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"The Pure Hard Slog That Nursing Is . . . ": A Qualitative Analysis of Nursing Work

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Key words

Nursing, workload, violence, remuneration, shift work

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Abstract

Purpose: To explore nurses' perceptions of the nature of nursing work as a factor that contributes to attrition from the profession.

Design: A nonpurposive sample of nurses from the Nurses and Midwives ecohort Study in Australia, New Zealand, and the United Kingdom provided electronic responses about reasons for leaving the profession. Data were then subjected to qualitative content analysis.

Findings: Nurses at the "coal face," that is, those who actually do the work of nursing, in real working conditions, express dissatisfaction in relation to hygiene factors relating to the nature of nursing work and attribute these to nurses leaving the profession: workload, shift work, violence, and financial remuneration.

Conclusions: Nurses' satisfaction with work and motivation to work are being sorely tested. There is manifest tension between the core concepts of nursing—compassion and care—and a system of work that actively precludes nurses from being able to exhibit these virtues and fails to reward them. Workload, shift work, violence, and financial remuneration are drivers of attrition and need to be addressed.

Clinical Relevance: Implications from this study are fourfold: determination of nursing workload, mitigating the impact of shift work, providing safe work environments, and adequate financial remuneration.

The global health workforce is in a state of chronic, critical, and worsening shortage and is a fundamental constraint to reaching health and development goals (World Health Organization, 2006). Nurses account for the largest proportion of this workforce, and recruitment in nursing is less problematic than retaining nurses in the workforce (Finlayson, Dixon, Meadows, & Blair, 2002). In Australia, the number of registered nurses (RNs) looking for work outside nursing has continued to increase (National Health Workforce Taskforce, 2009), representing 10.5% of the total pool of RNs in 2005. Attrition from nursing is a persistent, complex, and multifaceted problem, which if left unresolved will continue to negatively

impact health care (Chan, Tam, Lung, Wong, & Chau, 2012; World Health Organization, 2013).

Differing opinions persist as to the reasons why nurses leave the profession and what are the key drivers to improve retention (O'Brien-Pallas, Duffield, & Hayes, 2006). In 1959, Herzberg proposed that satisfaction in relation to work could be explained by motivating and hygiene factors. Motivating factors reflect the quality of the human experience at work and promote satisfaction and motivation to work. Hygiene factors relate to the environment and the working conditions and if adequately addressed prevents dissatisfaction and motivation to leave (Herzberg, 1959). This theory may provide

a useful framework to understand the nature of nursing work as a factor that influences workforce attrition (Zurn, Dolea, & Stilwell, 2005).

Methods

The Nurses and Midwives e-cohort Study (NMeS) was a longitudinal web-based study of 7,604 nurses and midwives conducted in three countries: Australia, New Zealand, and the United Kingdom. Participants registered online and completed baseline details from April 1, 2006, to March 30, 2008, then subsequently completed the NMeS surveys, which focused on workforce characteristics, work life balance, and health. Full details of the recruitment and survey methodology have been reported elsewhere (Huntington et al., 2009; Turner et al., 2009). The external validity of the cohort sample has also been demonstrated (Schluter, Turner, Huntington, Bain, & McClure, 2011).

Retention in the longitudinal study was supported in part by contact via an electronic newsletter, one edition of which invited participants to respond to three openended questions.

Data Collection

Participants were invited to email replies to three questions: (a) Why are nurses and midwives leaving the profession? (b) What can be done to retain clinical staff? (c) Why are students leaving nursing courses? The questions generated 60 pages of comments comprising statements from participants that varied in length from a few sentences to over 1,000 words, which provide the data for this article.

Data Analysis

Content analysis (CA) is a method of analyzing written, verbal, or visual communication (Elo & Kyngas, 2008), widely used over recent years in health research (Hsieh & Shannon, 2005). Content analysis has become established in nursing research as it is content sensitive, flexible, and "well suited to analysing data on multifaceted, sensitive phenomena characteristic of nursing" (Elo & Kyngas, 2008, p. 113). It is concerned with interpreting meanings, intentions, consequences, and context (Downe-Wambolt, 1992) by identifying patterns rather than counting words or phrases. Initial codes are developed and sorted into categories determined by interrelationships that in turn generate themes. An emphasis is placed on "interpreting the pattern" found in the codes or categories (Morgan, 1993) in order to gain new knowledge and insights (Nandy & Sarvela, 1997).

Details of the analytic method have been reported previously (Tuckett, Winters-Chang, & Bogossian, 2014). However, in brief, preliminary analysis and initial coding were undertaken by two of the authors, who subsequently and independently integrated "data chunks" under the developing codes for a subset of participants' statements. Data were reread under assigned codes, and through a process of clustering and merging the final core categories (themes and subthemes) were revealed and then logically arranged. Participants' data were then presented to form a narrative that represented the collective story grounded within the data set. Peer debriefing (Hsieh & Shannon, 2005) and support from previous relevant research around the final categories (Downe-Wamboldt, 1992) were used to establish credibility. Intercoder reliability was measured at the level of coding and pattern (or core category) identification in support of reproducibility. Intercoder agreement was established at 72%, consistent with the suggested minimum level of intercoder reliability of 75% (Nandy & Sarvela, 1997). The fittingness and auditability of the core categories was confirmed by author F.B.

Ethical Considerations

Ethical considerations in the NMeS have been reported Elsewhere(Huntington et al., 2009; Turner et al., 2009). Ethical approval was granted by the University of Queensland and Massey University.

Findings

In total, 66 nurses submitted email responses. The demographic and employment characteristics of the participants are typical of those of the larger study sample and the wider population of nurses. Most nurses were female (89%), with a mean age of 53.4 years. The majority were educated to the level of bachelor's degree or higher (53%), worked temporarily or permanently full time (58%), and were registered in Australia (71%), New Zealand (12%), or the United Kingdom (12%).

Eight themes emerged from the complete analysis of the responses to the trigger questions. Of these, four themes were hygiene factors, namely, workload, shift work, violence, and remuneration. The remaining four themes—support, undervalued, profession, and tradition—are intrinsic or motivating factors and will be reported elsewhere. Responses were attributed to the numerical code allocated to each respondent.

