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Title: Work Stress Among Nurses in Ontario

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WORK STRESS AMONG NURSES IN ONTARIO

INTRODUCTION

Since the 1980s, a great deal of research has looked at the possible causes of work stress and the impact of work stress on health. While the links between specific diseases and stress are complex and often unclear, it has long been accepted in the health literature that negative health outcomes and stress are related (Gatchel and Baum, 1983). This conclusion has been arrived at through two broad research approaches: the direct measurement of physiological responses to stressful stimulus, and questionnaires (generally self-reporting checklists) (Cohen, Kessler and Gordon, 1995; Karasek and Theorell, 1990). More recently, a smaller volume of research has examined the impact of work stress on work productivity and broader quality of life.

Nursing is a particularly stressful occupation and there is an emerging body of work stress literature devoted specifically to the prevalence, sources, impacts of, and responses to organizational work stress among nurses. Given that there is a perceived shortage of Registered Nurses in Canada as well as in other countries, the impacts of high levels of work stress on nurse retention and recruitment have become an important human resource and industrial relations issue.

INCIDENCE AND CONSEQUENCES OF WORK STRESS

Canadian Research

In 1994-1995, the first cycle of the National Population Health Survey (NPHS) surveyed 27,263 Canadian households, from which Statistics Canada derived individual files for 4,709 men and 4,314 women who reported working for pay or profit in the 12 months prior to the survey. This data indicated that nine per cent of men and 11 per cent of women between ages 18 and 64 experienced high job strain (Ibrahim et al., 2001:116). Also, men in Canada suffered significantly more stress from physical exertion on the job than women. Women, on the other hand, indicated experiencing higher stress from low skill discretion and decision authority (Wilkins and Beaudet, 1998:50; Fitzgibbon and Yantzi, 1997:24). In Canadian data, the sexes appear to experience different rates of health outcomes. Male respondents to the NPHS reported a more marked relationship between high job strain and poor self-rated health than did women (Ibrahim et al., 2001:119). High physical demands were related to much higher odds of work injury than were low physical demands (Wilkins and Beaudet, 1998:61). An analysis of psychological distress by separate work stress dimensions showed that the significant source of distress for men was job strain and that for women was low co-worker support. Overall, the average psychological distress score for women was higher than the average score for men (3.50 versus 2.97)(Wilkins and Beaudet, 1998:52, 54). Work-related injuries among women were related to high job strain, high physical demands, and low co-worker support (Wilkins and Beaudet, 1998:61).

In general, service and blue collar jobs make greater physical demands on workers and, for men, produce less job strain (Wilkins and Beaudet, 1998:51). Administrative and professional occupations generally produce the lowest levels of work stress. There is, however, an exception to this tendency in the Canadian NPHS data – professional women report significantly more physical demands on the job than women in administrative or clerical occupations, a fact Wilkins and Beaudet (1998:50-51) suggest may be due to the high proportion of women in nursing and teaching.

Regardless of sex and occupation, the incidence of stress from high levels of decision authority, psychological/physical demands and social support work stress appears to decline with increasing age, (Fitzgibbon and Yantzi, 1997:23). Indeed, psychological distress in general declines with increasing age (Wilkins and Beaudet, 1998:60).

Analysis of the NPHS data relating to shift work and health outcomes suggests that shift work has little or no impact on the incidence of chronic conditions or psychological distress once socio-economic characteristics and reported work stress levels are taken into account. Rotating shifts seem to have the most consistent relationship with negative results across work stress dimensions and high job insecurity is more evident among all shift workers compared with regular daytime workers (Shields, 2002). Shields (2002:23-24) suggested that the lack of cross-sectional relationship between shift work and health outcomes may be due to workers “self-selecting” for the ability to tolerate shift work with fewer ill effects.

Shields’ 1999 article regarding long working hours and health in the NPHS data found no relationship between long hours and work stress. However, there was a relationship between long hours and depression among women. Changing from standard hours to long hours between survey cycles was associated with weight gain among men, increased smoking among both sexes, and increased drinking among women. The effect of high job strain on the probability of a major depressive episode among women was of similar magnitude as that of long working hours, suggesting that long hours are related to depression by some mechanism other than by creating job strain.

In general, the large sample Canadian research suggests that female sex, youth, white collar occupation, and shift work are sources of job strain. Male sex, blue collar occupation, and professional occupation for females were risk factors for high physical demands on the job. The work done with the population-based NPHS has the advantage of large sample size, but has not been able to say much about the mechanisms through which gender, age, and other factors impact work stress and mediate outcomes.

Other Research

Research from countries other than Canada has, for the most part, found similar patterns in the occurrence of work stress and its outcomes (see in particular collections of European and North American research edited by Cooper and co-editors). However, a number of points relevant to work stress among nurses are made in more general work stress literature.

As in Canada, women have tended to report more psychological and structural work stressors (i.e., low pay) and fewer physical stressors than men. Of course, work stressors and outcomes also vary by occupation. Some occupations are still filled predominately by men or women (nursing being a

case in point) and the mediating effects of gender and occupation are correlated. Furthermore, Johnson and Hall (1996) suggest that men and women in the same occupation, even the same job title, do not experience the same psychosocial work environment and react differently to social networks, causing difficulty in studying the health effects of particular occupations.

The NPHS data indicated that work stress declined with increasing age. From U.S. research, Jex (1998:77) found that older workers had better coping skills than younger workers. He (1998:72) argued that more competent workers will experience less distress and fewer consequences to a given work stressor than would a less competent worker. Further, increasing competence might generally be associated with increasing age. Inasmuch as older workers with better coping skills might pass on these skills to younger workers, the loss of workers in the 55 to 65 age range through attrition could be detrimental.

While there seems to be a general acceptance in the U.S. and Europe that work stress can impact job satisfaction and worker health, the degree to which worker control explains differences in the impact of other stressors has varied greatly in studies. Ganster (1989:7) found in a meta-analysis of work stress outcomes research that participation in decision-making explained 10 per cent to 15 per cent of the variance in job satisfaction and about five per cent of the variance in self-reported mental and physical health outcomes. Ganster (1989:15) also found that Karasek's proposal that worker control moderates the relationship between stressors and reported job strain had mixed support in occupation- and organization-specific research.

Lerner et al. (1994:1582), in a nation-wide American study of 1,319 working respondents drawn from General Social Survey households, found that passive, low-strain and active job types had a statistically significant health advantages over high-strain jobs after taking into account demographic characteristics, chronic health conditions and other variables. High-strain job holders scored lower than other groups on physical function, role function limitations due to physical health, vitality, social function, and mental health subscales. These results, like those from the NPHS, would seem to suggest the merit of further investigating the genesis of Karasek and Theorell's construct of job strain and the health effects of high job strain. However, studies using direct physiological measures of possible stress indicators/outcomes such as elevated blood pressure and hormone excretion have shown mixed results, suggesting that work stress is not a major determinant of levels of stress related hormones, blood pressure, and level of risk of CHD (see, for example, Brown et al. 2003; Riese et al. 2000). It may be that the perception of work stress components is the key and that there may

be a difference in outcomes between individual-level perception of high stress and group-level perceptions of high levels of stress in the workplace.

