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Exploring Worklife Issues in Provincial Correctional Settings

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MAIN MESSAGES

The role of correctional nurses in provincial facilities in Ontario encompasses all aspects of nursing practice, including medication administration, provision of treatments such as dressing changes, health counseling, management of mental health and addiction concerns, comprehensive health assessment, emergency care, infection control, and collaborating with other health professionals. The breadth of scope is both a challenge and attraction for nurses working in this sector. The challenge relates to skill development. A solid knowledge and expertise is needed to optimize nursing practice and scope of practice within these settings. However, due to heavy workloads, lack of time and inadequate staffing, nurses are not always able to obtain the training or ongoing education that is required for their broad scopes of practice. Educational and policy initiatives are needed to provide opportunities for correctional nurses to increase their capacity to practice to their full scope of practice.

Nurses working in provincial correctional settings value work environments that provide support for education, have positive relationships, support clinical autonomy, control over nursing practice, have adequate staffing, and supportive leadership. However, participants in this study identified several key issues within their work environment including inadequate staffing and heavy workload, limited control over practice and scope of practice, limited resources, and challenging workplace relationships. Work environment interventions are needed to address these issues and, subsequently, increase job satisfaction, prevent burnout, job tension and role overload.

Recruitment strategies need to be publicized, target local communities where nurses live, and reach out to nursing programs to attract new graduates. Retention strategies include promoting good leadership, ensuring good communication, establishing attractive and competitive salary and benefit structures, creating opportunities for educational leaves, improving orientation for new nurses, and fostering effective teamwork.

EXECUTIVE SUMMARY

Correctional nurses hold a unique position within the nursing profession as their role and work environment combines the demands of two systems, corrections and health care. Approximately 500 nurses work in Ontario's provincial correctional system caring for almost 9,000 people (Moncrieff, 2010). However, the role of the correctional nurse has received little attention in nursing research in Canada. Our study aimed to describe the role and work environment of provincial correctional nurses in Ontario, including their workplace environmental concerns, the impact of this work environment on nurse outcomes and generate evidence about strategies for recruiting and retaining nurses in this unique sector.

A mixed methods research design was used in this study. The first phase of the study involved 17 semi-structured interviews with correctional nurses, health care managers (HCM) and superintendents in five provincial correctional facilities, detention centres and jails in Ontario. The second phase of study involved a survey of all (n=511) eligible correctional nurses and HCMs in the 30 provincial correctional facilities, detention centres and jails across Ontario. All nurses and HCMs were asked to complete a survey asking questions about their role and work environment. Nurses working in provincial correctional facilities in Ontario are similar in age to other nurses working in Ontario (College of Nurses of Ontario, 2009). However nurses in correctional settings are more experienced, have a higher percentage of males, and a lower percentage of full-time nurses than the general Ontario population.

Key Findings

Role of Provincial Correctional Nurses in Ontario

Correctional nurses work independently in a fast-paced environment with a challenging clientele. The role of provincial correctional nurses encompasses all aspects of nursing practice, including medication administration, provision of treatments such as dressing changes, health counseling, management of mental health and addiction concerns, comprehensive health assessment, emergency care, infection control, and collaborating with other health professionals. The complex health needs of inmates require nurses with specialized knowledge and skill.

Workplace environmental concerns

Participants in this study identified several key issues within their work environment, including:

1. *Inadequate staffing and heavy workloads.* Participants who worked full-time reported a higher amount of paid overtime than the general nursing population in the National Survey of the Work and Health of Nurses (NSWHN) (Shields, 2006). In this study, HCMs reported an even higher amount of paid and unpaid overtime than RN/RPNs. Overall, 36% of nurses and 48% of HCMs reported an inadequate staffing level.
2. *Limited control over practice and scope of practice.* Participants reported having some autonomy in their work but limited control over their practice. Close to 40% of correctional nurses reported that they were unable to practice to their full scope of practice due to the work environment.

3. *Limited resources.* Participants reported limited access to resources, such as having enough time to do paperwork and accomplish job requirements, as well as having limited access to equipment, technology, and educational support.
4. *Challenging workplace relationships.* It is alarming to note that a higher percentage of correctional nurses reported experiencing emotional abuse than general duty nurses in the NSWHN (Shields, 2006). Similarly, the levels of conflict were higher than those previously found in acute care settings (Almost, 2010) and a high percentage of participants reported that they had been the subject of bullying during the past year. The main sources of conflict and bullying were correctional officers and nursing colleagues. Intragroup conflict was a significant predictor of job tension, burnout, and intent to leave.

Impact of Work Environment on Nurse Outcomes

This study explored correctional nurses' job satisfaction, stress and burnout.