Workload

Workload and its consequences was a source of intense concern for nurses. Almost universally, they expressed that the workload has increased: "There have been a lot of changes in recent years, not all for the good, but I feel very strongly that the biggest problem is overwork" (respondent 48). Moreover, many expressed that the workload was excessive (respondents 15 and 41) and felt it was "getting busier and busier" (respondent 17) with "no let-up of [the] pressure" (respondent 49). Nurses had difficulty reconciling the expectations of the system, the patients, and themselves against a backdrop of increasing work demands, which were attributed to rising complexity, acuity, and patient numbers without consequent increases in staff or resources (respondents 2, 3, 17, 43, 49, and 61): "The contemporary clinical environment is also laden with complex cases that require not only medical or nursing interventions, but strong and significant mental health interventions . . . " (respondent 58). This complexity also affected nurses' physical work demands: "Nursing is a physical role with increasing requirements with the comorbid and overweight population we are providing care for . . . this is underestimated" (respondent 39). The number of patients requiring care (respondents 2 and 28) and inappropriate staff skills mix (respondents 13 and 35) were perceived as contributing to increased work demands:

[I]t was often me . . . and a newbie qualified nurse to look after 14 patients—anything up to 12 of those in theatre that day for major surgery . . . or trauma injuries. So that involved discharging up to 12 patients' drugs etcetra and sign off, admitting all those new patients then prepping them for theatres. (respondent 59)

Nurses felt that workload and changing work demands contributed to the chronic workforce shortage and exacerbated workload for those remaining in the workforce (respondent 59). Indeed, they saw no end to the cycle: "When nurses are overworked, the risks are getting higher, . . . as experienced staff leave for a 'better life' the new staff quite simple [sic] cannot cope and also move on" (respondent 17).

Work demands exceeded the clinical time available. As a result, nurses felt they had compromised the care of their patients in general and specifically with respect to vulnerable groups, including the frail elderly (respondent 59), pediatric patients (respondent 13), and those in residential care (respondent 61). Without exception, when nurses described the compromises they were forced to make as a result of lack of time, their distress was evident: "Lack of time to show real care for patients, this is heartbreaking and demoralising for those of us who really do care" (respondent 57). This moral distress (respondent 55) and inability to provide basic care resulted

in them exiting the profession: I found myself driving home in tears after many shifts because I simply could not give proper care to my patients and in many cases could not meet basic needs due to staffing levels and overwork. Simply we no longer felt able to give adequate care and ethically we felt unable to continue. (respondent 59)

Nurses also expressed frustration at not being able to provide the best possible care for their patients: "the pressure to work harder to ensure all paediatric patients receive a basic standard of care . . . forget trying to give them optimum care" (respondent 13) and ". . . there was less time to spend in helping patients to be comfortable and doing those extra things that can make a difference" (respondent 17). Put another way, "the 'must do's' far outweigh the 'want to do's'" (respondent 28).

Many felt that the system was to blame for the lack of time available to care for patients, as the focus was on ". . . getting as many people through the system as possible" (respondent 6). In addition to inappropriate skill mix (respondents 13, 44, and 61), other systemic, influencing factors included the way the practice is organized (respondent 44), inability to perform duties under the systems in place (respondent 59), lack of managerial support (respondents 41 and 43), the volume of paperwork or clerical work (respondents 2, 4, 18, 23, 30, and 57), the completion of which was tied to funding and staffing ratios (respondent 61), and being forced to take on other people's jobs (respondents 23 and 43). Nurses paint a picture of complex systemic issues for which they see no solution: "All they can do is keep the façade together so that the system is not failing for the shift they are on" (respondent 20).

However, it may be that public perceptions and patient expectations of nurses have been impacted by this perceived failure to care: "We are constantly criticised for poor care in the press" (respondent 48) while "... public expectations have grown and far outweigh the management support or resources" (respondent 43) nurses felt they received. Public expectations of the service nurses ought to provide were viewed as unrealistic in light of the patient:nurse ratios (respondent 2) and were perceived to have changed over time:

[W]hen I started as a student nurse, you felt the patients really appreciated whatever you did for them; these days it feels as though it is an expectation that you will be their servant . . . we look after people who are largely ungrateful. (respondent 6)

Almost without exception, when nurses describe their work they identify it as "hard." For example, nurses reflected that "work is hard and heavy" (respondent 53),

"the pure hard slog that nursing is" (respondent 48), and "I love nursing but it truly is an awful job. You work bloody hard" (respondent 13). Additionally, nurses identified that the work is physically and emotionally taxing, and resulted in physical injury such as chronic shoulder and back injury (respondent 1). Those who identified having been in the profession for a number of years spoke of being tired:

I am 47 and wondering if I can continue working as a nurse. I have given it my all and it has been very rewarding. But it has also been very tiring . . . I have reduced my hours and will retire early. (respondent 1)

Shift Work

Being tired is more than a function of the workload faced by nurses, it also reflects one of the inevitable characteristics of nursing work, namely, shift work, which they identified as influencing workforce retention and recruitment. Shift work is not typically evaluated favorably: "Shift work is the pits" (respondent 47) and "you work horrendous hours" (respondent 44).

Nurses perceived that it is always the junior members of the profession who get lumbered with the bad shifts (respondent 47). The burdens of shift work on the new nurse was perceived to influence them changing their working patterns: "[S]tudents go on to graduate but within 2 years are no longer working full-time in nursing . . . the issues are rates of pay and shift work" (respondent 55). Concurring, a rural and remote nurse reported she had opted out of the hospital system because of shift work that had ultimately reduced her to ". . . one of those cranky nurses!" (respondent 19).

Shift work was also perceived to have associated risks generally described as "effects on health" (respondent 15) and particularly felt by "us older nurses" where "... shift work becomes too hard physically and mentally after a while. This is why I got out of ward work" (respondent 4). In particular, "night duty plays havoc with your health in the long run" (respondent 12) and interferes with sleep or rest and mood:

As you get older it is more difficult . . . to work nights. Sleeping in the day is hard and is not the same quality as night-time sleep; you get cranky and upset over what would normally be a trivial matter." (respondent 12)

The nurses also evidence a strong relationship between shift work, family life, and leaving their workplace or, at best, altering their work patterns. While shift work works for some, often when nurses end up with a family, shift work no longer suits them. This means that nurses either reduce their shifts or quit altogether (respondents 2 and 6). Inflexible attitudes of managers toward nurses who have children (respondents 13 and 31) and the affordability or access to child care all contribute to the demise of the nursing workforce: "Family is number one. If you can't access affordable child care then shift work is impossible" (respondent 44) and "Child care is often a stumbling block for midwives and RNs who would like to return to practice. Shift work hours are notoriously difficult to organise families around" (respondent 65).