The mechanisms by which mediating variables act between two variables and among themselves in any given individual appear to be too complex and varied to lend themselves easily to quantitative research. Furthermore, the “mediating” variables may also have a direct relationship with the chosen outcomes. For example, Lerner et al. (1994:1583) reported that the main effects of workplace and social support were associated with higher odds of positive results on health and role function subscales, but the interaction terms for job strain and support were not significantly related to health or function. Other studies have found that higher levels of workplace and social support lower job strain (for example, Jex, 1998, Karasek and Theorell, 1990).

Totterdell (2005:40-41) points out that there has been little empirical work done to support the various theories relating shift work to stress and health outcomes (other than fatigue). One model that has been validated from data is a three-phase wakefulness/sleep model that focuses on the effects of shift work patterns on alertness. In general, workers are most alert on their first night and become less alert with each subsequent night shift, and workers are more alert at the beginning of a night shift than at the end.

Like shift work, long hours are associated with fatigue. Long hours have also been related to reduced motivation, prolonged exposure to work stressors, and poor lifestyle habits like smoking. Along the lines of Shields’ comments regarding self-selection among shift workers, one study suggests that there is a stronger relationship between work hours and group well-being than between work hours and individual well-being (Totterdell, 2004:41).

WORK STRESS AMONG NURSES: WORKFORCE CONTEXT

Before considering work stress among nurses, it is useful to consider the past and present composition of the nursing workforce in Canada. The rate of growth of the number of registered nurses employed in nursing remained fairly constant between 1980 and 1991, but leveled-off in the 1992-2002 period.

There has been a number of interesting employment trends amongst nurses since 1994. From 1994 to 1999, the proportion of RNs working full-time decreased from 54.9 per cent to 49.2 per cent. This trend was reversed from 2000 on, with 51.4 per cent of nurses working full-time by 2003. The most striking trend is the decline in the casual workforce. Of these nurses working casual

hours, 61.1 per cent worked in hospitals in 1994, the percentage fell in 1999 to 59.4 per cent, and rose to 63 per cent in 2003(CIHI, 2004; CIHI, 2000).

A 2005 survey by the Registered Nurses Association of Ontario found that 59 per cent of nurses were working full-time and 68 per cent of hospital sector employers reported increasing the number of full-time positions in the previous 12 months (RNAO, 2005:3). The Ontario government made a commitment in 2004 to increase the number of nursing positions by 8,000 and to increase the percentage of nurses working full-time to 70 per cent. In the hospital sector, \$50 million in additional funding was provided for 800 full-time positions and employers exceeded expectations by creating 1,202 full-time positions in 2004. The gains are somewhat less impressive when expressed as full-time equivalents (FTEs) however, as only 714 FTEs were created (RNAO, 2005:5).

In 2003, recent graduates (five years or less since graduation) were much less likely to employed on a casual basis (17.7 per cent) than recent graduates in 1999 (51.6 per cent). Counter-balancing the decline in casual work among younger nurses was a slight increase in the rate of casual employment among nurses with 36 or more years since graduation (CIHI, 2004:35). Despite declines in casual work overall, if one compares the percentages of nurses in full-time positions with the percentage who prefer full-time hours, all age groups under 55 to 59 years fall short in actual full-time employment status (actual and preferred employment status changes with increasing age to part-time and casual work)(RNAO, 2005:27). RNs who graduated more than 20 years ago were also less likely to work in hospitals than recent graduates. Nurses in administrative, educational and research responsibilities had higher average ages, whereas younger nurses were more likely to be involved in direct care (CIHI, 2004:36-39; CIHI, 2000:20). The general career progression in hospital nursing is one of increasing hours and work demands after graduation to fewer hours and less direct involvement in acute care when past age 50.

The shrinking nursing workforce of the late 1990s was one element leading to the increasing use of overtime. A Canadian Labour and Business Centre report estimated that about 250,000 overtime hours per week (equivalent to 7,000 full-time positions per year) were worked by Canadian nurses (Hall et al., 2003). In 1991, 9.8 per cent of nurses reported working 41 or more hours in the week previous to the Census (Statistics Canada, 2004). By the 2001 Census, 14.2 per cent reported working more than 40 hours in the previous week, indicating a possible increase in overtime in general or an increase in the use of 12 hour shifts (three or more 12-hour shifts falling in the week in question would register as “overtime”).

Nursing in Canada is still a female-dominated profession, with 228,597 (94.7 per cent) of the 241,342 nurses in the 2003 nursing workforce being female. The average age of Canadian nurses increased from 42.8 years in 1999 to 44.5 years in 2003. A full 25.3 per cent of nurses were aged 55 years or more and thus at or beyond the estimated typical retirement age for Canadian nurses (CIHI, 2004:21). In the Canadian labour force as a whole, the 25 to 44 age group for both sexes was not expected to contribute at all to labour force growth in the 1996-2006 period (Foot et al., 1998).

This demographic aging of the Canadian nursing supply is also found in the United States where the average age of nurses is 44 years old and more than 40 per cent of nurses are expected to be over 50 years old by 2013. Similar patterns of aging are found in the United Kingdom and Australia (Chang, 2005:59). Given the large demographic birth cohort that occurred in most European and North American countries from the late 1940s to the early 1960s and the subsequent smaller birth cohorts, this aging of the general workforce and the consequent shortage of youth labour (Foot et al., 1998) is, barring an increase in immigration, unavoidable.

The initial educational attainment of Canadian nurses is increasing as all provinces now require or are moving toward the requirement of a four-year baccalaureate nursing degree for practice. In 2003, 13.9 per cent of all nurses earned a baccalaureate degree and 0.04 per cent earned a master's degree before practicing. Forty percent of new graduates entering practiced since 1999 hold university degrees, compared to 10.5 per cent of RNs entering practice before the year 2000 (CIHI, 2004:25). In terms of highest educational attainment, 23.8 per cent of Registered Nurses (RNs) held at least a baccalaureate degree, reflecting up-grading of qualifications of among nurses with college diplomas as well as increasing initial qualifications (CIHI, 2003:26-28).

In summary, the size nursing labour force is not growing at the pace of Canada's population, its members are aging and a good proportion are nearing retirement, and more nurses hold a nursing degree and work full-time than they did five years ago. The expected shortfall of nursing staff leads to the claim that work stress and the resulting decline in job satisfaction are more pressing human resource and policy issues (Aiken, et al., 2001:45).

CHANGES IN THE NATURE OF NURSING WORK

In relation to general work stressors, there is an on-going debate as to whether workers who deal directly with patients in health care experience particularly

intense psychological demands at work. David Rees, a British physician notes that:

Health workers are particularly susceptible to developing stress-related illnesses because of the nature of their work. Health professionals face occupational stressors which are not a feature of most other occupations and routinely deal with people in situations which have profound implications, often involving death and suffering (Rees, 1995: 91-92).

However, in comparing nurses' perception of pressure being intrinsic to their job to that of other hospital workers, only administrative and clerical hospital workers felt that pressure was less of an intrinsic characteristic of their job (Rees and Cooper, 2001:256). In the same vein, some researchers have found that the caring and emotional work involved in the health professions is precisely what makes these jobs rewarding, and nurses in particular report stress when they are unable to engage socially and emotionally with their patients (Tilley and Chambers, 2003:370; Messing, 1998). Messing notes that:

Emotional or mental work is not *intrinsically* stressful, although some tasks may be overly demanding. Women in the helping professions find that caring is an important part of their job, making it more rewarding (Messing, 1998:210).

