Work Life and Patient Safety Culture in Canadian Healthcare: Connecting the Quality Dots Using National Accreditation Results

Jonathan I. Mitchell
Abstract
Fostering quality work life is paramount to building a strong patient safety culture in healthcare organizations. Data from two patient safety culture and work-life questionnaires used for Accreditation Canada’s national program were analyzed. Strong team leadership was reported in that units were doing a good job of identifying, assessing and managing risks to patients. Seventy-one percent of respondents gave their unit a positive overall grade on patient safety, and 79% of respondents felt that they could often do their best-quality work in their job. However, healthcare workers felt that they did not have enough time to do their jobs adequately and indicated that co-workers were cutting corners in patient care in order to save time. This article discusses engaging both senior leadership and the entire organization in the change process, ensuring supervisory support, and using performance measures to focus organizational efforts on key priorities all as improvement strategies relevant to these findings. These strategies can be used by organizations across sectors and jurisdictions and by healthcare leaders to positively affect work life and patient safety.

A culture focused on patient safety is widely recognized as a significant driver in changing behaviour to emphasize and increase safety within healthcare organizations (Kohn et al. 2000; McCarthy and Blumenthal 2006). A culture of safety creates an atmosphere of openness and mutual trust where staff members and health providers feel comfortable discussing and resolving safety problems (Institute for Healthcare Improvement 2009). In such a culture, staff and service providers demonstrate an awareness of safety issues and communicate freely with the goal of learning from errors and near misses, without fear of blame or punishment.

It is also widely recognized that the healthcare environment is one of the most difficult to work in owing to the physical and emotional nature of the work, the high risk of work-related injury, the challenging workload and work schedules and the high rate of change in the work environment (Shields 2006). Job design, occupational health and safety, learning and development opportunities, supportive supervision and leadership commitment to employees all contribute to the quality of work life. At the individual level, outcomes of quality of work life include job satisfaction, work-life balance, safety and individual health and wellness. Organizational-level impacts include absenteeism, grievances, employee commitment and employee retention.

While past research has examined the connection between the quality of work life and patient safety outcomes, the connection between the quality of work life and a patient safety culture remains unexplored. To contribute to this knowledge gap, Accreditation Canada used national accreditation results to better understand these concepts. This article builds on the findings presented in the Canadian Health Accreditation Report titled Through the Lens of Qmentum – Exploring the Connection between Patient Safety and Quality of Worklife (Accreditation Canada 2010).

Past Research
Baker et al. (2004) have argued that the work environment can improve patient safety and quality of care. In this way, gains in patient safety will come by modifying work environments, to prevent against adverse events and to mitigate their effects if they occur. Similarly, Shamian and El-Jardali (2007) have noted that the quality of healthcare work life has an overall effect on staff health and well-being, patient safety, organizational performance and quality of care. Across all health sectors and along the continuum of care, there is growing consensus that inter-professional and client-centred practice will lead to a number of positive outcomes, including better client care, improved patient safety and communication among healthcare providers, and increased satisfaction among clients and healthcare providers (see Quality Worklife–Quality Healthcare Collaborative [2007] for a review). Promoting a climate of health and safety, including workplace organizational factors, will improve the healthcare workplace and, as a result, patient safety (Yassi and Hancock 2005).

A consistent relationship has been shown between low staff satisfaction/burnout and adverse patient outcomes such as mortality (Aiken et al. 2002; Rafferty et al. 2007). An increased risk of adverse events has been tied to increased staff stress, which leads to fatigue (Tattersall et al. 1999). Nursing staffing levels have also been found to be inversely related to patient mortality and hospital lengths of stay (Aiken et al. 2002; Kane et al. 2007; Kazanjian et al. 2005; Lang et al. 2004). Work-life aspects such as teamwork, a multidisciplinary approach, staff training, skill mix and team stability have been identified as affecting the rates of nosocomial infections (Griffiths et al. 2009) as well as falls and medication errors (Sovie and Jawad 2001; Whitman et al. 2002).

Data Sources
Accreditation Canada is a not-for-profit, independent organization accredited by the International Society for Quality in Health Care. Through our accreditation process, we provide national and international health service organizations with the opportunity to assess their programs against standards of excellence. Since 1958, organizations have used the results to foster ongoing quality improvement in the services they provide to their patients and clients. As part of the Qmentum accreditation program, Accreditation Canada has introduced web-based survey instruments to measure patient safety culture and work
life. Through the Client Organization Portal, information is collected from each organization over the Internet, while maintaining data security and respondent confidentiality. Minimum response rates have been established based on the permanent staff complement in each organization to ensure sufficient response rates for representative sampling. A staff census approach is encouraged.

