Mapping Out the Territory

COMMENTARY

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ABSTRACT

This commentary is a response to the paper "Healthy Workplaces for Health Workers in Canada: Knowledge Transfer and Uptake in Policy and Practice," in which Shamian and El-Jardali describe completed research and policy directions to improve work-life practices and create healthy workplaces in the environments where health workers are employed. Two issues that are raised in the discussion are focused on, the first one being health of the workforce and the second concerning workload measurement and work overload. Evidence from two recently completed studies is provided to demonstrate the importance of monitoring the health of caregivers and the need for development of new workload measurement systems. Such progress requires large-scale studies to help us understand the correlates of staff satisfaction, staffing outcomes and workplace demands. Most importantly, evaluation of policy intervention in Canada has been limited; therefore, once fiscal and human resources are directed to policy initiatives, these actions need to be formally evaluated.

In recent years, issues relating to healthy workplaces have become a priority on the agenda of decision makers in government and employment institutions. In "Healthy Workplaces for Health Workers in Canada: Knowledge Transfer and Uptake in Policy and Practice," Shamian and El-Jardali astutely identify the major theme areas of research completed in Canada. The authors provide an account of how major reports have built on the research and led to policy directions to improve work-life practices and work environments for health workers. They have outlined the federal, provincial and territorial practices, policy uptake and implementation of strategies across the different levels of policy-makers. However, Canada-wide evaluation of policy intervention has been limited, and the authors are correct in indicating that once fiscal and human resources are directed to policy initiatives, these need to be formally evaluated. The paper by Shamian and El-Jardali highlights the advantage of engaging all the players (researchers; senior and junior government policy-makers from federal, provincial and territorial bodies; managers of health systems; front-line caregivers and unions) at the policy table. Involving the key players in the research review and the development of policy strategies is a necessary process to ensure successful action because the resulting policies will have been given the formal "sniff test" through representation of all the players in the health system. The Canadian Health Services Research Foundation (CHSRF) has fostered this approach for several years now, and Shamian and El-Jardali have demonstrated its utility in their paper.

The establishment of an Office of Nursing Policy within the federal government under Dr. Shamian's leadership was a necessary catalyst to directly inform senior decision makers, generate an understanding of the role of the federal government, spark enthusiasm for the health workforce issues and build a network to support funding for the Canadian Nurses Advisory Committee and other initiatives over time. The vision of the CHSRF added to the success of this committee.

In this commentary, I want to build upon the themes articulated by Shamian and El-Jardali by speaking to two important issues raised. The first issue is health of the workforce, and the second concerns workload measurement and work overload. While the examples I use are based on research with samples from the nursing population, the findings undoubtedly apply to other disciplines, given that similar issues exist.

In addition to the studies cited in Shamian and El-Jardali's paper and a special survey on the health of nurses that Statistics Canada released in mid-December (Statistics Canada 2006), two other recent unpublished studies also address the health of nurses using the SF-12 (Ware et al. 2002). In the first study of cardiac and cardiovascular nurses in five Ontario and one New Brunswick hospital, 35% of the nurses fell below the SF-12 US norm for females for physical health and 49% fell below the same norm for mental health. The predictors of poor physical and mental health relative to the workplace differed. The likelihood of being physically healthy increased by 58% when nurses were satisfied with their job and decreased by 28% for every 10% increase in registered nurse worked hours, probably because the increase in worked hours represented increased overtime rather than additional staff allocated to the unit. The likelihood of being mentally healthy increased by 74% when nurses were satisfied with their current job and decreased by 79% when nurses were at risk of emotional

exhaustion. About one-third of the nurses in the study sample reported emotional burnout (O'Brien-Pallas et al. 2004).

From the National Survey on the Work and Health of Nurses

31% said patients in their care had been injured in a fall.

Nearly **one in five** (18%) reported occasional or frequent medication errors among patients in their care.

http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_1588_E&cw_topic=1588

The second national study, which surveyed all three nursing occupational groups, was part of the research arm to inform the National Nursing Sector Study (O'Brien-Pallas et al. 2005). In this study, work environments were associated with nurses' physical and mental health. Nurses were less likely to be physically or mentally healthy when they worked involuntary overtime or preferred to reduce their work hours (from full time to part time or casual). Nurses were also less likely to be in good physical and mental health when there was violence at the workplace. Nurses who worked in direct care or anticipated job instability were less likely to be physically healthy than those in non-direct care or in stable working environments. Dimensions of practice and anticipation of job instability, however, had no effects on nurses' mental health. In contrast, frequent shift changes affected their mental, but not physical, health. Nurses who changed work shifts more than twice within two weeks were less healthy mentally than those who changed only once or did not change at all. The importance of rest breaks was supported in

that nurses who were able to take coffee and meal breaks reported better mental health than did nurses who missed breaks during their shifts (O'Brien-Pallas et al. 2005). The findings of both of these studies suggest that the predictors of physical and mental health or non-health encompass issues of workload and staffing and the work environment.