The emotional demands of caring are one element of the nursing job role or definition of what it is to be a nurse. For some people, this role element might be what draws them to the nursing profession and makes the job personally rewarding. Role stress will arise from a disparity in what an individual believes to be the specific characteristics of their job role and what is actually being achieved by them in that role. When achievement is lower than role expectations, role stress is the result (Chang et al., 2005:58).

Chang et al. (2005:57) point out that, as of 2001, over 100 articles on role stress among nurses had been published. From these authors' summary of the research, it is apparent that little research has looked at the shift of the nursing role away from a provider of broadly defined patient care to that of a highly-skilled provider of medical treatments and interventions incongruously interposed with elements of low-skill labourer.

RECENT RESEARCH ON WORK STRESS IN NURSING

There has been a great deal of research into what makes nursing stressful and in this section I will focus on some of the most recent research on stressors, incidence of work stress, and health and career outcomes among hospital-employed nurses. The main issues in the literature reviewed here do not always fit neatly into Karasek and Theorell's categories of sources of work stress, and the concepts used often incorporate elements of stressors, mediating factors and outcomes. The issue of excessive workload, for example, can be considered as a set of stressors, a mediating factor, or an outcome. While Canadian studies are clearly important when considering nursing in the Canadian health care system, the broad similarities in the issues and findings of nursing work stress research internationally suggest that it is these issues that are central, not jurisdictional and health care system differences.

All of the studies included here were cross-sectional, with the exceptions of Bourbonnais and Mondor (2001), Woodward et al. (1999) and Cheng et al. (2000) which were longitudinal studies. Further, they all utilized self-administered questionnaires to measure work stress and outcomes. Therefore, the methodological problems mentioned previously in the critique of the general work stress literature also apply to studies in this section.

Workload was often identified in the research as being one of the most important sources of stress, job dissatisfaction, and other negative outcomes. The most obvious source of excessive workload is nursing staff shortages. Aiken, et al. (2001:47) found that only 29 per cent to 38 per cent of nurses across their five study countries felt that there were enough registered nurses to provide high-quality care and between 28.4 per cent and 37.7 per cent said there were enough staff to get the work done. In terms of other resources, between 41.1 per cent and 52.9 per cent said there were adequate support services. The importance of other resources to easing nurses' workload means one should not only consider whether the number of nurses is adequate, but also elements of staffing mix (such as the proportion of RNs to other nursing staff, nursing hours per patient day, ratio of RNs to patients), the balance of full-time, part-time and casual staff, and the demographic characteristics of the nursing staff (Hall, 2003, p.3).

A knock-on effect of a shortage of non-RN staff is the amount of time nurses spent on functions that did not utilize nursing expertise. For example, Aiken et al. (2001:49) found that Canadian nurses reported spending time in the last shift worked delivering and retrieving food trays (39.7 per cent of nurses), doing housekeeping duties (42.9 per cent), transporting patients (33.3 per cent), and

ordering, coordinating or performing ancillary duties (71.7 per cent). A high proportion of nurses in the U.S. and Germany also reported spending time on these tasks. Further, nursing tasks were left undone. Canadian nurses reported leaving the following nursing care tasks undone in the last shift worked: oral care (21.7 per cent of nurses), skin care (34.7), teaching patients or family (26.2 per cent), comforting/talking with patients (43.6 per cent), developing or updating care plans (47.4 per cent), and preparing patients and families for discharge (13.7 per cent). The amount of time spent on non-nursing tasks might represent both excessive demands and an inability to exercise skill discretion. Rees and Cooper's (1992:256) study used the OSI and found that nurses had significantly higher mean scores than doctors in stress from management role, and organization design and structure suggesting, perhaps, that too much time and effort was being taken up with administrative work.

Turning to job control, Aiken et al. (2001:47) asked respondents whether management listened and responded to their concerns, whether nurses could participate in policy decisions, and whether nurses' contributions to patient care were publicly acknowledged. Less than 50 per cent of all nurses answered in the affirmative to these questions, with German hospital administrations receiving the best results for listening and responding to concerns and acknowledging nurses' contributions, but worst on participation in policy decisions. American nurses were the most likely to be able to participate in policy decisions (40.6 per cent), with Canadian nurses running a close second (39.7 per cent). Canadian nurses were the least likely to indicate that management publicly acknowledged their contributions to patient care.

How well nurses felt management dealt with other workforce issues varied across countries, according to Aiken et al. (2001:47). Canadian nurses had the least control over scheduling work times (32.9 per cent indicated they could do so), whereas over 60 per cent of nurses in the U.S and Germany said they had control. There are also indications that nurses feel they are limited in their careers. Compared with doctors, nurses have been found to score high in stress from lack of career advancement/achievement (Rees and Cooper, 1992:256). A mere 20.9 per cent of Canadian nurses felt they had opportunities for advancement, compared to 32.3 per cent in the U.S., 43 per cent in England, 23.7 per cent in Scotland, and 61 per cent in Germany (Aiken et al., 2001:47).

Almost and Laschinger's (2002:415) study of workplace empowerment (similar to job control), collaborative work relationships and job strain in 117 nurse practitioners¹ in Ontario showed that empowerment and collaborative relationships with physicians accounted for 43 per cent of the variance in job

strain in acute care settings. Workplace empowerment was the only significant independent predictor of job strain for acute care nurse practitioners, possibly because of correlation between independent variables (job strain, collaboration with physicians and managers, and empowerment). A key finding in this study was that primary care nurse practitioners, who generally work for organizations with flatter organizational structures than those often found in hospitals, reported that the elements of empowerment important to collaboration with managers (and therefore lower job strain) were access to opportunities such as challenging work, meaningful rewards, and professional development. The acute care nurse practitioners, on the other hand, felt that collaboration with manager required empowerment through access to information and resources, as well as having a well developed network of alliances. In other words, nurse practitioners outside of hospitals gained control from personal development, whereas those working in hospitals relied on workplace relationships and politics.

In general, good relationships, and thus presumably good social support, with supervisors (ward sisters or head nurses) and physicians was seen to be important by nurses. Whether the importance of social support was through its role as a stressor or as a mediating variable was unclear in the nursing studies reviewed. Aiken, et al. (2001:47) found that most nurses across their study countries thought the physicians in their facility provided good quality care, reported good working relations with physicians and considered their nursing colleagues to be competent. Rees and Cooper (1992:256) found that doctors score lower than nurses on stress from relationships with others at work.

Much of the work stress research is concerned with determining the importance of factors contributing to work stress or understanding the contribution of work stress to particular outcomes. The incidence of high levels of various types of work stress among nurses is rarely reported, although two Canadian studies showed that approximately 37 per cent of Canadian nurses fell within Karasek's high strain job category (Laschinger et al., 2001:239; Bourbonnais et al., 1999, in Laschinger et al., 2001). Population-based research, such as that from NPHS data, contains insufficient numbers of respondents in specific occupations to allow valid statistical analysis.

The proportion of nurses scoring higher than the norms established by the developers of a "burnout" inventory² were highest in the U.S. (43.2 per cent) and lowest in Germany (15.2 per cent), Canada, England and Scotland had moderate proportions of high burnout scores (36 per cent, 36.2 per cent and 29.1 per cent) (Aiken et al., 2001).

Given the apparently high rates of work stress amongst nurses, quite a bit of attention has been given to mediating factors, often with an eye to developing solutions.