In 2009, Accreditation Canada used the 2007 Modified Stanford Instrument (MSI), referred to as Accreditation Canada’s Patient Safety Culture Tool. Ginsburg et al. (2009), the researchers who developed and validated this tool for the Canadian healthcare environment, have suggested that there are underlying dimensions of a patient safety culture, including senior leadership support for safety (valuing safety), supervisory leadership for safety, threats to safety, fear of repercussions, learning responses, reporting culture and learning culture (see http://www.yorku.ca/patient-safety for a complete review).

Accreditation Canada’s Worklife Pulse survey helps organizations to identify trends, strengths and opportunities for improvement in their work environments, to plan appropriate interventions to improve the quality of work life and to develop a clearer understanding of how the quality of work life influences an organization’s capacity to meet its strategic goals. The survey takes the “pulse” of the quality of work life, providing a quick and high-level snapshot of key work environment factors, individual outcomes and organizational outcomes. The Worklife Pulse Tool was developed by Accreditation Canada in collaboration with the Ontario Hospital Association and builds on the earlier Healthy Hospital Employee Survey that was developed in partnership by Brock University’s Workplace Health Research Unit and the Ontario Hospital Association (Lowe 2006; Yardley and Noka 2005). Due to its focus, the limited number of questions and the quick turnaround of results, this survey complements more detailed employee satisfaction surveys that health care organizations administer.

In 2009, Accreditation Canada’s Patient Safety Culture Tool was completed by 35,901 respondents and Accreditation Canada’s Worklife Pulse Tool was completed by 35,594 respondents. These tools were administered by each organization separately and likely at different points in time. The profile of the respondents was very similar for both questionnaires and is shown in Table 1 for the Worklife Pulse Tool. Twenty-six percent of respondents indicated they were nursing staff, 21% provided support services or clerical support and 20% were personal support workers. One percent indicated that they were physicians, and 7% were management.

### Results

#### Patient Safety Culture

Questionnaire items were rated by respondents on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The patient safety culture survey results were analyzed to determine areas of strength and of improvement across Canada. Little variation was found by Canadian region or sector, indicating that these more general results held true across Canada and across the care continuum.

After negatively worded items were accounted for, top strengths were identified based on highest mean scores. As shown in Table 2, top strengths identified in the results were that healthcare providers took responsibility and reported mistakes that could otherwise go unnoticed (overall mean of 1.61; item was negatively worded), and providers considered that asking for help when needed was not a sign of incompetence (overall mean of 1.65; item was negatively worded). Reporting mistakes and asking for help are behaviors that can be influenced by staff members’ fear of repercussions. Generally, healthcare providers did not fear repercussions from reporting mistakes or asking for help, which are positive signals and important building blocks of a strong patient safety culture.

Unit leadership was shown to be a key driver in creating a strong patient safety culture. Respondents indicated that units were successfully identifying and assessing risks (overall mean of 4.13) as well as managing risks (overall mean of 4.22). Across Canada, both by region and by sector, healthcare providers noted that patient safety is a high priority in their work environments (overall mean of 4.11). Based on the research underlying the MSI, Ginsburg and colleagues (2009) have noted that this is indicative of senior leadership support for safety.

While overall patient safety culture results indicated that there was a strong patient safety culture in Canadian healthcare organizations, top opportunities for improvement were also identified based on lowest mean scores after negatively worded items were accounted for. As shown in Table 3, the

<table>
<thead>
<tr>
<th>Gender</th>
<th>Respondents (%)</th>
<th>Age in Years</th>
<th>Respondents (%)</th>
<th>Organizational Tenure in Years</th>
<th>Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>13</td>
<td>&lt;30</td>
<td>14</td>
<td>&lt;1</td>
<td>10</td>
</tr>
<tr>
<td>Female</td>
<td>87</td>
<td>31–40</td>
<td>22</td>
<td>1–2</td>
<td>12</td>
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<tr>
<td></td>
<td></td>
<td>41–50</td>
<td>33</td>
<td>3–5</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51–60</td>
<td>26</td>
<td>6–10</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;60</td>
<td>5</td>
<td>11–19</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;20</td>
<td></td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 1.