However, nurses offer some insight into ways to stem the exodus. The solution is in giving them "more say in the shifts or hours worked and things may improve" (respondent 64). Others agreed, suggesting "going back to having those people that wish, to ask for permanent night duty" (respondent 44), so allowing "for those who like or prefer it" to work nights (respondent 53). In addition, a generational response was forthcoming whereby older nurses worked with younger nurses "to see how the rostering might be improved" to accommodate each other's different needs, job expectations, and social priorities (respondent 44). A solution is also found with the "exemplary managers":

She enables us to balance our working lives with our family and social lives by allowing us to self-roster and everyone always gets the necessary time off to do so. She is always flexible to meet unexpected time off required and, as a result, staff are open with her and do not abuse her generosity. (respondent 21)

If solutions cannot be found to deal with rostering and shift work and the attendant consequences, the nursing workforce will continue to diminish. The nature of nursing work influences perceptions of workload, and by its very nature their work exposes nurses not only to shift work but to hazards not faced in other occupations: exposure to bacteria and viruses (respondent 66), body fluids (respondent 8), litigation (respondent 6), and the risk for violence or abuse (respondents 6, 18, 39, and 59).

Violence

Nurses provide a telling account of the type, characteristics, and consequences of violence they experience in the workplace. How this violence or abuse manifests is both sublime and at times graphic and entrenched. An alarming insight from respondents is that they perceive that the bullying that drives them away from the workplace is "endemic, institutionalised" (respondent 47) and "rewarded and part of the culture in many areas of nursing and health" (respondent 20). The bullying and

harassment as a cultural norm "... will never change because there is seemingly no will for that to actually happen ..."; rather, "... colleagues treat bullying and harassment as a spectator sport" (respondent 47).

Data suggest that nurses engage in bullying each other, experience bullying from others, and are also victims of physical and verbal abuse, sometimes with deleterious consequences. "Lateral violence" (respondent 21) and "horizontal violence" (respondent 56) were used to describe why nurses leave the profession. Whether lateral or "top-down" (respondent 41), bullying "by fellow nurses" (respondent 48) or "within the hospital system" (respondent 53) or without qualification (respondents 41 and 60) held some supremacy. Arguably, a well-worn adage, nurses pitted against nurses remains captured in the statement "... they eat their young and wonder why the young don't want to stick around" (respondents 13 and 46).

This violence extended beyond peer-to-peer to include psychological and emotional abuse from those in positions of assumed authority. A mature student recounted that daily RNs put students down. She saw many students in tears and provided a shoulder "far too many times . . ." (respondent 35). Consistent with the abuse being endemic, it comes as no surprise that others outside the profession were perpetrators, including medical staff: "Too many doctors in acute care are still nasty little shits" (respondent 8) and "You get treated like dirt by all and sundry within the hospital system" (respondent 39); "allied health, clerical, cleaning, medical staff all have a go" (respondents 47). The nature of abuse can be as subtle as the incivility of being ignored: "From day one when your preceptor won't speak to you, to this morning when my boss failed to introduce me to our new specialist" (respondent 47), to the intolerable "getting hit" (respondent 18). Graphically, physical abuse was experienced as: "I had fingers broken, a nose broken and my ribs broken by ... patients" (respondent 59).

Violence has other consequences. In matters related to the workplace and workforce, "[B]ullying and discrimination are too often seen to be a factor—and newer nurses are 'put off' when they witness this" (respondent 25). For others, because of the "... back biting in nursing and cliques ...," they are isolated (respondent 59) or "punished," as one clinical nurse specialist recounted of her daughter's experience:

"... part of her 'punishment' was to redo a transition programme ... with seven other recalcitrant, new nurses. It will not take too many more episodes ... to have these nurses find another job. My daughter already talks of not doing nursing forever" (respondent 11).

For another, her mental health suffers: "This week I am suffering dreadful withdrawal symptoms from going off the antidepressants that I have been taking for years due to the damage done by incessant workplace bullying in pretty much all its forms except physical violence" (respondent 24).

Financial Remuneration

Wages are a continued source of disquiet among nurses. Pay pushes people out. The pay is perceived to be low for the hard slog of nursing work, set against their qualifications and by comparison to other professional groups. There is better money to be made elsewhere and a perceived disparity within the profession itself. While the consensus is that the money is not good, not all nurses felt that pay negatively impacted workforce retention and overall stability. On the contrary, one respondent felt that "younger nurses . . . leaving . . . is not related to the pay" (respondent 23), and another related that "I don't think it is wage related; I am more than happy with what I get paid" (respondent 48).

Generally, however, money matters in terms of staying or going. The phrase "wage is pretty average . . ." (respondents 10 and 56) supports that a key driver for leaving the profession is perceived to be "poor wages and conditions" (respondent 61) where "pay and shift work" (respondents 42 and 55) described part of these conditions. Some equated the "lousy pay" with inadequate penalty rates for undertaking night duty (respondent 27), although earnings were highest "when they do shift work including night duty" (respondent 64).

Collectively, nurses wondered, "Why would any intelligent young person want to do a nursing degree and have to put up with being the lowest paid professional around?" (respondent 64). Particularly, "when a profession doesn't respect itself well enough to financially reward its individual's appropriately, then how can we expect to attract others?" (respondent 66).

Furthermore, a feeling exists that while it is bad that the pay is lousy (respondent 27), there is also a perceived pay disparity within the profession. The nurse unit manager feels "unappreciated... constantly overlooked in the pay rates" and laments, "... good nurses do NOT want to run a ward as they can't afford to lose the income" (respondent 46). A colleague points out that "it's often the not-for-profit, aged and community care sectors that remain poorly paid and feeling undervalued. We have a two tiered system" (respondent 1).