The paper by Laschinger et al. (2001) explored the possibility of gender as a major mediating variable between work conditions and organizational outcomes by over-sampling male nurses and using Karasek's JCQ and four outcome scales. Given the non-representative sample by gender, the researchers repeated their study with a proportionate stratified random subsample representative of the actual gender proportion in nursing and obtained the same results, suggesting gender did not play a significant role in the distribution and outcomes of work stress among their sample (Laschinger et al., 2001:241).

In Finland, Mäkinen et al. (2003:197) found that work stress among hospital staff nurses was not consistently related to four different modes of work organization: primary (patients are allocated to nurses), functional (nurses are allocated tasks), team (nurses are allocated a greater range of tasks within a team), and modular (small groupings of patients are assigned to a specific nursing team). Rather, being able to write nursing notes (sometimes called charting), decreased work stress by reducing interpersonal problems (Mäkinen et al., 2003:201). The authors also mention that writing nursing notes is more commonly done in the patient-focused primary and modular work organization modes, so perhaps there are elements of charting being a task that uses professional skills (it is relevant work) and involves thinking about patients (a well-written note is an element of caring).

Regarding social support, the review by Hall et al. (2003:4) of team functioning literature suggested that the quality of interaction, collaboration, communication, and coordination were important determinants of the quality of nurses' work life and quality of patient care. Rees and Cooper (2001:257) found that nurses made more use of the coping strategies of social support and use of non-work time than did doctors.

In a qualitative study by Billeter-Koponen and Fréden (2005:24-25), interviewees noted the importance of social support from co-workers and family in over-coming burnout, but some indicated that when co-workers still on the job were experiencing similar work stress they received little support or sympathy.

Of course, work stress is important because of its negative effects on nurses. The studies reviewed seem to indicate that the empirical support for negative health outcomes is mixed compared with that for job satisfaction and productivity, although up to 70 per cent of nurses responding to an American Nurses Association survey perceived the chronic and acute effects of stress and

overwork as a major health and safety issue (ANA, September 7, 2001). For example, in longitudinal research by Cheng et al. (2000:1436) nurses reporting high job demands and low job control had the worst health status³ and those with the highest control and lowest demands had the best health status. These effects of job strain were independent of socioeconomic status, baseline functioning, and other confounders, and the declines in health functioning were of the same magnitude as those associated with smoking or sedentary lifestyle. Conversely, Rees and Cooper (1992:258) found the mean score for current state of health amongst nurses was not significantly different from any other hospital occupational group, but nurses had the highest mean number of self-reported sickness absences of all occupational groups.

Billeter-Koponen and Fréden (2005) found, in open interviews with a small sample of ten nurses experiencing “burnout,” that a sense of powerlessness in relation to determining patient care and contact was a major contributing factor in their decision to go on sick leave. Bourbonnais and Mondor (2001) found that short-term sick leaves were only associated with the combination of high demands and low decision latitude (high strain jobs) and low social support at work. High strain jobs also showed a relationship in the expected direction for certified sick leaves, particularly for mental health diagnoses, but the results did not reach statistical significance. Low social support was significantly related to certified sick leaves (Bourbonnais and Mondor, 2000:197).

In Decker’s (1997:460) survey, the mental health outcome of psychological distress was strongly related having to the personality trait of being prone to anxiety, unit tenure, lower social integration, and to a less significant degree, to poor relations with the head nurse and physicians, lower position in the job hierarchy, and less experience.

Relative to doctors, nurses expressed significantly less job satisfaction relating to achievement, feeling valued and whether they felt their job was rewarding (Rees and Cooper, 1992:257). Laschinger et al. (2001) found that staff nurses who had high strain jobs felt significantly less empowered, less committed to their employer, and less job satisfaction than nurses who reported less job strain. Nurses with active jobs (high control and demands) reported that they found their work more meaningful, felt more confident in their skills, and had more autonomy. They also reported having greater access to information, support, resources and training (Laschinger et al., 2001:239). Good relations with the head nurse, coworkers, and physicians in one’s own unit and with other units as a whole were found by Decker (1997:460) to be predictive of job satisfaction,

whereas increasing job tenure and work/non-work conflict was predictive of decreased job satisfaction.⁴

In comparison to a job dissatisfaction rate among all professional workers of 10 per cent in the U.S. General Social survey from 1986 to 1996, 41 per cent of nurses surveyed in the U.S. were dissatisfied with their present job. Nurses in Canada, England and Scotland also experienced high levels of dissatisfaction (32.9 per cent, 36.1 per cent and 37.7 per cent respectively). German nurses were the least likely to be dissatisfied (17.4 per cent) following the pattern of reported “burnout” (Aiken, et al., 2001:46). The relative impacts of this dissatisfaction on potential turnover were measured by determining the proportion of nurses under and over the age of 30, and the proportion of these groups who planned to leave their job in the next year. Only 10.3 per cent of Canadian respondents were under age 30 compared to a high of 40.6 per cent in England. While 16.6 per cent of all Canadian respondents indicated they planned to leave their job in the next year, 29.4 per cent of those under age 30 thus indicated. This was a vastly different structure of entry and exit than that indicated for England (38.9 per cent for all nurses, 53.7 per cent for those under age 30) and Germany (one-third of respondents were under age 30, 16.7 per cent of all respondents and 26.5 per cent of those under age 30 said they planned to leave).

One consistent finding in the research is that Canadian nurses are generally satisfied with their salaries. This is not the case internationally – for example, in England and Scotland about 20 per cent and 26 per cent of respondents felt their salaries were adequate (Aiken, et al., 2001:47). In Canada, pay equity legislation has played a big role in the improvement of nurses’ salaries. In the early 1990s as female dominated jobs were adjusted upwards, Ontario’s nurses saw their salaries increase 29 per cent while public sector pay increases amounted to 0 per cent (Sutherland and Fulton, 1994:57).

While questions relating to hazardous exposures and risk of injury from Karasek and Theorell’s original model of work stress have been dropped by subsequent users of the JCQ, the experience of verbal abuse, physical violence, exposure to infectious agents and back injuries is not seen as trivial by nursing researchers or associations (Messing, 1998; ANA, September 7, 2001). About 61 per cent of Canadian and 53 per cent of American nurses reported occasional or frequent verbal abuse from patients directed at nurses (Aiken et al., 2001:50). American nurses were worried about incurring a disabling back injury (60 per cent), contracting HIV or hepatitis from a needlestick (45 per cent), being infected other diseases (37 per cent), being assaulted on the job (25 per cent), developing a

latex allergy (21 per cent), and having a fatigue-related car accident after their shift (18.8 per cent)(ANA, September 7, 2001).

Policy development by the Canadian Health Services Research Foundation (Baumann et al., 2001) places the risk of injury and workplace violence, along with job security, together under the notion of basic predictability. The CHSRF argues that a high level of basic predictability is necessary for there to be a healthy workplace.

The research above did not specifically address the role of changes in work organization associated with hospital restructuring in generating stress. The studies reviewed in the next section focus on the impact of work and organizational change on nurses' work stress.

HOSPITAL RESTRUCTURING AND WORK STRESS

Most models of work stress assume either a workplace at a fixed time or a structure of work organization that is unchanging through time. The restructuring of work within an organization adds the element of change to concepts of work stress and there is some evidence that change alters the relationship between job control and psychological demands.