Breakdown of respondents by gender, age and organizational tenure
neutral scores indicate that improvement can be achieved in a couple of key areas. Among the opportunities for improvement identified in the results were unreported errors (overall mean of 3.32) and co-workers cutting corners in patient care in order to save time (overall mean of 3.14). These are classified as “threats to safety” (Ginsburg et al. 2009). Healthcare providers also did not generally feel that they would be rewarded for taking action to identify a serious mistake (overall mean of 3.11); this is part of the unit role in providing supervisory support for safety. Interestingly, while the regular reporting of errors by individual staff members was shown to be occurring, there continued to be a shared perception among survey respondents that healthcare errors often go unreported.

**Work Life**

The work environment was evaluated on a number of aspects including communication, supervision, learning, involvement in decision-making, safety and work-life balance. Top strengths and areas of improvement across Canada were also identified based on mean item scores. As shown in Table 4, questionnaire items were rated by respondents on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5) unless otherwise indicated.

Three work environment aspects had the most positive mean scores: job clarity (overall mean of 4.08), satisfaction with supervisors (overall mean of 3.80) and a safe environment (overall mean of 3.76). The most highly rated individual outcome was job satisfaction (overall mean of 1.77 on a four-point scale of very satisfied to not at all satisfied), and the most positive mean scores for organizational outcomes were for staff feeling able to do their best-quality work in their job (overall mean of 4.04 on a five-point scale of never to always) and satisfaction with the organization (overall mean of 3.59). Little variation was found by Canadian region or sector for any of these strengths,
indicating that these more general results held true across Canada and the care continuum.

Three work environment aspects had the lowest ratings: the ability to do the job required in the time provided (overall mean of 3.15), communication within the organization (overall mean of 3.30) and involvement in decision-making (overall mean of 3.31). A noteworthy individual outcome that scored low was that healthcare providers indicated that most days at work over the past year were relatively stressful (overall mean of 3.23 on a five-point scale of not at all stressful to extremely stressful).

Global Measures of Patient Safety Culture and Work Life
Both questionnaires contained more global questions pointing to respondents’ overall assessment of patient safety culture and work life. Responses to summary questions on these aspects were examined to gain an overall picture of patient safety culture and work life in Canadian healthcare organizations.

As noted previously, the questionnaires on patient safety culture and work life were administered at different points in time and possibly by different staff members in the same organizations. Therefore, investigating a direct relationship between variables of work life and patient safety culture could not be pursued. However, given the large sample size and the fact that most of the respondents were from healthcare organizations that completed both questionnaires (as expected, based on accreditation program requirements), the global work-life and patient safety culture results of healthcare organizations that had completed both questionnaires were further investigated. Using these criteria, eight respondents were removed from the patient safety culture sample for a total of 35,893 respondents, and six respondents were removed from the work-life sample for a total of 35,588 respondents.

For the patient safety culture questionnaire, a positive overall grade on patient safety for the unit was operationalized as a response of A (for “excellent”) or B (“very good”) to the question, “Please give your unit an overall grade on patient safety,” based on a five-point scale from A ("excellent") to F ("failing"). A positive overall grade on patient safety for the organization was operationalized as a response of A or B to the question, “Please give your organization an overall grade on patient safety,” based on the same five-point scale. For the work-life questionnaire, often doing the best-quality work in the job was operationalized as a response of “often” or “always” to the question, “How often do you feel you can do your best-quality work in your job?” based on a five-point scale from “never” to “always.” Overall satisfaction with the organization was operationalized as a positive response to the question, “Overall, I am satisfied with this organization,” based on a five-point Likert scale from “strongly disagree” to “strongly agree.”

In this robust sample of Canadian healthcare organizations, 71% (25,588 of 35,893 respondents) gave their unit a positive overall grade on patient safety and 62% (22,097 of 35,893 respondents) gave their organization a positive overall grade on patient safety. At these same Canadian healthcare organizations, 79% (28,043 of 35,588 respondents) felt they could often do the best-quality work in their job and 63% (22,285 out of 35,588 respondents) were satisfied with their organization overall.

General Implications
Based on the work-life and patient safety results presented, healthcare professionals and staff play a central role in creating a safe environment and delivering high-quality care to patients. In this way, a strong sense of individual responsibility and professional practice positively impacts the work environment. The results indicating that healthcare workers felt their work environment was safe all point to the high priority placed on safety in Canadian healthcare organizations, which benefits healthcare workers and their clients. Healthcare providers across Canada reflected that patient safety was a high priority in their work environments, further reinforcing this finding and highlighting positive senior leadership support for safety. Lower ratings related to organizational communication and decision-making involvement may be areas where senior leadership should focus their efforts going forward to maximize support from all staff members.