- *Job satisfaction.* The majority (72%) of correctional nurses were satisfied with their jobs. However a little over a quarter reported feeling dissatisfied with their current job, which is greater than the NSWHN (Shields, 2006). Factors that predicted job satisfaction were the nursing role, access to resources, control over practice, autonomy, and respect.
- *Job stress and burnout.* HCMs reported higher levels of role tension, role overload and burnout than nurses. In this study, approximately 68% of HCMs and 39% of RN/RPNs had scores indicative of high burnout. Factors that predicted nurse burnout were the manager role, limited access to resources, control over practice, and autonomy, as well as higher levels of intragroup conflict.

Strategies for Recruitment and Retention

In the nurses' view, the most effective recruitment strategies were personal referrals and strategies directed to specific target audiences, such as local communities. Reaching out to university/college programs to raise awareness of correctional nursing was suggested as a strategy for recruiting new graduates. Addressing worklife issues were seen as both a recruitment and retention strategy. Retention strategies that were suggested included promoting good leadership, ensuring good communication, establishing attractive and competitive salary and benefit structures, creating opportunities for educational leaves, improving orientation for new nurses, and fostering effective teamwork.

Conclusions

It was noteworthy that 72% of participants were satisfied with their job and 81% were planning to remain working in corrections. Nevertheless, worklife issues were identified that need to be addressed in order to strengthen the professional practice environment, attract nurses, retain them, and address role overload and burnout for nurses working in leadership roles.

Recommendations

1. Work environment interventions are needed to create healthy work environments and workplace relationships and, subsequently, increase job satisfaction, prevent burnout, job tension and role overload. These interventions need to address inadequate staffing and heavy workload, limited control over practice and scope of practice, limited resources, and challenging workplace relationships.

2. The complex health needs of inmates require nurses with specialized knowledge and skill. Nurses need strong assessment skills and clinical decision-making skills to help them interact professionally with a challenging clientele who need health care. Educational and policy initiatives are needed to provide opportunities for correctional nurses to increase their capacity to practice to full scope of practice.
3. Recruitment strategies need to be publicized, target local communities where nurses live, and reach out to nursing programs to attract new graduates.

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Chapter 1: STUDY OVERVIEW

Background

Correctional nurses hold a unique position within the nursing profession as their role and work environment combines the demands of two systems, corrections and health care. While the delivery of healthcare is an important component of the correctional facility, the fundamental mission is first and foremost public safety and security. Health care is provided to a wide variety of inmates, therefore nurses working within confined, secure settings must be constantly aware of security issues and ensure that adequate, non-biased care is provided regardless of an inmate's history (Weiskopf, 2005). However, nurses are often expected to work with insufficient staffing, inadequate facilities, equipment and supplies in environments that are overcrowded and potentially unsafe (Droes, 1994). The impact of this type of work environment on the role of the correctional nurse has never been studied in Canada. Therefore, the purpose of this study was to examine the role and work environment of correctional nurses working in provincial facilities within Ontario. With the aging nursing population and current nursing shortage, the results from this study are imperative to the recruitment and retention of correctional nurses.

Nurses are the primary health care providers in correctional facilities. Their duties include education, physical examinations, medication distribution, counseling, health screening, postoperative care, and detoxifications (Flanagan & Flanagan, 2002). One of the main reasons nurses choose to practice correctional nursing is the professional autonomy of the role (Smith, 2005). In addition, some of the main determinants of job satisfaction are pay and autonomy, followed by professional status and quality of work interactions (Flanagan & Flanagan, 2002). Correctional nurses face a number of challenges and stressors in their work (Droes, 1994; Flanagan, 2006; Weiskopf, 2005). The limits of the strict nurse-inmate boundaries (Flanagan, 2006) and different assumptions of the value of health care (Watson, Stimpson, & Hostick, 2004) can lead to stress and frustration for nurses when trying to advocate for proper health care (Weiskopf, 2005). Other reported sources of stress include exposure to infectious diseases, feeling unsupported by organizational superiors, feeling unsafe, time pressures, security constraints, and role ambiguity (Flanagan, 2006; Flanagan & Flanagan, 2002; Happel, Martin & Pinikahan, 2003).

Theoretical Perspective

The theoretical perspective providing a framework for this study was an extension of the magnet concept studied by Aiken and colleagues (Aiken, Clarke, Sloane, Sochalski, et al., 2001; Aiken, Clarke, Sloane, Sochalski, & Silber, 2002). While the majority of research examining the magnet concept has been conducted with hospital nurses, this study used the same concept to allow a comparison between correctional and hospital settings. Research has shown that nurses are attracted to work environments promoting autonomy and control over practice environment and fostering good workplace relationships (Scott, Sochalski, & Aiken, 1999). When nurses have more autonomy to practice their profession and make decisions they have been educated to make, when they control the resources that need to be brought together for effective care, and when they have trusting professional relationships, better outcomes for clients and nurses result (Aiken,

1995). Nurses working in magnet organizations report higher levels of job satisfaction (Aiken, Havens, & Sloane, 2000) and lower levels of burnout (Aiken & Patrician, 2000).

