significantly negatively associated with depersonalisation while only age was significantly associated with emotional exhaustion. Despite the non-significant result between years of nursing and emotional exhaustion, the result was bordering significance and given the high correlation between age and years of working as a nurse, they will be considered together. This result indicated that older more experienced nurses experienced lower burnout on these two components; a finding that is consistent with previous research reporting that younger age is associated with higher levels of burnout (Schaufeli and Enzmann 1998).

The significant association between increasing age and lower levels of emotional exhaustion and depersonalisation has been consistently reported (Schaufeli and Enzmann 1998) however the strength of association with emotional exhaustion was weaker than previously reported in some studies (eg. Huebner 1994). The most likely explanation for higher levels of emotional exhaustion and depersonalisation in younger workers is that professional education can not always equip new graduates with the necessary skills to adequately deal with every problem situation in the workplace. Consequently, new graduates are continually experiencing stress as they struggle to find the necessary resources to deal with every new workplace challenge.

The gulf between skills provided by training and those required in reality is particularly evident with interpersonal skills (Pines and Aronson 1988) which are so important in order to effectively communicate with colleagues and clients. This uncertainty with some work characteristics is

likely to influence the level of stress experienced by nurses (Buunk and Schaufeli 1993). Less experienced nurses are likely to experience emotional exhaustion due to the emotional demands of new and unexpected work situations. Depersonalisation occurs in order to distance themselves from this emotionally draining work (Leiter 1993). Older nurses are likely to have previously experienced most work scenarios thereby understanding and managing problematic or ambiguous work situations with greater confidence and certainty. The influence of age/years of experience also partially explains why being a hospital trained nurse was significantly associated with lower emotional exhaustion and depersonalisation (compared to their university/college trained colleagues). While it would be tempting to suggest that university/college nursing training is an influencing factor in this result, it is more likely that because hospital nursing education was phased out over ten years ago hospital nurses were an older cohort than college/university trained nurses. A t-test confirmed this assumption ($t(533) = 21.01$, $p<0.05$) with hospital trained nurses being significantly older ($M = 47.70$, $SD = 7.24$; university/college, $M = 32.54$, $SD = 6.99$).

The number of hours worked per week as a nurse was significantly associated with emotional exhaustion and depersonalisation indicating that working longer hours was associated with higher levels of these two burnout components. Previous researchers have suggested that the number of hours worked as being weakly associated with emotional exhaustion (Evers et al 2001), findings that are consistent with those of the current study. The average number of hours worked for nurses in this study was 32.17 hours ($SD = 10.64$) indicating a lower average than a typical full-time week and may partially explain why the hours worked per week was a weak contributor to emotional exhaustion and depersonalisation. There is some indication that the association between the number of hours worked and adverse consequences is non-linear with only excessive work hours resulting in problems for workers (Sparks et al 1997).

Overall, working overtime was associated with higher levels of emotional exhaustion however the largest contributor to this effect were those workers who were pressured or expected to do the overtime. Examination of the means demonstrates that those workers who reported voluntarily working overtime ($M = 18.59$, $SD = 10.62$) did not experience higher emotional exhaustion than those workers who did not work any overtime ($M = 18.25$, $SD = 10.60$). This result suggests that it is not working overtime per se that is the problem, the issue is when nurses lose control over their work patterns and they feel pressured to add the extra work demands onto their existing load.

Conversely, for some nurses working overtime may be a positive experience because of extra income. When a worker has voluntarily worked overtime it would also be likely that their home/family commitments would be organised in advance, thereby removing potential home/work conflict. The reality of the hospital system often means that nurses will be unexpectedly required to work overtime occasionally (and may indeed want to do this). The current result highlights that there may be a cost for this extra work commitment if workers feel pressured to engage in overtime work that is unexplained and unexpected. This is not surprising given that much of this type of work may be unexpected and therefore very disruptive to home/family life. Attempting to juggle life and family commitments with regular work patterns is likely to be difficult enough, let alone when pressured or unexpected overtime is required to be worked, thus adding to the existing worker demands.

A limitation of the current study was the low response rate which potentially limits the generalisability of the findings. Furthermore, it is possible that this study was subject to what Schaufeli and Enzman (1998) call the 'healthy worker effect' (p.74) because more healthy workers are investigated because those who are extremely affected may not be working. This situation is likely to result in an underestimation of the incidence of burnout (Schaufeli and Enzmann 1998).

CONCLUSION

Positively, the current study demonstrates that Victorian nurses are not experiencing high levels of burnout and the vast majority was satisfied with their career choice. The study has also highlighted the importance of working manageable hours and that increasing years of nursing experience is likely to be beneficial for the worker. Additionally, working pressured or unexpected overtime was associated with increased levels of emotional exhaustion and depersonalisation indicating the need for management to be mindful of this situation occurring, particularly if foreshadowed nurse shortages continue.

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