Fostering quality work life is paramount to building a strong patient safety culture.

Fostering quality work life for all those working within organizations (whether community or institution based) is paramount to building a strong patient safety culture in Canadian healthcare organizations. Team leadership was shown to be one of the key drivers of quality work life and patient safety culture in the work environment. This may in part explain why healthcare workers indicated that they were clear about what was expected of them in their job. Strong team leadership was also reflected in the patient safety culture strengths, namely that units were doing a good job of identifying, assessing and managing risks to patients. Aspects of the work environment that were highlighted for improvement were also directly related to the patient safety culture results. Healthcare workers identified that they experienced stress in their job, identifying typical days at work being more than a bit stressful. Noted as the lowest-rated aspect of the work environment, healthcare workers were not in agreement that they had enough time to do their jobs adequately. This aspect of work life has a significant patient safety impact in that one of the threats to safety is co-workers cutting corners in patient care in order to save time. It is clear that health-
care providers need additional support from supervisors and require the necessary time to deliver high-quality patient care. Furthermore, staff members need to be encouraged and rewarded by their supervisors for taking quick action to identify serious mistakes and for reporting errors in a non-punitive environment. This will ensure that errors are quickly identified, remedied and prevented in the future.

Results from organizations that completed both the Worklife Pulse Tool and Patient Safety Culture Tool reflect both a strong quality of work life and patient safety culture in Canadian healthcare organizations. As the current study used questionnaires administered at different points in time as part of the accreditation program requirements, a direction for future research would be to evaluate work life and patient safety culture in the same questionnaire, thus allowing more direct relationships among variables to be drawn.

**Implications and Improvement Strategies for Organizations and Healthcare Leaders**

The connections between quality of work life and patient safety culture reveal a number of important themes that can be applied by healthcare organizations, across sectors and jurisdictions, and by healthcare leaders. These themes are discussed below.

**Work Life and Patient Safety Are Linked**

The stressful work environment in healthcare and the particular feeling of not having enough time to deliver high-quality patient care both lead to patient safety risks. While staff members strive to perform their duties as best they can, corners are cut in patient care to save time. Healthcare organizations are encouraged to monitor these situations at a team level as inattention to work life warning signals impacts on patient safety.

**Board and Senior Leadership Involvement Promotes Change**

The involvement of the board and senior leadership is critical to creating an environment focused on patient safety and quality of work life. The engagement of senior leaders also serves to “set the tone” and builds a strong culture of patient safety throughout the organization, where all teams work together to identify risks and prevent errors from occurring. Support from the governing body and senior leadership is needed to address issues such as

### TABLE 4.

**Selected sector results from Accreditation Canada’s Worklife Pulse Tool**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Response Scale</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with communication in this organization</td>
<td></td>
<td>3.30</td>
</tr>
<tr>
<td>I am satisfied with my supervisor</td>
<td></td>
<td>3.81</td>
</tr>
<tr>
<td>I am clear about what is expected of me to do my job</td>
<td></td>
<td>4.09</td>
</tr>
<tr>
<td>I am satisfied with my involvement in decision-making processes in this organization</td>
<td>1 = strongly disagree to 5 = strongly agree</td>
<td>3.30</td>
</tr>
<tr>
<td>I have enough time to do my job adequately</td>
<td></td>
<td>3.13</td>
</tr>
<tr>
<td>My work environment is safe</td>
<td></td>
<td>3.76</td>
</tr>
<tr>
<td>In the past 12 months, I would say that most days at work were ...</td>
<td>1 = not at all stressful to 5 = extremely stressful</td>
<td>3.24</td>
</tr>
<tr>
<td>How satisfied are you with your job?</td>
<td>1 = very satisfied to 4 = not at all satisfied</td>
<td>1.77</td>
</tr>
<tr>
<td>How often do you feel you can do your best quality work in your job?</td>
<td>1 = never to 5 = always</td>
<td>4.03</td>
</tr>
<tr>
<td>Overall, I am satisfied with this organization</td>
<td>1 = strongly disagree to 5 = strongly agree</td>
<td>3.59</td>
</tr>
</tbody>
</table>

CSSS = Centres de Santé et de Services Sociaux (Quebec’s Health and Social Services Centres); RHA = regional health authority.
the non-reporting of errors and taking shortcuts to save time. Leadership support is critical to focusing organizational efforts on key priorities. For example, implementing change to address job demand issues such as having enough time to do one’s job adequately would address staff cutting corners in patient care to save time. For an organization, the selection of carefully chosen priorities is likely to lead to improved outcomes – in relation to the delivery of service, patient safety and quality of work life. Leadership plays a crucial role in fostering quality and safety in an organization. A focus of healthcare leadership on safety has benefits not only for patient safety but also for improved quality of staff work life.