Study Objectives

This study provided an in-depth examination of the work environment within provincial correctional facilities. More specifically, the study answered the following objectives and research questions:

Objective 1: Describe the role of nurses working in provincial correctional facilities in Ontario.

Three questions were proposed to address the first study objective.

- 1.1 What are the demographic characteristics of correctional nurses?
- 1.2 What are the role responsibilities and challenges for nurses in these settings?
- 1.3 What professional group (within nursing and outside of nursing) do correctional nurses identify with?

Objective 2: Evaluate the factors that influence the recruitment and retention of correctional nurses.

Three questions were proposed to address the second study objective.

- 1.1 What are the workplace environmental concerns voiced by nurses in correctional settings?
- 1.2 What factors influence the recruitment and retention of correctional nurses?
- 1.3 What structures and resources within correctional settings support nursing practice and positively influence the quality of nurses' work life?

Objective 3: Examine correctional nurses' perceptions of their work environment and subsequently, the impact of this work environment on their job satisfaction, job stress and burnout.

Three questions were proposed to address the third study objective.

- 3.1 How satisfied are nurses working in correctional settings and what factor influence job satisfaction?
- 3.2 How stressed are nurses working in correctional settings and what factors influence their stress levels?
- 3.3 How burned out are nurses working in correctional settings and what factors influence their burnout levels?

Chapter 2: STUDY DESIGN

Design

The research design used for this study was a mixed method design with semi-structured interviews and survey methods.

Setting and Sample

Semi-Structured Interviews. A random sample of five provincial facilities was selected to participate in the semi-structured interviews. To obtain a sample representative of the population, varying sites were chosen based on facility size (small, medium, or large) and location in the province (urban versus rural). Eligible participants included all registered nurses (RNs), registered practical nurses (RPNs), Health Care Managers (HCMs) and Superintendents working in these five facilities. A total of eight RN/RPNs, five HCMs and four Superintendents participated in the interviews.

Survey Data. All nurses working in the 30 provincial correctional facilities, detention centres and jails across Ontario were asked to complete a survey. Eligible study participants were all registered nurses, registered practical nurses, and Health Care Managers working in these settings. A total of 481 RNs and RPNs and 30 HCMs met the eligibility criteria. The final sample consisted of 270 RN/RPNs and 27 HCMs who returned completed surveys, giving a response rate of 56.1% and 90.0% respectively.

Data Collection Procedure

Semi-Structured Interviews. The interviews were conducted face-to-face by the Project Coordinator and Research Assistant at each of the five facilities. Participants were asked to describe: 1) the role, responsibilities and challenges, 2) professional support, 3) work environment issues, 4) suggestions to improve the work environment, 5) sources of job satisfaction, 6) impact of work on their home life, 7) recruitment and retention initiatives, and 8) reasons for choosing correctional nursing and remaining in this setting. The interviews were tape-recorded and transcribed verbatim.

Survey Data. Each eligible participant received a survey package containing a letter of information, the questionnaire and a researcher-addressed, stamped envelope to be returned to the Lawrence S. Bloomberg Faculty of Nursing at the University of Toronto. The letter of information explained the study purpose, participant's confidentiality, and researcher contact information. As suggested by Dillman (2007), a follow-up reminder letter was sent to non-respondents three weeks after the initial mailing, followed by a final mailing three weeks later with a follow-up letter, replacement questionnaire, and return envelope. Each questionnaire was coded to enable follow-up with non-respondents only. Participants were assured that their responses were confidential and code numbers were used only for follow-up purposes. The list of study variables and instruments is outlined in Table 1.