Hospital restructuring in Canada began in the early 1990s and involved budget cuts, hospital mergers, and scaling back the level of service delivery to patients, although the precise timing and content varied by province (Bourbonnais et al., 2005:54; Wolkinson et al., 2003:135-136; Association of Canadian Teaching Hospitals, 2000; Woodward et al., 1999:556). In Ontario, one quarter of hospital beds were closed between 1990 and 1995 and an 18 per cent reduction in hospital budgets over three years was announced in 1995. The financial pressure from the Ontario government forced hospitals to restructure through mergers and unit closings, and to re-engineer work through outsourcing of work, increased use of temporary and part-time workers, pay cuts, and other cost-cutting measures (Woodward et al., 1999:556-557).

The experience of hospital restructuring is not unique to Canada, however. Restructuring was initiated somewhat earlier in the British National Health Service, with a cost-cutting phase in the late 1970s and early 1980s, and the introduction of new management techniques, cultural change, and quality indicators (Warrian, 1996:84-85). Researchers have also been following the ongoing labour impacts of market-driven health care changes in the United States.

Wolkinson et al. (2003:136) suggest that hospital administrators see layoffs as an effective means of cost-reduction, sometimes in conjunction with bed closures.

The result for nurses has been job insecurity, insufficient staffing and consequent excessive workloads on the remaining nurses. American nurses and unions view overtime as a substitute for adequate staffing, although administrators may see it as a tool providing staffing flexibility (Wolkinson et al., 2003:142).

Aiken et al. (2001:48) asked nurses in the U.S., Canada and Germany about changes in workload and the structure of nursing leadership and management structure in the year prior to the survey (Table 5). Nurses in all three countries reported having to look after more patients with less managerial support. American nurses saw the greatest percentage increase in patient workload and loss of lower level nurse managers, but it is not clear from the study whether these trends occurred evenly across publicly and privately run hospitals. Canadian nurses reported the highest percentage loss in higher level nursing management.

After major restructuring in the Québec health care sector between 1996 and 1998, 80 per cent of nurses said they had experienced increased workload since the start of restructuring, 35 per cent reported lower decision latitude, and about two-thirds said social support from colleagues and supervisors had declined (Bourbonnais et al., 2005: 57). While the prevalence of low decision latitude was lower after restructuring, the ratio of the percentage of nurses who reported the high strain combination of high demands and low decision latitude in 1998 and 1994 samples was 1.24. The ratio between the percentage post-restructuring high strain jobs among nurses and the percentage among a 1998 sample of Québec working women after adjustment for age and job type was 2.17. Variables for changes in job demands, decision latitude and social support created by the authors indicated that increases in work demands and decreases in support at work were independently associated with psychological distress (Bourbonnais et al., 2005:59).

Burke and Greenglass (2000:170), in a 1996 survey of a sample of 1,362 RNs in Ontario, confirmed that hospital downsizing and restructuring were related to lower job satisfaction and poorer psychological well-being. The authors suggested that full-time and part-time workers would differ in their experiences of down-sizing and restructuring. They based their hypothesis on the notion that full-time workers compare their situation to that of other full-time workers and part-time workers draw comparisons from other part-time workers, that part-time workers have lower job and security expectations, and that part-time workers are less involved and committed to the organization (Burke and Greenglass, 2000:164). However, Burke and Greenglass (2000:169) found that both part-time and full-time nursing staff experienced downsizing and

restructuring in the same way, despite differences in age, non-work responsibilities, job tenure, and management role. In terms of outcomes, full-time nurses were more likely to be absent, suffer emotional exhaustion, and experience lower well-being. However, full-time nurses were also less likely to report intention to quit than part-time nurses. The authors suggest that the differences in work outcomes and indicators of well-being are more a product of full-time/part-time status and demographic/family circumstance differences than the result of hospital downsizing and restructuring (Burke and Greenglass, 2000:170).

Woodward et al. (1999) reported on a three-phased, two-year longitudinal study of 346 employees in one large Ontario hospital. While the proportion of nurses of the 220 health care professional respondents was not given, the longitudinal study design through restructuring lends this study weight. The research results showed that the JCO components of job demands, lack of role clarity and job insecurity increased, and co-worker support, supervisor support and team work decreased among staff over the study period. At the time of the first measurement period in Spring 1995, senior managers had begun to plan for, and had announced plans for restructuring. The second survey took place in 1996 after staff consultations on restructuring and the announcement of voluntary severance packages and job losses. The final survey took place in 1997, after a merger with another hospital, changes in senior administrative staff, re-engineering of clinical units and services, and in-patient staff being forced to reapply for “new” jobs in merged hospital (Woodward et al., 1999). Anxiety among staff peaked in 1996 then declined in 1997 to a level higher than originally, depression scores rose then leveled off, and emotional exhaustion continued to rise across the three cycles. Three aspects of the work environment – treatment of physicians by hospital, staff relations, and overall impression of work environment – were seen to deteriorate over the study period as were measures of patient care (Woodward et al., 1999).

The restructuring in the study above occurred in a relatively short time span and the rate of change might have had an impact over and above the change itself. Billeter-Koponen and Fréden (2005:23) suggest that the speed at which organizational and educational changes are happening affect the working environment and altering nurses’ work roles.

Laschinger et al. (2003:410-411) suggest that “magnet” hospitals – those that have progressive politics to attract and retain workers – have work environments that promote nurse autonomy and control over the work environment and good relations with physicians. Nurses in these hospitals have the ability to mobilize

information, support and other resources, and develop learning opportunities and professional relationships. Job satisfaction is higher and “burnout” is lower in hospitals with such work environments. The many of the effects of restructuring would appear to create a work environment that is the antithesis of a magnet hospital; this may not be problematic when cost-cutting is the primary concern but will not attract the high skill staff required when effectiveness and quality of service delivery are paramount.

Restructuring and the resultant increases in work demands need not result in detrimental effects on workers. Parker et al. (1997:299) suggests that positive changes in work characteristics such as increased participation in decision-making and increased role clarity can be incorporated into restructuring plans. The key to minimizing work stress is to incorporate responses into a framework of strategic restructuring. Billeter-Koponen and Fredén’s (2005:24) study found that “powerlessness in influencing the valuation of the work of nurses” in the context of restructuring is a key factor in producing nurses’ burnout. This small qualitative study suggests that, to avoid burnout and the resulting increase in sick leave, the process of decision-making during restructuring should include nurses’ input. Specifically, the respondents wanted recognition of their knowledge, experience, the importance of the nurse-patient relationship to hospital functioning and of the impacts that restructuring decisions had on their daily work.

RESPONSES TO NURSES' WORK STRESS: CONTEXTUALIZING RESPONSES TO WORK STRESS

The approach taken by management or employees to prevention and mitigation of work stress in the workplace will depend on whether stress is seen as being an individual (internal) or an environmental(external) problem. If individual characteristics are emphasized, then remedial strategies will involve teaching workers better ways of coping with the work environment. On the other hand, if a structural approach is taken and the role of the work environment is emphasized, then strategies to alter job requirements and organizational structure will be adopted. Empirical support for the origins of work stress in both individual and job environment suggests that negative work stress will be best reduced by a combination of coping skills education and changes to the work environment. However, many employers find it expedient to focus on providing training and counseling to individuals (see for example, Parus, 2003; Spiers, 2003), rather than making changes to work organization and structures of authority.