Compounding the perceived poor pay and the wage disparity is the group's observation that where career development and advancement is contingent on further study, it is just "too hard to earn money to live on as well as study" (respondent 42) and there is a poor monetary return once you do achieve the degree as noted by respondents 1, 42, and 65. Indeed the additional work of study was not overtly rewarded: "I have a master's and yet I am paid the same as someone who has a general nursing certificate and similar experience levels" (respondent 66).

Nurses recognize there are better opportunities elsewhere. Firstly, work can be found that offers "... equal or better pay for jobs that do not involve body-work or emotional involvement" (respondent 11) and "... earning more money doing easier work! And cleaner work! No body fluids" (respondent 8). Secondly, workers moved to better financially rewarded occupations (respondent 32). Respondents recognized that other work offered opportunities like "... bonuses etc. like in the corporate world" (respondent 42) and better money, for example in the IT and finance sector per respondents 4 and 5. Compared to "an electrician or a plumber, the pay rates are not the same, for the amount of study and training we do . . . " (respondent 18), an opinion underscored by a nurse and mother's reality: "Wage increases are minimal. With the similar amount of training as my three sons, they now all earn \$20,000 to \$30,000 more than me and yet I have been working as a nurse for 28 years" (respondent 42). Indeed, there were options for better conditions and a simpler working life elsewhere. "A colleague of mine recently left nursing for a main line ticket inspector's job, better paid, paid overtime and reasonable hours without the constant hassle of filling forms and arranging cover" (respondent 51).

While this research indicates there is more to staying in or leaving the nursing workforce than just remuneration, a tentative proposition about pay recommends: "Bring in . . . a really decent pay increase . . . and things *may* improve [italics added]" (respondent 64) and "Higher pay *may* attract more RNs [italics added]" (respondent 11). Something about pay needs to be done, and something needs to be done if the nursing profession is to attract and retain a workforce to take health care into the future; otherwise nurses will walk:

I know of a young newly trained RN who worked in the stressful A & E department of a hospital on \$24 per hour. After all the stress for 2 years, she left, and walked straight into a position in the corporate world and was given \$30 per hour, regular hours, bonuses for performance, medical insurance paid for and telephone given. Why would you stay in nursing if you are young? (respondent 42)

Discussion

The findings that nursing is hard work, requires shift work, carries high occupational health risks, and is a poorly paid profession were not new. Much has been written in relation to the nature of nursing work, in particular in response to increasing alarm over the magnitude of the global nursing shortage. However, this study contributes insight into the quality of the human experiences of nurses at work and reveals that their satisfaction with work and motivation to work are being sorely tested in the system of work.

The nurses in this study perceive that the workload of nursing is excessive, and their concern is reflected globally. In a global survey of nurses across 11 countries, the highest proportion (42%) gave the unprompted response "workload" when asked what was the most unfavorable part of nursing (International Council of Nurses & Pfizer Inc., 2009). Nurses are experiencing higher workloads than ever before (Carayon & Gurses, 2008). Excessive workload was identified as the main source of stress and dissatisfaction in Australia over a decade ago (Department of Education, Science and Training, 2001) and was echoed internationally (Aitken et al., 2001; Fagin, 2001; Royal College of Nursing, 2002).

One might argue that nursing work has always been hard and physically and emotionally demanding, yet "the one constant is the belief that workload has increased" (Duffield, Roche, & Merrick, 2006, p. 16). Our findings suggest that increasing patient numbers and their higher levels of acuity and complexity have contributed to excessive workload. Increasing patient acuity and the number of different diagnostic groups in medical and surgical units have been demonstrated between 2001 and 2005–2006 (Duffield et al., 2007). Yet these changes have not been mitigated with increasing staffing levels or an appropriate skill mix, leaving nurses doing more with less.

Nurses in our study were distressed at the compromises they were forced to make in the care they provided. The frustration they expressed is supported by a study of nurses in five countries in which oral hygiene, skin care, and patient and family education were left unattended at shift end (Aitken et al., 2001). The link between insufficient staffing (Hegney, Plank, & Parker, 2003a), increased workload, and levels of care have been recognized for over a decade (Aitken et al., 2001; Fagin, 2001) and brought into sharper focus more recently. The Mid Staffordshire National Health Service (NHS) Foundation Trust (UK) inquiry reported that basic care and compassion were found to be lacking. Many patients died or suffered unnecessarily, and nursing staffing levels were reported to be too low as long ago as 1998 (Mid

Staffordshire NHS Foundation Trust, 2013). Sadly, recent reports in Australia also tell a tale of neglect of basic patient care in the aged care sector (O'Neill, 2013).

In addition to staffing levels, nurses in our study felt that wider system factors contributed to their failure to provide adequate care for patients, and this resulted in frustration and distress at having to compromise time spent caring for patients. This finding was echoed by 96% of all nurses, who said that spending more time with individual patients would have a significant impact on patient health (International Council of Nurses & Pfizer Inc., 2009). The discord between what nurses believed was the essence of nursing, the public expectations of nurses, and the reality of an intolerable practice context forces experienced nurses out of the profession early and challenges recruitment of the next generation (Smith, Hood, Waldman, & Smith, 2005).

Shift work, although an inevitable feature of nursing work, contributed to recruitment and retention of the workforce. Shift work, and particularly night shift, impacted every aspect of the nurses' lives, affecting their personal disposition, health, sleep quality, and family life. System inflexibility and a lack of opportunity to influence rostering meant that for some the only control over this system was to work casually or withdraw from the workforce physically and mentally spent.

Nurses viewed shift work as carrying inherent risks (Huntington et al., 2011). Indeed, the literature supports the assertion that shift workers in general are at higher risk (Doherty, 2012) for developing sleep disturbances and hypertension (Costa, 1996), musculoskeletal disorders, work-related injury and obesity (Zhao, Bogossian, Song, & Turner, 2011), and their sequelae. The risks of shift work have been quantified in the NMeS cohort. Nurses who work rotating shifts are more likely to be overweight and obese, while night shift nurses are more likely to be obese compared with nurses who work day shifts only (Pan, Schernhammer, Sun, & Hu, 2011; Zhao, Bogossian, & Turner, 2012).