Table 1: Study Variables and Instruments

	Construct	Variable	Instrument
Work Environment	Practice Environment	Control over practice	Nursing Work Index-Revised (NWI-R) (Aiken & Patrician, 2000)
		Autonomy	
		Collaboration - physicians	
		Collaboration - support staff	
		Collaboration - RN/RPNs	
		Collaboration - correctional officers	Adapted from NWI-R (Aiken & Patrician, 2000)
		Safe environment	Developed by authors
		Access to resources	Subscale from Conditions of Work Effectiveness Questionnaire (Laschinger, 1996)
		Adequacy in staffing	National Survey of the Work and Health of Nurses (NSWHN) (Shields, 2006)
	Workplace Relationships	Intragroup conflict	Adapted from Intragroup Conflict Scale (Cox, 2008)
		Bullying	Adapted from Negative Act Questionnaire (Einarsen & Skogstad, 1996)
		Physical/Emotional abuse	NSWHN (Shields, 2006)
Respect		Esteem subscale from Effort-reward Imbalance Scale (Siegrist, 1996)	
Job Characteristics	Hours worked	Ontario RN Survey of Hospital Characteristics (Aiken et al., 2001)	
	Overtime		
	Professional background supervisor		
	Scope of practice	Developed by authors	
Outcomes	Burnout	Emotional exhaustion	Maslach Burnout Inventory – Human Services Survey (MBI-HSS) (Maslach & Jackson, 1986)
		Depersonalization	
		Personal accomplishment	
	Job Satisfaction	Enjoyment	Nurses Job Satisfaction Scale (NJSS) (Hinshaw & Atwood, 1983)
		Time to do job	
		Quality of care	
		Salary and benefits	Two subscales from McCloskey/Mueller Satisfaction Scale (MMSS)
		Scheduling	
		Global	Ontario RN Survey of Hospital Characteristics (Aiken et al., 2001)
	Job Stress	Job tension	Job Tension Index (Lyons, 1971)
		Role overload	NSWHN (Shields, 2006)
	Intent to Leave		Ontario RN Survey of Hospital Characteristics (Aiken et al., 2001)

Measures

Nursing Work Index-Revised (NWI-R)

Organizational attributes of the work setting were measured by the Nursing Work Index-Revised (NWI-R) (Aiken & Patrician, 2000) used by Aiken and colleagues in their magnet hospital research. Three subscales were derived from the NWI-R to measure three of the organizational attributes noted in the literature as characterizing an environment supportive of professional nursing practice: autonomy, control over the work environment, and collaboration with physicians. Two single items from the NWI-R were used to ask about collaboration with support staff and collaboration between RN/RPNs. Collaboration with correctional officers was measured using 3-items. These items were modified from the NWI-R items measuring nurse-physician collaboration. The words correctional officers were substituted for physician. All items were rated on a 4-point Likert scale (strongly disagree to strongly agree) which were summed and averaged to yield the subscales. A higher score indicates an environment that is supportive of professional nursing practice. The NWI-R has been used in multiple studies and consistently demonstrated acceptable internal consistency reliability (Aiken, Havens & Sloane, 2000; Aiken & Patrician, 2000). In this study, the Cronbach alphas ranged from .75 to .87.

Working in a Safe Environment

One new item was developed by the research team to measure participants' perception of how safe they feel in their work environment. The item was rated on a 4-point Likert scale (strongly disagree to strongly agree) with higher scores representing a safe work environment.

Access to Resources

Eight items from the Resource Subscale of the Conditions of Work Effectiveness Questionnaire (Laschinger, 1996) were used to measure respondents' perceptions of their access to resources, one of Kanter's (1977) six elements of structural empowerment. Items were rated on a 5-point Likert scale (none to a lot) with high scores representing higher access to resources. Cronbach alpha reliabilities in previous studies ranged from .79 to .82. In this study, the Cronbach alpha was .80.

Adequacy in Staffing

Adequacy in staffing was measured by a single self-report item, "During your last shift, do you think the staffing level was adequate?" with a yes/no response choice. This item was used in the Ontario Registered Nurse Survey of Hospital Characteristics, which was part of the International Study of Nurse and Patient Outcomes (Aiken et al., 2001).

Intragroup Conflict

Task conflict (5-items) and relationship conflict (8-items) were measured using items taken from the Intragroup Conflict Scale (ICS) (Cox, 2008). The ICS incorporates three content areas generally associated with conflict: disagreement, interference, and negative emotion. One additional item was added to assess the respondents' perception of overall conflict in their workplace. Items were rated on a 5-point Likert scale (never to always) then summed and averaged to yield the subscales. High scores represent higher levels of conflict. In this study, the Cronbach alpha ranged from 0.92 to 0.93.

Bullying and Abuse

Exposure to bullying at work was measured using three modified items originally developed by Einarsen and Skogstad (1996). Modifications were made so that the items would be similar to the existing questions from the Aiken study. Respondents' experiences with physical and emotional abuse from inmates or others were measured using three items from the National Survey on the Work and Health of Nurses (NSWHN) (Shields, 2006).

Respect

Respect was measured using three items from Siegrist's (1996) Esteem Subscale from the Effort-Reward Imbalance Scale. Participants were asked to rate their level of agreement regarding their perception about the amount of respect they receive from superiors and colleagues based on their efforts and achievements. Items were rated on a 4-point Likert scale (strongly disagree to strongly agree) with a high score representing higher levels of respect. In this study, the Cronbach alpha was .79.