Hospital-based nurses in Canada have a two-tiered employer. While their immediate employer is the administration of a hospital, provincial governments provide fixed funding for health care. This leads to a disconnection between provincial nurse staffing policy, health care budget policy and its implementation at the level of individual hospitals. In this context, the decision latitude of hospital administrators regarding staffing is constrained, often by budget limitations. When asked about what barriers existed to the success of full-time nurse staffing plans, Ontario employers cited, in descending order of frequency, recruitment and retention, cost in time management and money, scheduling challenges, and union contracts (RNAO, 2005:23).

Coburn (1998:338) suggests that hospitals' role as immediate employers and nurses' subordinate status to physicians have acted as a "buffer" in the relationship between nurses and the state. Nurses' day-to-day experience of the work environment is of the hospital but nursing associations tend to focus on influencing government policy. The position of nursing associations and employers are in some ways alike – they both must balance the work experience of their members/employees and the regulatory and monetary requirements imposed by government. The RNAO recognized the need for employers to attract and retain nurses by creating "magnet" environments and in its 2004 survey asked nurses to rank factors in terms of their importance and employers to rank each factor in terms of its feasibility (1=Not important or Not very feasible, 5=Very important or Very feasible). Nurses value magnet factors that

contribute to the quality of their work/life balance, time management, remuneration and workplace relationships. Hospital-employed nurses scored all factors except “Challenging work” as being important to them (mean score of 3.5 or more). Hospital employers tend to rate magnet factor feasibility by cost and only the mean scores for the first to third ranked factors were 3.5 or above (RNAO, 2005:30-32).

The RNAO paper acknowledged that employers need funding from government to make the work environment more attractive to nurses. Further, they also acknowledge that the preferences of individual nurses are beyond the control of employers and governments. For example, the RNAO estimated that only 65.5 per cent of hospital sector nurses would be working full-time if all RNs had their preferred employment status (RNAO, 2005:26)

Beyond the issues of work hours and workload, the research about the sources and solutions to nurses’ work stress is, by and large, conducted by university-based nursing and nursing administration departments. Little attention to the subject appears to be paid by hospital administration researchers. Work stress at the individual level often manifests itself as difficult personal situations (such as a difficult supervisor) that are uncomfortable to deal with or viewed as inevitable. Messing (1998: 133-134) suggests this is why employers and unions often focus on changing workers’ reactions to stressors rather than addressing the root causes. Stress management programs, a favorite response of employers to work stress, have been shown by research to have mixed results in terms of job satisfaction, productivity/performance; absenteeism/turnover, and clinic visits/health claims (Murphy, 1988:317-318).

Hospital CEOs in Canada admit to having little experience and guidance to draw upon during the process of hospital merger and organizational restructuring (Association of Canadian Teaching Hospitals (ACTH), 2000:1). Two problem areas mentioned by CEOs stand out – the disruption of culture and the unforeseen costs of merging coupled with budget cuts that hindered administrators’ ability to put in place new programs (ACTH, 2000:3, 6). Both of these elements have the potential to increase work stress among all hospital employees, not just nurses. The degree of disruption of work culture depends on the style of implementation and CEOs believe that setting clear goals and communicating reasons for changes to employees are the key elements to minimizing disruption (ACTH, 2000:3-5). On top of reduced budgets, hospitals must deal with government mandated requirements for mergers and nursing salaries that are bargained at the provincial level (ACTH, 2000:8). Unless nurse staffing programs such as that recently adopted by Ontario are in place,

administrators have few options other than reducing the numbers of nurses (or nursing hours) to curtail nursing costs, thereby intensifying the workload of the remaining nurses. The alternative to structural work redesign in restructuring is to provide career counseling for laid off staff and employee assistance programs to help remaining employees cope with restructuring (Woodward et al., 1999).

The pressures wrought by health care restructuring have forced hospital managers to pay greater attention to human resource issues. The Ontario Hospital Association (OHA) has a Policy and Research Unit that has taken an interest in human resources issues for health care providers in general. The Unit's research objective was "...to outline and develop health human resources strategies for change and innovation in minimizing the supply/demand gap and enhancing recruitment and retention" (OHA, 2003:5).

From a government perspective, the possible responses to human resource problems are limited – they have no control over many areas of health care costs, must budget for other public services (Sutherland and Fulton, 1994:28) and cannot determine the organizational relations of individual hospitals. Governments have been forced to do a better job of publicizing the fact that increasing spending in one area of health care requires cuts elsewhere. For example, expensive new cancer drugs and increasing prices for existing cancer drugs have pushed the wholesale costs of these drugs to pharmacies and hospitals from \$562-million in 2000 to \$975-million in 2004. Faced with such costs, governments are no longer avoiding sensitive public battles about whether spending a large sum of money on a few patients is the most effective use of resources (Priest, August 1, 2005:A5). The provincial governments face similar debates and decisions regarding how much to spend on nursing relative to other health care areas and how money can best be spent within nursing.

Provincial governments have been addressing some staffing, workload and job control issues. For example, Ontario has increased the number of nurses (particularly in full-time positions), is discussing the scope of nursing practice, establishing quality workplace initiatives, and mandating a Chief Nursing Officer position in every hospital. Most recently, the Ontario government acknowledged the role that physical demands play in the decision of older nurses to take early retirement and announced funding for a program that would allow nurses over 55 years old to spend 20 per cent of their work hours mentoring young nurses, educating patients and their families, or providing clinical advice. However, the president of the ONA, Linda Haslam-Stroud, disputed the number of nursing positions created since the current government has been in office, placing the number at about 1,000 rather than the claimed

3,000, and dismissed the program for older nurses as “a band-aid solution” to lay-offs and impending retirements (Gillespie, July 26, 2005:A1, A4).

As the provision of health care is under provincial jurisdiction, the federal government’s main interest lies in creating national nursing policy. In 1999, the Office of Nursing Policy was created within Health Canada to “strengthen the focus on nursing policy issues within Health Canada” and to contribute to policy and program development (Health Canada web site, n.d.). Included in the Office of Nursing Policy’s mission is a focus on nurses’ working environment:

Strides have been made in improving the health of nurses and their workplaces, and the office is promoting the importance of quality workplace settings in Canada and around the world. Healthy and safe workplaces will continue to be a key focal point for us, as we study links among workplace health, safety and high-quality patient care. (Health Canada website, n.d.)

Nursing associations in Canada facing problems in the work environment have tended to focus their efforts on research, joint governmental/hospital/health care professions advisory committees, and influencing public and political opinion. This has certainly been the case with the intertwined issues of staffing levels, work stress, and workplace hazards. In general, occupational health practitioners have had little success in combating work stress, but Messing (1998:111) notes that nursing, teaching and social work unions often put resources into reducing collective stress in the workplace. The various union and professional bodies representing Canadian nurses have collaborated with provincial and federal governments to produce reports identifying the most pressing issues facing nursing and proposing solutions.

In 2003, the Canadian Nursing Advisory Committee (CNAC) published its final report on creating quality workplaces for nurses. This Committee was set up by the Conference of Deputy Ministers of Health and included 16 members representative of geographic distribution, three levels of government, nursing (11 RNs and 3 Licensed Practical Nurses) and non-nursing backgrounds, nursing professions, practice settings, and stakeholder perspectives. Among the Committee’s terms of reference was the following:

- To formulate recommendations for policy direction to improve quality of nursing work life which would provide a framework

and context for work life improvement strategies at the provincial/territorial level. (CNAC, 2003:59)

A year after the release of the CNAC report, nursing associations pointed out that few of the recommendations in the report had been acted upon (CPRN, July 9, 2004:2). Being concerned mainly with excessive work demands (couched as a shortage of nursing care), the CNAC (2003:8) identified three root causes:

- an actual current shortage of nurses(e.g., a reduced number of seats in nursing education programs and an aging nursing workforce);
- human resource management issues that make it impossible to maximize the productivity of the nurses who are available to work (e.g., high absenteeism, high overtime, high rate of part-time work, high number of non-nursing tasks, and limited scope of practice; and
- insufficient funds to hire the number of nurses needed to deliver the care being demanded.