Secondly, I wish to speak to concerns about workload measurement and work overload. At national and provincial policy tables, there is continued debate about the inclusion of nursing workload in reporting and data-collection systems as recommended by the Canadian Nursing Advisory Committee report (2002). Some who question the validity of workload-measurement systems have suggested a return to nursing hours per patient-day or nurse-patient ratios as the measure of choice. Others propose that, although the old workload systems are no longer adequate, nursing hours per patient-day is an inappropriate measure of nursing resources because each patient is assumed to have standard requirements for nursing care despite significant research evidence (and clinician experience) to the contrary. Instead, the priority should be the development of next-generation workload-measurement systems that can be used in all settings by different care providers and that address (1) patient medical severity and complexity from a nursing perspective, (2) the characteristics of nurses, the work environment and the organization and (3) how these relate to outcomes for patients, nurses and the system. Currently, the inclusion of workload measurement as part of the new work environment standards developed by the Canadian Council of Health Care Accreditation remains unclear.

In the study of cardiac and cardiovascular nurses, patient, nurse and system outcomes declined as nursing units became

understaffed. Nurse staffing level was measured at the unit level as patient workload divided by nurse worked hours. Although this formula is the traditional definition of productivity for the Canadian Institute

be achieved by moderating productivity or utilization levels within a range of 85%, plus or minus 5% (O'Brien-Pallas et al. 2004). As we develop the next-generation workload systems, these types of parameters can be validated across a variety of settings and could serve as the mathematical estimates to be used when evaluating the workload.

Essentially, this study found that sustained utilization levels above 80% result in higher costs, poorer quality of care and deteriorated staff outcomes. Depending on performance goals, organizations may wish to target a specific unit utilization level shown in Table 1. These values are cumulative in nature, such that, if a unit works at a 92% utilization level, not only will lengths of stay be longer, all the other negative outcomes that occur with utilization values below 92% will apply (O'Brien-Pallas et al. 2004).

Table 1. Utilization and outcomes

Productivity or Utilization Level (%)	Outcomes
>91	Longer length of stay
>90	Higher costs per resource intensity weight
>88	Less improvement in patient health behaviour scores at discharge
>85	Higher nurse autonomy Deteriorated nurse relationships with physicians
>83	Higher intention to leave among nurses
>80	More nurse absenteeism Less improvement in patient physical health scores at discharge Less nurse job satisfaction

Adapted from O'Brien-Pallas et al. 2004.

of Health Information (CIHI), it is more accurately termed *a measure of utilization*. The utilization level is an index of how well a unit is staffed relative to patients' care needs. Consistent with the Management Information System (MIS) guidelines (CIHI 1999), the maximum work capacity (i.e., utilization) of any employee is 93% because 7% is allocated to paid breaks during which time no work is contractually expected. At 93%, nurses are working flat out with no flexibility to meet unanticipated demands or rapidly changing patient acuity. Specific utilization cut points were determined based on patient workload and nurse worked hours (Table 1; O'Brien-Pallas et al. 2004). This study demonstrated that significant benefits, both fiscal and human, can

Considering the iterative and unpredictable nature of the policy cycle and the influence and uptake of research, we need to realize that nothing stays forever on the radars and agendas of busy decision makers. We need to share our practical and empirical successes and to identify the areas in need of improvement to guide each dollar that policy-makers spend on managing the health workforce. We also need continued research to understand and improve the workplace, especially

well-designed and controlled intervention studies. Development and testing of new workload-measurement systems and also validation of other appropriate measures, if that is the desired future, should be undertaken. Ongoing monitoring of the health of nurses and other healthcare workers is necessary because research to date suggests that the health of nurses suffers as a result of workload, staffing and workplace issues. Large-scale studies will continue to help us understand the correlates of staff satisfaction, and positive outcomes from staffing, workload and workplace demands. Given our rapidly aging workforce, we need to understand and address generational differences in perceived and actual physical and mental health to ensure that we retain our health workforce in healthy and productive work environments.

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