Burnout

The Maslach Burnout Inventory–Human Services Survey (MBI-HSS) (Maslach & Jackson, 1986) was used to measure burnout. The MBI-HSS is a 22-item questionnaire which measures three aspects of burnout: emotional exhaustion (9-items), depersonalization (5-items), and decreased personal accomplishments (8-items). Using a 7-point Likert scale (never to everyday) respondents were asked to indicate “how often” they experience the content of the items. A higher score indicates a high level of burnout. In this study, the Cronbach alpha ranged from .70 to .90.

Job Satisfaction

Three measures of job satisfaction were used in this study.

1. To allow for comparison with the study conducted by Aiken and colleagues, a 2-item global measure of job satisfaction was used. Using a 4-point Likert scale (very dissatisfied to very satisfied), respondents were asked to rate their overall level of satisfaction with a) their present job and b) being a nurse (independent of current job). A higher score indicates a high level of job satisfaction.
2. To provide more detailed information about job satisfaction, the Nurses Job Satisfaction Scale (NJSS) (Hinshaw & Atwood, 1983) was used. The NJSS is a 23-item questionnaire which measures three aspects of nurses' job satisfaction: quality of care (7-items), enjoyment (11-items), and time to do one's job (5-items). Items were adapted from the Index of Job Satisfaction developed by Brayfield and Rothe (1951) to measure general job satisfaction. Items are rated on a five-point Likert scale (strongly disagree to strongly agree) then summed and averaged to yield the subscales. An overall NJSS score was created by summing and averaging the subscales. A higher score indicates a high level of job satisfaction. In this study, the Cronbach alpha ranged from .74 to .84.
3. Two subscales from the McCloskey/Mueller Satisfaction Scale (MMSS) (Mueller & McCloskey, 1990) were used to measure nurses' satisfaction with a) salary and benefits and, b) scheduling. Respondents rated their satisfaction for each item on a 5-point Likert scale (very dissatisfied to very satisfied). A higher score indicates a high level of job satisfaction. In this study, the Cronbach alpha ranged from .68 to .78.

Job Tension

The 9-item Job Tension Index (JTI) (Lyons, 1971) was used to measure job stress. Using a 5-point Likert scale (never to nearly all the time), respondents were asked to rate how often they were bothered by factors described in the nine statements about work conditions. A higher score indicates a high level of perceived job tension. In this study, the Cronbach alpha was .82.

Role Overload

Role overload refers to having too much work to do in the time available and was measured using 5-items used previously in the NSWHN (Shields, 2006) of which three items were originally developed by Beehr, Walsh and Taber (1976). Items were rated on a 5-point Likert scale (strongly disagree to strongly agree) and high score represents role overload. In this study, the Cronbach alpha was .88.

Intent to Leave

Intent to leave was measured by a single self-report item, “*Do you plan to leave your present nursing position?*” with three response choices: ‘yes, within the next 6 months’; yes, within the next 12 months; and ‘no plans within the year’. This item was used in the Ontario Registered Nurse Survey of Hospital Characteristics, which was part of the International Study of Nurse and Patient Outcomes (Aiken et al., 2001).

The survey also collected data on job characteristics, specifically number of hours worked, amount of overtime required, professional background of supervisor, and ability to practice to full scope of practice. Demographic characteristics included age, gender, educational preparation, years of experience in nursing, years of experience in facility, current role, and size of facility.

Data Analysis

Qualitative data were analyzed through content analysis and category coding to generate themes. Descriptive statistics were used to describe the correctional nurses participating in the study. Pearson Product-Moment Correlations (Appendix A), multiple regression analysis and logistic regression analysis (Appendix B) were used to describe the relationships between factors within the work environment and the selected outcomes.

Chapter 3: STUDY RESULTS

Objective 1: Describe the role of nurses working in provincial correctional facilities in Ontario.

The results pertaining to Objective 1 are presented for each of the three questions addressing it.

1. 1: What are the demographic characteristics of provincial correctional nurses?

In this study, participants represented various regions of the province (Figure 1). The majority of participants worked in facilities with greater than 500 inmates (42.2%), followed by facilities with 200 to 500 inmates (31.3%) and facilities with less than 200 inmates (26.5%). As shown in Table 2, the sample of correctional nurses in the study was predominantly female with an average age of 46.0 years with 20.7 years in nursing, 7.9 years working in correctional nursing, and 6.5 years in their current facility. The majority of nurses were diploma prepared (81.1%), working in classified full-time (50.8%) or unclassified (casual) (44.4%) positions.