In relation to the problem of newly graduated nurses being outnumbered by retiring nurses, CNAC (2003:11) believed that increasing the number of admissions to 4-year nursing degree programs would not solve the current shortage, particularly since clinical placements are hard to come by in the downsized hospital system. CNAC dismissed lowering educational requirements for new nurses (back to community college diploma) as unacceptable professionally. Later on in the report CNAC also points to the high proportion of nurses working part-time or casual hours (this has declined since the report). If, as CNAC claims, many of these nurses' part-time status is involuntary then their claims for a shortage of nurses falls flat (the claim about nursing care hours may still hold).

In relation to the second root cause, CNAC (2003:35-38) suggested that employers “[p]ut in place conditions to resolve operational workforce management issues and maximize the use of available resources”, not a helpful suggestion in and of itself. However, they did suggest the specific actions of: maximizing the hours of work of current nurses (increasing the number of full-time nurses, targeting the causes of absenteeism, and reducing overtime); retaining older workers (phased-in retirement, and alternative work, equipment

and human resources to allow older nurses to stay at work); flexible scheduling (critiqued both employers and unions for practices that impede scheduling flexibility); more favourable collective agreement provisions and more pay; and reducing non-nursing tasks and increasing scope of practice (hiring more support staff, governmental review of nursing scope of practice, and employers giving up control of nursing practice).

CNAC (2003:38-40) also called for better professional practice environments in which nurses and nurses' contributions are welcomed and respected. They suggested a greater presence of nurses in the ranks of first-line managers and human resources to support management positions.

Building on the notion of respect in the workplace and improving the working environment, CNAC (2003:43) demanded zero tolerance policies in relation to violence, abuse and harassment, including involvement of police and punishment of offenders. Interestingly, CNAC cites research in which nurses in focus groups identified higher salaries as one of the top priorities in gaining more respect (CNAC, 2003:23).

Finally, CNAC (2003:43-44) asked that governments provide nurses with resources to develop a professional "voice" and political power, and accreditation bodies include support activities that improve nurses' working lives.

These same recommendations can be found the policy report on nursing work environments by the Canadian Health Services Research Foundation produced with government, nursing group and employer group funding (CHSRF, 2001).

Another CHSRF funded study looking at nursing productivity/utilization in hospital cardiac and cardiovascular units suggests that, while maximum productivity/utilization is 93 per cent (seven per cent of nurses' paid time is mandatory breaks), nursing productivity/utilization of 85 per cent plus or minus 5 per cent results in the optimum cost and quality of patient care outcomes. Productivity/utilization levels below 83 per cent promote the retention of experienced nursing staff by reducing emotional exhaustion. The authors suggest that improved care delivery and performance monitoring would allow hospitals to maintain the appropriate productivity/utilization levels (O'Brien et al., 2004). The need for better data capture and use is also a theme in Ontario Hospital Association (OHA) and Registered Nurses Association of Ontario (RNAO) documents. The OHA and the RNAO more clearly identify the solution to lack of data as being the increased use of human resource information systems (such as workload measurement systems) and incorporating the use of hard data into the

staffing decision-making process (RNAO, 2005; OHA, 2003). The Canadian Nurses Association (CNA) also supports “evidence-based decision-making” with nurses having access to data and the information technology itself, as well as meaningful input into policy and decisions on a broad range of hospital management issues (CNA, 2001).

Unlike RNAO, CPRN and CNA, the College of Nurses of Ontario (the professional registration body) and the Ontario Nursing Association (nurses’ union) fail to mention work stress or job strain in their publicly available material. Both organizations currently put more effort into calling for greater professional recognition and authority.

Common to the research reviewed and the responses from stakeholders is the lack of consideration of the broader structure of health care in which work relations are embedded. The ideology of health care is shifting from one dominated by a quasi-scientific model dominated by the medical profession to one in which health and health care are commodities and their exchange subject to competition. The merger and restructuring of hospitals is emblematic of this “corporate rationalization” (Coburn, et al., 1998:533). Critics argue that the structure of the Canadian health care system is based on the competitive pursuit of private profit. Physicians are motivated by financial self-interest and the drive for ever more complex and prestigious interventions, medical equipment and drug suppliers are profit-driven, and other groups such as nurses are competing for employment, health care dollars, and prestige (Evans and Stoddart, 1998:551-552; Swartz, 1998:542-543). Swartz suggests that competitive, profit-motivated forces mean it is more efficient to push patients through the system by minimizing “unnecessary” (unprofitable) contact time. He also argues that the patient contact time for nurses and other support staff must be limited so that resources can be redirected to hardware and the people to run it (Swartz, 1998:543). The demand from physicians and patients for intervention, without evidence of clinical effectiveness and definitely without consideration of cost-effectiveness, exists in tandem with the drive for efficiency, cost-control and profit (Evans and Stoddart, 1998:552). Taking these factors into account, the shift in the role of nurses from provider of holistic patient care to that of highly skilled technician and/or menial hospital labourers makes sense. Nursing “productivity” can be defined as the number of medical procedures a nurse can perform each day or as the number of support staff functions nurses can assume on top of their nursing duties.

Evans and Stoddart’s (1998:556) international review of health care debates reveals that “health care crises” are near universal in Western Europe and North America. Their interpretation is that perceptions of crises “...arise from conflicts

over the level of expenditure on health care (and thus by definition also over the levels of incomes earned from its provision)" (Evans and Stoddart, 1998:557). These conflicts appeared to be independent of the level of provision and cost. The counterargument to the efficiency and cost-control position is one of unmet health needs and under-funding. Evans and Stoddart (1998:558) use an example relevant to this paper:

The current 'shortage of nurses' in Canada and indeed most of the industrialized world, provides a good example. Nursing 'shortages' have been cause for periodic concern in Canada for more than a quarter century. Yet throughout that period, there has been virtually uniform agreement among informed observers that utilization of inpatient beds in Canada is substantially higher than 'needed', and efforts have been ongoing to reduce such use. Taking both positions together, this suggests that there is a 'shortage' of nurses to provide 'unnecessary' care!

That the rhetoric of health care professional and support workers, including nurses, should be focused on "crises" of staffing, resources, working conditions, level of care and quality of care should not be surprising. Each group positions itself as crucial and its problems as pressing; they are engaged in competition amongst themselves for finite employment and remuneration. Sutherland and Fulton write that the competition can be brutal, as when one group wins another loses. They suggest the winners will be those groups that are effective politically, tactically, and technologically. The reports reviewed above on nurse staffing and work environments are a part of that profession's mobilization to secure health care resources. Coburn suggests (1998:339) that nursing militancy has been mobilized effectively to counter hospital and medical dominance, with a nursing elite being able to channel nurses' discontent. He points out that the three organizations representing Ontario nurses in the 1990s – the Ontario College of Nurses (registers nurses), the Ontario Nurses Association (a federation of unions) and the Registered Nurses Association (professional association) - had different visions of the future of nursing and that control over these organizations was key to nursing interest groups.