Nurses who work the night shift also report difficulties trying to achieve sleep quality and report a negative impact on their personal disposition. Shift work involving night shifts strongly influences individual psychology and psychophysiology (Akerstedt, 1990; Watson, 2013), and greater levels of job satisfaction are reported by nurses who work "social hours" (Gould & Fontenla, 2006).

Inflexible practices in rostering and shift work were an issue for those nurses who opted for night shift or who preferred not to work nights. Flexible working hours are influential in securing commitment to the profession (Gould & Fontenla, 2006) and provide control over one's own work patterns and practice environment

(Duffield et al., 2007; Leiter & Spence Laschinger, 2006), greater involvement in decisions about work (International Council of Nurses & Pfizer Inc., 2009), and the ability to cater to family responsibilities (Duffield and O'Brien-Pallas, 2002). Our study supported that leaders in nursing, as in other powerless groups, were controlling and rigid (Roberts, 1983) in their response to shift rostering. Flexibility was a characteristic of one exemplary manager, and there is a compelling role for nursing leadership at all levels in determining quality of work life (Leiter & Spence Laschinger, 2006). Nursing leadership is a driving force that indirectly relates to burn out (Leiter & Spence Laschinger, 2006), job satisfaction, stability of the ward environment, and patient care (Duffield et al., 2007).

Violence is an endemic feature of nursing work and is entrenched in workplace culture. The prevalence of workplace violence against nurses has been variously estimated from 30% point prevalence in Swedish nurses (Aitken et al., 2001; Arnetz, Arnetz, & Petterson, 1996), to 50% 3-month period prevalence in aged care nurses in Queensland, Australia (Hegney, Plank, & Parker, 2003b), and 64% 4-week period prevalence in Tasmania, Australia (Farrell, Bobrowski, & Bobrowski, 2006). Workplace violence rates are increasing over time (Hegney, Eley, Plank, Buikstra, & Parker, 2006; Hegney, Tuckett, Parker, & Eley, 2010; Landy, 2013), and the risk for workplace violence in nursing is higher compared to other occupations (Camerino, Estryn-Behar, Conway, van Der Heijden, & Hasselhorn, 2008), confirming the perceptions of nurses in our study. Violence was perpetrated on nurses by other nurses, other health workers, and patients, and the research literature differs regarding the most common sources of nursing workplace violence because variations in operational definitions make comparisons between studies difficult (Hegney et al., 2003b).

Lateral violence between nurses has been explained as a manifestation of oppressed group behavior, where violence manifests as a safe way to release tension compared with aggression against an oppressor (Roberts, 1983). However, conceptual analysis suggests lateral violence arises from several additional sources, including role issues, strict hierarchy, disenfranchising work practices, low self-esteem, perceptions of powerlessness, anger, and circuits of power (Embree & White, 2010). It is a form of bullying that has been addressed in some depth in the nursing literature (Jackson, Clare, & Mannix, 2002)

A study of newly licensed RNs in the United States supports our findings, in that experienced RNs were unsupportive and abusive of novice nurses, and their criticism was harsh, cruel, and traumatic (Pellico, Brewer, & Kovner, 2009). The implications of nurse-to-nurse

aggression on graduate retention are profound, with approximately 60% of new nurses leaving their first place of employment within 6 months (Embree & White, 2010). Perhaps most disturbing is the adage that "eating their young" seems to be synonymous with the profession. Findings from a large representative sample of nurses indicate that verbal abuse of early career RNs by nurse colleagues persists despite the attention paid to it over the past 5 years (Budin, Brewer, Chao, & Kovner, 2013).

Nurse managers have been identified in the literature as the major perpetrators of violence and bullying (Jackson et al., 2002) and have been reported to overlook bad conduct and turn a blind eye to mistreatment of nurses (Pellico et al., 2009). This suggests that nurse leadership and management need to be targeted to break this cycle of violence. However, viewing the role of nurse managers and leaders in the wider context of organizational, personal, and cultural antecedents should inform future direction (Embree & White, 2010).

Nurses also report mistreatment from other health professionals, of whom physicians are identified as the common offenders, perceived as being most often aggressive toward nurses compared with patients, relatives, and other nurses (Farrell, 1999). Physician arrogance, criticism and rudeness (Pellico et al., 2009), and intimidation and aggression (Jackson et al., 2002) are cited in the literature. Verbal abuse by doctors was reported by 27.1% of respondents and physical abuse by doctors was reported by 3.1% of respondents in a study of Tasmanian nurses (Farrell et al., 2006). Conversely, in a study of work environments, the most positive scores relating to work life were reflected by physician and nurse relations (Leiter & Spence Laschinger, 2006). Although previous research has identified the perpetrators of nurse abuse as patients. visitors, and medical staff, the finding that nurses also experience abuse from allied health, cleaning, and clerical staff is new. However, that is not to say that abuse from these sources is necessarily a new phenomenon. It may simply be unrecognized and consequently unreported in health service settings, in the research and by nurses themselves. Thus, it begs specific investigation in the future.

Nurses bemoaned the lack of zero tolerance and the absence of support in their workplaces. There is evidence that workplace policies for dealing with abuse from staff and nonstaff are perceived as inadequate (Hegney et al., 2003b; Jackson et al., 2002). In 2002, there was little evidence of a serious response to the overwhelming evidence of high levels of violence and hostility in the nursing workplace (Jackson et al., 2002). Our study suggests that little has changed since.

The impact of workplace violence, regardless of the perpetrators, on workforce attrition remains unclear. For some it is clearly a factor that results in attrition from nursing or from particular clinical environments that manifest higher risk, such as emergency and psychiatric departments, intensive care units, and geriatric care (Camerino et al., 2008; Farrell et al., 2006). Yet the research demonstrates that for others violence is tolerated (Embree & White, 2010), taken for granted as a part and parcel of nursing (Jackson et al., 2002), or normalized as part of nursing work (Hegney et al., 2003b). Some view violence as not causing as much distress as other aspects of the workplace (Farrell, 1999). Others postulate that nurses may be better able to cope with violence (Camerino et al., 2008) and that even in spite of the violence, nurses predicted they would still be nursing in 10 years (Jacobson, 2007).