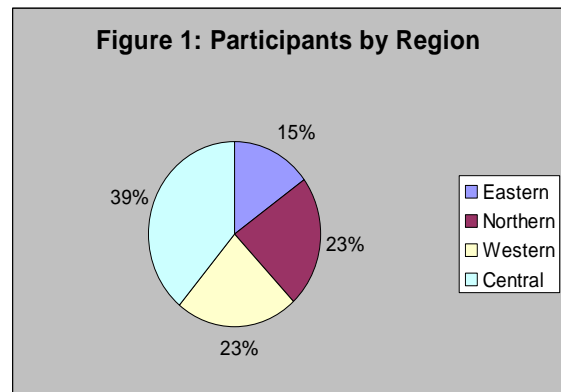


Table 2: Demographic Profile of Participants

	RN/RPN		HCM	
	Mean	SD	Mean	SD
Age in Years	45.98	11.07	47.62	9.37
Years in Nursing	20.66	12.19	25.12	10.47
Years in Correctional Nursing	7.86	6.80	13.04	8.98
Years in Current Institution	6.54	5.76	10.85	8.88
Gender (Overall n=293)	RN/RPN		HCM	
Female	83.8%		88.9%	
Male	16.2%		11.1%	
Employment Status (Overall n=293)	RN/RPN		HCM	
Classified Full-time	50.8%		92.6%	
Classified Part-time	4.9%		7.4%	
Unclassified	44.4%		-	
Highest Level of Nursing Education (Overall n=291)	RN/RPN		HCM	
RN Diploma	81.1%		70.4%	
Bachelor's Degree	18.9%		25.9%	
Master's Degree	-		3.7%	

SD=Standard deviation

The sample of HCMs in the study were also predominantly female with an average age of 47.6 years with 25.1 years in nursing, 13.0 years in correctional nursing, and 10.8 years in their current facility. The majority of HCMs were also diploma prepared (70.4%) working in classified full-time positions (92.6%). These results are slightly different than the results from a national study of unit managers working in acute care hospitals (Laschinger, Wong, Ritchie, D'Amour, et al., 2008). In that study, the average age was 47.1 years with 11.3 years of management experience,

however 71.1% reported having a baccalaureate degree while 11.4% had a diploma and 17% had a master's degree.

The majority of RN/RPNs (97%) indicated that the professional background of their immediate supervisor was a nurse. Other professional backgrounds included social work and business. In contrast, 70% of HCMs reported to supervisors who did not have a nursing degree, including superintendents, program deputies and deputy superintendents.

1.2: What are the role responsibilities and challenges for nurses in these settings?

“...every moment is different. It’s a very fast paced, ever changing environment, demanding...people don’t see what nurses do in correctional setting. They don’t realize we have acute patients just like they do in a hospital. We do most of the same treatments that a hospital nurse would do.”

During the interviews, correctional nurses described their jobs as fast-paced, ever-changing and dynamic. Several participants also described their work as challenging (23%), exciting (15%), enjoyable (15%) but also frustrating (39%), stressful (23%), and frightening (8%). Participants indicated that the work ‘can be frightening’ when inmates become verbally abusive, however the large majority of RN/RPNs (63%) and managers (78%) reported working in a safe environment.

The overarching theme revealed by participants is that correctional nurses are responsible for ‘everything and anything to do with inmate’s health care’. Other participants further articulated that correctional nurses ‘maintain the health status of inmate’ and fulfill other administrative/legal requirements related to inmates’ health care.

“Working in correctional nursing is an ongoing challenge. It is a constant battle between health care needs versus security concerns”

“All nursing care is dependent on correctional officers. Depending on the officer, nurses may get all their work done or not.”

The main correctional nursing duties described by participants included:

- Medication administration
- Provision of treatment (e.g., dressing change)
- Provision of counseling and health teaching (e.g., risk reduction, self-care behaviours)
- Management of psychiatric issues
- Performing initial (admission) and ongoing health assessment
- Attending to emergency/unexpected circumstances (e.g., injuries, medical emergency)
- Infection control
- Answering queries regarding inmates’ health from staff, family and authority
- Assisting physician at clinic (e.g., transcribing orders)

1.3: What professional group (within nursing and outside of nursing) do correctional nurses identify with?

During the interviews, participants were asked to identify which professional groups they identify with. In this study, the majority of nurses (46%) indicated that correctional nurses

“We have a significant number of mental health illnesses amongst our population... we do a lot of adjusting of medications, starting on medications and identifying mental issues with inmates upon arrival.”

“We also relate ourselves to public health nursing ... in terms of the infectious disease....we do a lot of TB monitoring.”

do not identify with one particular professional group due to their responsibility for a wide variety of health care needs. However, other participants identified mental health nursing (30%) and public health nursing (23%) as two professional groups with which they identify.