**Engage the Entire Organization**

Improvements in patient safety demand complex system-wide approaches (World Health Organization 2009). While the governing body and senior leadership team must be actively engaged in this organizational response, patient and families should also be included in the improvement team as active partners. Engaging senior leaders, patients, families, administrators and medical staff also serves to build a strong organizational culture of patient safety. An environment that is safe for patients, physically and psychologically, is also an environment that is safe for staff.

**An environment that is safe for patients is also an environment that is safe for staff.**

**Ensure Support from Supervisors**

Strong leadership is fundamental to the success of a unit or team as members and their leaders all become involved in implementing organization-wide patient safety initiatives, such as educating clients and families about their roles in promoting safety, preventing falls and reconciling medications. Healthcare workers require support from supervisors to successfully manage safety risks. Staff members must have adequate time to deliver high-quality care, as well as support and encouragement from their supervisors when they take quick action to prevent serious mistakes. This is especially important to ensure that all risks are identified in a blame-free environment, remedied and not repeated. By being supportive of staff and actively involved in mitigating risks, supervisors promote and strengthen the quality of work life and the patient safety culture. Appropriate behaviour needs to be encouraged by supervisors; in this way, a patient safety culture can be promoted and strengthened.

**Measurement Is Key**

For organizations to improve upon the specific challenges identified, further information about performance in specific institutions, sites and programs is needed. For example, when an organization sets out to reduce the number of client falls, measurement of existing practices is critical in understanding where the gaps are and to determine what improvements need to be made. The importance of measurement cannot be overstated in focusing organizational efforts on key priorities. Performance measures or indicators guide the improvement process and allow the organization to monitor progress across programs, services and sectors and to work toward established quality improvement goals. The Accreditation Canada Patient Safety Culture and Worklife Pulse Tools can be deployed as often as an organization chooses, to all staff or to particular groups or sites, to measure staff perception and to diagnose specific opportunities for improvement.

**The importance of measurement cannot be overstated.**

**Focus Organizational Efforts on Key Priorities**

Performance measures and organizational comparative information and metrics provide detailed information that can contribute to informed decision-making. This information is also useful to direct human and financial resources to areas that require support and to meet organizational goals. Key organizational metrics aid in focusing staff on priorities. For example, in implementing medication reconciliation, an organizational action plan can be created based on organization-specific priority areas or risk factors, such as the number of patients served, or the area of least progress toward implementation as revealed by an organization-wide performance measure.

Implementing change to address job demand will likely also address staff taking shortcuts in patient care to save time. In this way, the selection of carefully chosen organizational priorities will lead to improved results in a number of areas, while also preventing a cumulative burden of change initiatives that can be overwhelming to staff.

**Uncover Unreported Errors**

Unreported errors still occur and are a significant threat to patient safety. Quality improvement plans and solutions can only be developed if patient safety errors are identified and reported by staff members without fear of repercussions. Senior leaders, team leaders and healthcare workers must work together so that patient safety risks can be properly addressed and further minimized. In the same way, the identification of near misses provides value in terms of education and celebrating teamwork.

**Conclusion**

Improving the quality of work life and patient safety culture, in turn, enhances safety in Canadian healthcare organizations.
Engaging leadership in the change process, ensuring supervisory support and using performance measures for quality improvement are but some of the tools for organizations and leaders to positively affect work life and patient safety culture. In partnership with healthcare organizations, quality councils and many other partners and stakeholders, Accreditation Canada will continue to drive quality improvement, patient safety and quality work life through accreditation by delivering training, sharing leading practices and resources and introducing content into the accreditation program where serious risks exist. Recently introduced required organizational practices for workplace violence prevention, home safety risk assessment for home care and the usage of a safe surgical checklist are examples of our ongoing commitment to quality improvement.

Acknowledgements

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References