Remuneration is a personal factor that influences the loss of nurses from the workforce (Currie & Carr Hill, 2012). In general, the nurses felt that financial remuneration was inadequate for the hard work of nursing. A study of Swedish nurses showed unsatisfactory salary contributed most to the decision to leave, highlighting the need to make nursing more attractive in terms of salary (Fochsen, Sjogren, Josephson, & Lagerstrom, 2005). Yet it is not only the monetary value of the wage that makes nurses dissatisfied. The wage is inadequate relative to the effort of work and the requirement for shift work. Salaries disproportionate to effort have been identified in other nursing workforce studies (Sjogren, Fochsen, Josephson, & Lagerstrom, 2005), and new graduates quickly identify that nurses are overworked, underpaid, and underappreciated (Pellico et al., 2009). Nurses in our study identified that shift work was required in order to maintain a reasonable income, a factor echoed in a Finnish study, where wages and the share of income from shift work were significantly associated with intention to leave (Kankaanranta & Rissanen, 2008).

Discontent was also expressed in comparison to remuneration received by others both within and outside the profession. Seniority, qualifications, and experience did not appear to be recognized in the system, and it seems important that newly qualified nurses ought not attract an equivalent or greater salary than those who have worked for many years (Sjogren et al., 2005). Perceived wage parity may result in resentment from senior nurses, who see new graduates making almost the same amount of money as they do (Weik et al., 2010). Disparity and lack of recognition from the perspective of experienced nurses may account for them dismissing the notion that younger nurses do not leave because of pay. Furthermore, nurses' satisfaction with compensation

does not appear to be associated with whether the practice environment meets their expectations (Smith et al., 2005).

Dissatisfaction with nursing wages seemed to be exacerbated when nurses saw opportunities to earn higher pay with better working conditions outside the profession. Comparisons with non-health sector employment were positively expressed, and a move from the health sector was seen as desirable in terms of wages and conditions. Nurses have professional attributes that are desirable and transferable, such as attention to detail, time management, an ability to work in stressful situations, and interpersonal skills. Although the health system does not value and reward nurses, other industries are doing so, and the attraction of nurses to other professions and careers will accelerate (Duffield & O'Brien-Pallas, 2002). Younger nurses have "many more career options available than before offering significant salaries with better conditions (such as no shift work)" (Duffield & O'Brien-Pallas, 2002, p. 140).

Good quality care is labor intensive, and people's care needs are most intense when they are least able to pay, so government financing of the costs of care places downward pressure on wages (Razavi & Staab, 2010). When workloads are high, the ability of nurses to provide the type and quality of care that result in their work satisfaction is compromised. A tipping point is reached when diminishing intrinsic rewards no longer provide adequate compensation for a shortfall in wages, and nurses leave. Solutions may include revamping incentive programs, providing retention bonuses, and rewarding perfect attendance or staying in the profession (Weik, Dols, & Landrum, 2010).

Although our sample leans toward Australian nurses, recent reports suggest that the responses are likely to be consistent across jurisdictions (Furlong, 2013; Holland, Allen, & Cooper, 2012; Lintern, 2013; Mahi, 2005; Smyth, 2013; Turner, 2013; World Health Organization, 2013). We also acknowledge the negative wording of the questions posed to NMeS respondents and the impact that this may have had on the findings. Nonetheless, the questions are likely to have elicited responses from those who had given thought to leaving the profession, the very nurses whose needs should be responded to in order to stem the exodus. Experienced nurses in the final stages of their careers have much to offer in the development of the new generation of nurses. Likewise, the new graduates, who have been educated to the highest formal standard ever in nursing history, also have future contributions to make to the development of the profession. To lose either is to squander a valuable professional resource.

Conclusions

The findings are consistent with those in the wider literature and add to the mounting evidence of the tension between the core precepts of nursing—compassion and care—and a system that actively precludes nurses from being able to exhibit these virtues and fails to reward them. This article makes an important and timely contribution to understanding nursing workforce attrition, and should inform policy and practice in the development of strategic, multifaceted responses to address this complex problem. The recommendations that can be drawn from this study are fourfold. First, the determination of nursing workload needs to extend beyond nurse:patient ratio to staffing mix. Adequate staffing should be determined with consideration to what nurses and their patients identify as an appropriate level of care. Secondly, while recognizing the inevitability of shift work, attention needs to be focused on strategies to mitigate the health risks of shift work and to develop rostering systems that afford nurses flexibility and control over their working lives. Thirdly, nurses need to be assured of their safety at work, and a zero tolerance stand needs to be taken to workplace violence. Finally, financial remuneration needs to reflect the education and skills required to undertake the demanding work that nurses do on a daily basis, and rewarding those who stay in the profession through incentives is worthy of investigation. A failure to respond to these recommendations to address the impact of workload, shift work, violence, and poor remuneration will increasingly be felt by those who remain, and for them, the pure hard slog that nursing is will likely only get harder in the immediate future.

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Clinical Resources

- Creating a Favorable Practice Environment for Nurses: http://www.ncbi.nlm.nih.gov/pubmed/16 344646
- Glueing it Together: Nurses, Their Work Environment and Patient Safety: http://www0.health.nsw.gov.au/pubs/2007/nwr_report.html

References

- Aitken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., Busse, R., Clarke, H., . . . Shamian, J. (2001). Nurses' reports on hospital care in five countries: The ways in which nurses' work is structured have left nurses among the least satisfied workers, and the problem is getting worse. *Health Affairs*, 20(3), 43–53.
- Akerstedt, T. (1990). Psychological and psychophysiological effects of shift work. *Scandinavian Journal of Work, Environment & Health, 16*(Suppl. 1), 67–73.
- Arnetz, J., Arnetz, B., & Petterson, I.-L. (1996). Violence in the nursing profession: Occupational and lifestyle risk factors in Swedish nurses. *Work & Stress*, 10(2), 119–127.
- Budin, W. C., Brewer, C. S., Chao, Y.-Y., & Kovner, C. (2013). Verbal abuse from nurse colleagues and work environment of early career registered nurses. *Journal of Nursing Scholarship*, 45(3), 308–316.
- Camerino, D., Estryn-Behar, M., Conway, P. M., van Der Heijden, B. I., & Hasselhorn, H. M. (2008). Work-related factors and violence among nursing staff in the European NEXT study: A longitudinal cohort study. *International Journal of Nursing Studies*, 45(1), 35–50.
- Carayon, P., & Gurses, A. (2008). Nursing workload and patient safety—A human factors engineering perspective. In R. Hughes (Ed.), *Patient safety and quality: An evidence-based handbook for nurses* (pp. 203–216). Rockville, MD: Agency for Healthcare Research and Quality.
- Chan, Z. C. Y., Tam, W. S., Lung, M. K. Y., Wong, W. Y., & Chau, C. W. (2012). A systematic literature review of nurse shortage and the intention to leave. *Journal of Nursing Management*, 21(4), 605–613. DOI: 10.1111/j. 1365–2834.2012.01437.x
- Costa, G. (1996). The impact of shift and night work on health. *Applied Ergonomics*, 27(1), 9–16.
- Currie, E. J., & Carr Hill, R. A. (2012). What are the reasons for high turnover in nursing? A discussion of presumed causal factors and remedies. *International Journal of Nursing Studies*, 49(9), 1180–1189. DOI: 10.1016/j.ijnurstu. 2012.01.001