Objective 2: Evaluate the factors that influence the recruitment and retention of correctional nurses.

The results pertaining to Objective 2 are presented for each of the three questions addressing it.

2.1: What are the workplace environmental concerns voiced by nurses in correctional settings?

Interview and survey participants identified four key issues within their work environment:

- 1) inadequate staffing and heavy workload;
- 2) limited control over practice and scope of practice;
- 3) limited resources; and
- 4) challenging workplace relationships.

1) Inadequate staffing and heavy workload

Inadequate staffing and heavy workload was identified by 94% of the survey participants as a significant problem within their facilities. Survey results showed that 36% of RN/RPNs and 48% of HCMs thought that the staffing on their last shift was not adequate. Interview participants reported that nurses spend a lot of time on medication administration (from transcribing orders, dispensing manually, to hand delivering medication to each inmate, supervising the intake of each medication and documenting the completion of task), admission assessments (high volume of new admissions in most sites)

“Staffing is always a problem due to changing population!”

“We never have a full complement of staff and can never cover sick calls.”

and running clinics (transcribing orders, providing treatment and arranging for follow-up with specialists if needed). With the aging population and an increasing number of inmates with mental health issues, about 80% of inmates require the attention of correctional nurses and consume at least one medication. For example, one nurse may be responsible for administering morning medications to over 300 inmates.

“We are so short (of staff)...I hang on thinking, maybe it'll be a better environment... if we can get our numbers (of nurses) up... I will be able to do the things that I was hired to do, that I would find exciting to do.”

As shown in Table 2, HCMs reported working more paid hours per week on average as well as more paid and unpaid overtime hours compared to RNs/RPNs. On average, full-time HCMs reported working 48 paid hours per week with an average of 16 hours of paid overtime and 10 hours of unpaid overtime. In contrast, full-time RN/RPNs reported working 43 paid hours per week with an average of 7 hours of paid overtime and 1.5 hours of unpaid overtime. Casual RN/RPNs reported working 32 paid hours per week with an average of 3 hours of paid overtime and 2 hours of unpaid overtime. Overall, participants in smaller facilities worked significantly less hours ($F=8.64, p<.001$) and overtime per week ($F=6.55, p<.001$) than participants in the medium or larger sized facilities.

‘Staff (nurses) never get a break. They don't get lunch. They don't get to leave. They can't possibly get all their work done by the end of the day.’

The majority of RN/RPNs reported that the amount of overtime had remained the same (39%), however 52% of HCMs reported that their overtime had increased during the past year. The amount of paid overtime had increased the most significantly in medium (200-500 inmates) and smaller sized (< 200 inmates) facilities ($\chi^2=23.09$, $df=6$, $p=.001$).

		RN/RPN		HCM	
		Mean	SD	Mean	SD
Average Number Paid Hours					
	Full-time	43.24	7.38	48.02	8.95
	Part-time	36.54	14.82	37.50	17.68
	Casual	31.75	15.55	-	-
Average Number <u>Paid</u> OVERTIME hours					
	Full-time	7.16	6.47	15.89	16.04
	Part-time	5.43	3.36	6.50	7.78
	Casual	2.98	4.15	-	-
Average Number <u>Unpaid</u> OVERTIME hours					
	Full-time	1.49	2.16	10.24	7.77
	Part-time	5.50	6.63	-	-
	Casual	2.25	3.78	-	-
		%		%	
In the past year, amount of overtime has (n=291):					
	Increased	28.4		51.9	
	Remained the same	38.6		40.7	
	Decreased	9.8		3.7	
	Not Applicable	23.1		3.7	

SD=Standard deviation

2) Limited control over practice and scope of practice

As shown in Table 3, both RN/RPNs and HCMs reported having some autonomy in their job but a limited amount of control over their practice, which includes not having enough time and opportunity to discuss inmate care with other nurses or having enough RNs on staff to provide quality care for inmates.

Table 3: Autonomy and Control over Practice

	RN/RPN		HCM	
	Mean	SD	Mean	SD
Autonomy	2.61	.61	2.96	.57
Control over practice	2.22	.64	2.32	.58

SD:=Standard deviation

Range: 1 to 4. High score indicates high level of construct.

“Nursing in corrections is extremely demanding and challenging but very rewarding....if given the proper resources, the opportunity is there to really teach, influence and care for a population of people that really needs us and do appreciate us.”

Autonomy includes being able to make important health care and work decisions, and not being placed in a position of having to do things against one’s nursing judgment. Nurses working in medium sized facilities (200-500 inmates) reported significantly lower levels of autonomy than nurses working in the smaller (<200 inmates) or larger (>500 inmates) ($F=10.42$, $p<.001$). There were no significant differences between facilities in control over practice.