The crux of the matter appears to be that within a commodified model of health care delivery, the traditional role of the nurse to provide "care" (physical, emotional and social support) to patients has little place. More nurses might ease the workload to some extent and greater professional recognition might lead to

greater decision latitude, but neither will address the fundamental ambiguities of nursing being at once hard physical labour, yet technical work requiring high levels of education, lower status than medicine, yet traditionally expected to provide the bulk of care broadly defined. In the United States, administrative and “learned professional” employees are not eligible to overtime. Changes to the definition of “learned professional” in the Fair Labor Standards Act allow the inclusion of nurses and other health occupations into this group and open the door for hospitals to cease paying for overtime (Lenahan, 2003:399). Professional status has a price. Nurses and the organizations that represent them must address such ambiguities and the nursing professions’ complicity with the medical and market structures that impose the difficult working conditions that lead to work stress for individuals.

Karasek and Theorell (1990:235-237) viewed union/management cooperation as being crucial to the success of job redesign and quality of work life programs. Given that much of the research and policy development relating to nurses’ work environment and professional status in the health care system has been written by nurses, it would be useful for industrial relations researchers to cast a more dispassionate eye upon the problems. The Canadian Policy Research Networks Discussion Paper on health care workplaces points out that little industrial relations research has been done (CPRN, 2002:12). This may be because of the tension between the notion of nurses being professionals and the need for collective bargaining with employers. The role of nursing associations as unions does not seem to be prominent in Canadian nursing policy papers. For example, the CHSRF policy paper provides recommendations to government, employers, educators and researchers, and professional associations and councils. However, the recommended actions for associations and councils include research, education, lobbying, advocacy, and “integrating healthy workplace principles into accreditation standards,” and do not include negotiating better working conditions in collective agreements.

The CPRN identifies four issues that urgently require industrial relations research: identifying the needs of part-time and contract health care workers; the impact of workplace change on employees, unions and professional associations; the costs and benefits of union participation in workplace change programs; and the role of unions in subsectors such as long-term care (CPRN, 2002:12).

The CPRN paper takes a human resources approach to health care staffing and work environment issues. The group involved in the roundtable discussions from which this paper emerged formulated recommendations in three areas:

broad public policy, unions and professional associations, and CEOs and management. Their recommendations stressed collaboration and accord between stakeholders, and comprehensive strategies for organizational change, injecting into the debate a “holistic” element that is lacking from contributions from individual stakeholder contributions (CPRN, 2002:vii-viii).

In the same vein, Hall et al. (2003:5) suggests that further research is needed into interprofessional teamwork in hospital settings (Hall et al., 2003:4); measuring organizational culture (the implicit values and assumptions of a group), climate (environmental perceptions of a group) and practice within the nursing context; defining a “gold standard” for nursing workload and quality-adjusted measures of productivity.

To summarize, hospitals have looked at ways of minimizing stress at the individual level and have tried to ease the effects of mergers and restructuring but have been hampered by lack of funds. Some provincial governments have responded to political pressure brought to bear by nursing associations by increasing funding for nursing positions in order to decrease workload. However, the stakeholders have yet to agree on solutions, and the provision of resources to implement solutions, to deal with questions of authority, management structure and the conflicted nature of the nursing profession itself.

¹ Almost and Laschinger (2002:410) studied acute care and primary care nurse practitioners. Acute care nurse practitioners were defined as “... registered nurses with an advanced practice certificate who have completed a master’s degree, work predominately in acute care hospital settings, and have the independent authority to perform additional medically controlled acts under medical directives or protocols developed in collaboration with a physician.”

² This research used the Maslach Burnout Inventory, which is a standardized tool to measure emotional exhaustion and the extent to which workers feel overwhelmed by their work (Aiken et al., 2001:46). The concept of “burnout” is commonly used in nursing literature and seems to encompass both Karasek’s concept of psychological demands and the experienced work stress outcomes of excessive demands.

³ Health status included physical functioning on daily tasks, role limitations due to physical health problems, bodily pain, vitality or the perceived level of energy and fatigue, social functioning, role limitations due to emotional problems, and mental health.

⁴ The concept of “job/nonjob” conflict was not clearly defined by the author; it could encompass role conflict, time pressures, interference with activities.

CONCLUSION

Karasek and Theorell's Demand-Control model of job strain which suggests that jobs with high psychological demands and low job control lead to job strain – the major component of work stress – finds support from large scale, cross-occupational research. While the research regarding the links between job strain and ill-health is inconclusive, there does seem to be support for links between job strain and absenteeism, job dissatisfaction and psychological distress. In the nursing profession, high levels of job strain are also related to absenteeism, job dissatisfaction and psychological distress, and there is slightly more evidence that ill health is related to work stress.

The position among the nurses and nursing associations is that job strain, and work stress more broadly, is one of the most pressing workplace issues. Dealing with life and death issues of patient care can be seen as being inherently stressful, but perspectives vary as to whether this is negative or a source of positive professional challenge. Staffing shortages and the resulting excessive workload is cited as the source of high demands and, in some cases, lower job control. Further, high physical demands and potentially dangers in the workplace were mentioned as contributing to nurses' overall incidence of high work stress.

In the 1990s, provincial governments sought to limit health care expenditures by overhauling their health care systems. Some of the measures employed to this end were the reduction of hospital budgets, organizational restructuring, and hospital mergers. Shrinking hospital budgets, entrenched medical hierarchies and disrupted organizational relations have made it difficult for hospital administrations to respond in meaningful, concrete ways to nurses' work environment concerns. Indeed, conditions during restructuring have been found to exacerbate work stress absent clear plans by management to overhaul work design and institutional hierarchies of authority.

Nursing associations and nursing researchers, on the other hand, have used the "health care crisis" to push forward an agenda of enlarging the nursing workforce, improving working conditions, and expanding nurses' scope of practice. The renewed growth of the number nurses employed in nursing since 2003 might be an indication of some success among employers and people with existing nursing qualifications. The low number of young people entering the profession is still a concern and suggests more work needs to be done in making nursing an attractive profession among this group.

Karasek and Theorell (1990:1) wrote: "Clearly, our models of modern industrial organization, designed to yield the greatest good for the greatest number, have omitted much that is important. These models appear to be forcing

us to trade off our psychological well-being for material affluence, instead of enhancing both.” This statement lies at the heart of my critique of the response of all stakeholders in the issue of nurses’ work stress, and particularly the singular lack of insight of nursing associations to the wider issues of the health care system. The contradictions that lie in such things as demanding more nursing positions while expecting hospital budgets to stretch to more support staff, demanding more medical and administrative authority while citing lack of opportunity to care for patients are indicative of the lack of definitional clarity in what it means to be a nurse in an equally contradictory social system of health, disease and medical treatment.

According to nursing groups many of the workplace problems that cause stress can be solved by injecting more money and resources into the system. The evidence for this assertion is not compelling – without challenging the medical, management, and economic assumptions that underlie the health care system currently, more money will merely produce more of the same. Given the evidence that nurses are often compelled to take on both routine tasks that don’t require their specialized skills and administrative tasks not directly related to patient care, one obvious solution to nurses’ excessive work demands is to minimize the amount of time nurses spend on such tasks. This may require spending more on support staff such as hospital porters, Licensed Practical Nurses, and ward clerks. Nurses would then be able to apply their skills as highly trained health care providers under fewer time constraints and conflicting demands.