- Department of Education, Science and Training. (2001). *National review of nursing education*. Canberra, Australia: Author.
- Doherty, P. (2012, August 16). Working on the night shift. *The Sydney Morning Herald*. Retrieved from http://www.smh.com.au/national/health/working-on-the-night-shift-20120815-248wk.html
- Downe-Wamboldt, B. (1992). Content analysis: Method, application and issues. *Health Care for Women International*, 13, 313–321.
- Duffield, C., & O'Brien-Pallas, L. (2002). The nursing workforce in Canada and Australia: Two sides of the same coin. *Australian Health Review*, 25(2), 136–144.
- Duffield, C., Roche, M., & Merrick, E. (2006). Methods of measuring nursing workload in Australia. *Collegian*, *13*(1), 16–22.
- Duffield, C., Roche, M., O'Brien-Pallas, L., Diers, D., Aisbett, C., King, M., . . . Hall, J. (2007). *Glueing it together: Nurses, their work environment and patient safety*. Sydney, Australia: Centre for Health Services Management, University of Technology Sydney.
- Elo, S., & Kyngas, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115.
- Embree, J. L., & White, A. H. (2010). Concept analysis: Nurse-to-nurse lateral violence. *Nursing Forum*, 45(3), 166–173.
- Fagin, C. M. (2001). When care becomes a burden: Diminishing access to adequate nursing. New York, NY: Millbank Memorial Fund.
- Farrell, G. (1999). Aggression in clinical settings: Nurses' views—A follow up study. *Journal of Advanced Nursing*, 29(3), 532–541.
- Farrell, G., Bobrowski, C., & Bobrowski, P. (2006). Scoping workplace aggression in nursing: Findings from an Australian study. *Journal of Advanced Nursing*, 55, 778–787.
- Finlayson, B., Dixon, J., Meadows, S., & Blair, G. (2002). Mind the gap: The extent of the NHS nursing shortage. *British Medical Journal*, 325, 538–541.
- Fochsen, G., Sjogren, K., Josephson, M., & Lagerstrom, M. (2005). Factors contributing to the decision to leave nursing care: A study among Swedish nursing personnel. *Journal of Nursing Management*, 13(4), 338–344.
- Furlong, C. (2013, August 31). Two-thirds of NHS nurses ready to quit over stress. *The Times*. Retrieved from http://www.thetimes.co.uk/tto/health/news/article 3857241.ece
- Gould, D., & Fontenla, M. (2006). Commitment to nursing: Results of a qualitative interview study. *Journal of Nursing Management*, 14(3), 213–221.
- Hegney, D., Eley, R., Plank, A., Buikstra, E., & Parker, V. (2006). Workplace violence in Queensland, Australia: The results of a comparative study. *International Journal of Nursing Practice*, 12(4), 220–231.

- Hegney, D., Plank, A., & Parker, V. (2003a). Nursing workloads: The results of a study of Queensland nurses. *Journal of Nursing Management, 11*(5), 307–314.
- Hegney, D., Plank, A., & Parker, V. (2003b). Workplace violence in nursing in Queensland, Australia: A self-reported study. *International Journal of Nursing Practice*, 9(4), 261–268.
- Hegney, D., Tuckett, A., Parker, D., & Eley, R. M. (2010).
 Workplace violence: Differences in perceptions of nursing work between those exposed and those not exposed: A cross-sector analysis. *International Journal of Nursing Practice*, 16(2), 188–202.
- Herzberg, F. (1959). *The motivation to work*. New York: John Wiley and Sons.
- Holland, P., Allen, B., & Cooper, B. (2012). *Analysis of the first national survey of nurses' attitudes to work conditions in Australia*. Melbourne, Australia: Department of Management, Monash University.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288.
- Huntington, A., Gilmour, J., Schluter, P., Tuckett, A., Bogossian, F., & Turner, C. (2009). The Internet as a research site: Establishment of a web-based longitudinal study of the nursing and midwifery workforce in three countries. *Journal of Advanced Nursing*, 65(6), 1309–1317.
- Huntington, A., Gilmour, J., Tuckett, A., Neville, S., Wilson, D., & Turner, C. (2011). Is anybody listening? A qualitative study of nurses' reflections on practice. *Journal of Clinical Nursing*, 20(9–10), 1413–1422.
- International Council of Nurses & Pfizer Inc. (2009). *Nurses in the workplace: Expectations and needs. A global survey of nurses May 2009*. Retrieved from http://www.icn.ch/images/stories/documents/news/advocacy/nurses_in_the_workplace/survey.swf
- Jackson, D., Clare, J., & Mannix, J. (2002). Who would want to be a nurse? Violence in the workplace—A factor in recruitment and retention. *Journal of Nursing Management*, *10*(1), 13–20.
- Jacobson, J. (2007). Violence and nursing. American Journal of Nursing, 107(2), 25–26.
- Kankaanranta, T., & Rissanen, P. (2008). Nurses' intentions to leave nursing in Finland. *European Journal of Health Economics*, 9(4), 333–342.
- Landy, S. (2013, July ll). Report reveals nurses increasingly face violence in the workplace. *Herald Sun*. Retrieved from http://www.heraldsun.com.au/news/report-reveals-nurses-increasingly-face-violence-in-workplace/story-fni0fiyv-1226677825820
- Leiter, M. P., & Spence Laschinger, H. K. (2006). Relationships of work and practice environment to professional burnout: Testing a causal model. *Nursing Research*, 55(2), 137–146.
- Lintern, S. (2013, February 19). NHS facing potential nurse workforce crisis, study warns. *Nursing Times.net*. Retrieved from http://www.nursingtimes.net/nursing-

- practice/clinical-zones/management/nhs-facing-potential-nurse-workforce-crisis-study-warns/5055044.article
- Deprtment of Labour Te Tari Mahi. (2005). Registered nurse: Occupational skill shortage assessment. Wellington, New Zealand: Author. Retrieved from http://www.dol.govt.nz/PDFs/professional-report-registered-nurse.pdf
- Mid Staffordshire National Health Service Foundation Trust. (2013). *Report of the Mid Staffordshire NHS Foundation Trust public inquiry*. Retrieved from http://www.midstaffspublicinquiry.com/sites/default/files/report/Executive%20summary.pdf
- Morgan, D. L. (1993). Qualitative content analysis: A guide to paths not taken. *Qualitative Health Research*, *3*, 112–121.
- Nandy, B. R., & Sarvela, P. D. (1997). Content analysis reexamined: A relevant research method for health education. *American Journal of Health Behavior*, 21(3), 222–234.
- National Health Workforce Taskforce. (2009). *Health workforce in Australia and factors for current shortages*. Retrieved from http://www.ahwo.gov.au/documents/NHWT/The%20 health%20workforce%20in%20Australia%20and%20 factors%20influencing%20current%20shortages.pdf
- O'Brien-Pallas, L., Duffield, C., & Hayes, L. (2006). Do we really understand how to retain nurses? *Journal of Nursing Management*, 14, 262–270.
- O'Neill, M. (2013, July 16). Mistreated nursing home residents "better off in a concentration camp." *ABC News, Lateline*. Retrieved from http://www.abc.net.au/news/2013--07--16/shocking-claims-elderly-being-mistreated-in-nursing-homes/4821492
- Pan, A., Schernhammer, E. S., Sun, Q., & Hu F. B. (2011).
 Rotating night shift work and risk of type 2 diabetes: Two prospective cohort studies in women. *PLoS Medicine*, 8(12), e1001141. doi:10.1371/journal.pmed.1001141
- Pellico, L. H., Brewer, C. S., & Kovner, C. T. (2009). What newly licensed registered nurses have to say about their first experiences. *Nursing Outlook*, *57*(4), 194–203.
- Razavi, S., & Staab, S. (2010). Underpaid and overworked: A cross-national perspective on care workers. *International Labour Review*, *149*(4), 407–422.
- Roberts, S. J. (1983). Oppressed group behavior: Implications for nursing. *Advances in Nursing Science*, *5*(4), 21–30.
- Royal College of Nursing. (2002). *Delivering for Scotland: Results for nurses in Scotland of the RCN employment survey*. London: Author.
- Schluter, P. J., Turner, C., Huntington, A. D., Bain, C. J., & McClure, R. J. (2011). Work/life balance and health: The Nurses and Midwives e-cohort Study. *International Nursing Review*, 58(1), 28–36.
- Sjogren, K., Fochsen, G., Josephson, M., & Lagerstrom, M. (2005). Reasons for leaving nursing care and improvements needed for considering a return: A study among Swedish nursing personnel. *International Journal of Nursing Studies*, 42(7), 751–758.

- Smith, H. L., Hood, J. N., Waldman, J. D., & Smith, V. L. (2005). Creating a favorable practice environment for nurses. *Journal of Nursing Administration*, *35*(12), 525–532.
- Smyth, C. (2013, July 30). *Nurses "too busy" to provide basic care for their patients. The Times*. Retrieved from http://www.thetimes.co.uk/tto/health/news/article 3829110.ece
- Tuckett, A., Winters-Chang, P., & Bogossian, F. (2014). "Why nurses are leaving the profession...lack of support from managers": What nurses from an e-cohort study said. *International Journal of Nursing Practice* (online). DOI:10.1111/ijn.12245
- Turner, A. (2013). Exhausted nurses leaving profession. *The Press*. Retrieved from http://www.stuff.co.nz/the-press/news/8995428/Exhausted-nurses-leaving-profession
- Turner, C., Bain, C., Schluter, P. J., Yorkston, E., Bogossian, F., McClure, R., & Huntington, A. (2009). Cohort profile:
 The Nurses and Midwives e-Cohort Study—A novel electronic longitudinal study. *International Journal of Epidemiology*, 38(1), 53–60.
- Watson, C. (2013, October 21). Shiftworkers putting health at risk and need longer weekends. *The Advertiser*. Retrieved from http://www.news.com.au/finance/work/shiftworkers-putting-health-at-risk-and-need-longer-weekends/story-e6frfm9r-122674405

- Weik, K. L., Dols, J., & Landrum, P. (2010). Retention priorities for the intergenerational workforce. *Nursing Forum*, 45(1), 7–17.
- World Health Organization. (2006). *The Global Health Workforce Alliance: Sharing experiences*. Global Health Workforce Alliance, 4–5 April Lusaka, Zambia. Meeting report, pp. 1–42.
- World Health Organization. (2013). WHO nursing and midwifery progress report 2008–2012. Geneva, Switzerland: Author.
- Zhao, I., Bogossian, F., Song, S., & Turner, C. (2011). The association between shift work and unhealthy weight: A cross-sectional analysis from the Nurses and Midwives' e-cohort Study. *Journal of Occupational and Environmental Medicine*, 53(2), 153–158.
- Zhao, I., Bogossian, F., & Turner, C. (2012). A cross sectional analysis of the association between night-only or rotating shiftwork and overweight/obesity among female nurses and midwives. *Journal of Occupational and Environmental Medicine*, 54(7), 834–840.
- Zurn, P., Dolea, C., & Stilwell, B. (2005). *Nurses retention and recruitment: Developing a motivated workforce*. The global nursing review initiative, Issues Paper 4. Department of Human Resources, World Health Organization. Retrieved from http://www.icn.ch/images/stories/documents/publications/GNRI/Issue4_Retention.pdf