Close to 40% of RN/RPNs and 16% of HCMs reported that they were unable to practice to their full scope of practice. Reasons (n=88) given for not being able to practice to their full scope included: workload, staff shortage, lack of policies, limited resources (50%), type of setting (correctional facility), set up of the facility (32%), administrative limitations (12%), and lack of training or education (6%).

3) Limited resources

Limited resources were identified by 94% of the survey participants as a significant problem within their facilities. Interview participants reported that the concern for inmates is often not the priority in a culture where security and operations precede health care provision. In addition to health care units being short staffed, there is limited access to equipment (e.g., dressing supplies,

“A lot of times we’re doing dressings for example with materials I realize aren’t really adequate. We can be using other things for them...”

blood pressure cuffs), technology and opportunity to collaborate with allied health professionals to support care provision. Currently, most sites do not have computerized medication administration system or pharmacy technicians to prepare/dispense medication. In addition, they reported that it is also difficult to obtain funding for equipment purchase.

Several participants (59%) also expressed a lack of educational support in their work environment. Participants thought that in-services and time off for education would improve their competencies and ability to practice to their full scope.

“...I would like to be able to say I have more in-services or more opportunity to get education. I’m not getting that...”

Survey participants also indicated that they had limited access to resources, with RN/RPNs reporting more limitations (Table 4). RN/RPNs reported having limited access to resources such as having enough time to do paperwork and accomplish job requirements, and opportunities to

Table 4: Access to Resources

	RN/RPN		HCM	
	Mean	SD	Mean	SD
Access to resources	2.76	.72	3.03	.59

SD=Standard deviation

Range: 1 to 5. High score indicates high access to resources.

influence decisions related to human resources, obtaining supplies and equipment. In contrast, HCMs reported more access to resources such as being able to influence decisions regarding obtaining supplies and equipment but less able to influence regarding obtaining human resources. In addition, HCMs reported limited access to technology supports and acquiring temporary help when needed. Participants in the medium sized facilities (2--=500 inmates) reported significantly lower access to resources ($F=3.73, p<.05$) than participants in the smaller facilities (<200 inmates).

4) Challenging Workplace Relationships

The majority of interview participants (88%) indicated that the workplace relationships within their work environments can be challenging and difficult at times. This was examined further in the survey with questions focusing on collaboration, respect, conflict, abuse and bullying.

Collaboration

In this study, participants were asked about collaboration with four groups of colleagues: correctional officers, physicians, RN/RPNs and support staff (maintenance and food service workers). As shown in Table 5, both RN/RPNs and HCMs reported the highest level of collaboration with physicians followed by support staff, RN and RPNs, and correctional officers. HCMs reported slightly higher levels of collaboration with physicians and support staff, but slightly lower levels of collaboration with correctional officers. Only a small number of managers answered the question regarding collaboration between RN and RPNs therefore the mean is not reported. In both groups, there was only slight agreement that nurses and correctional guards work collaboratively. However, participants in the smaller facilities (<200 inmates) reported significantly higher levels of collaboration with physicians ($F=19.17, p<.0001$) and correctional officers ($F=7.36, p<.001$) than participants in the medium or larger sized facilities.

Table 5: Collaboration, Respect, Emotional Abuse, and Bullying

	RN/RPN		HCM	
	Mean	SD	Mean	SD
Collaboration				
Nurse-physician collaboration*	3.06	.69	3.25	.53
Collaboration with support staff*	2.88	.81	3.22	.70
Collaboration with RN/RPN*	2.74	.96	-	-
Collaboration with corrections officers*	2.60	.74	2.56	.82
Respect				
Respect from colleagues*	2.93	.84	2.74	.76
Respect from superiors*	2.62	1.02	2.81	1.15
Receive respect I deserve*	2.49	.94	2.33	.88
Conflict				
Task Conflict#	3.36	.94	3.54	.93
Relationship Conflict#	2.86	.93	3.04	.96
Overall, there is a lot of conflict#	2.98	1.23	3.19	1.14
Experienced Emotional Abuse in the Past Year				
	%		%	
From inmate(s) (n=181)	63.1		44.4	
From someone other than inmates (n=167)	55.6		66.7	
Bullying				
	%		%	
Observed bullying in the past year (n=295)				
No, never	16.0		11.1	
Yes, seldom	26.5		14.8	
Now and then	32.8		44.4	
Often	24.6		29.6	
Subject of bullying in the past year (n=294)				
No	47.2		33.3	
Yes to some extent	42.3		51.9	
Yes, to great extent	10.5		14.8	

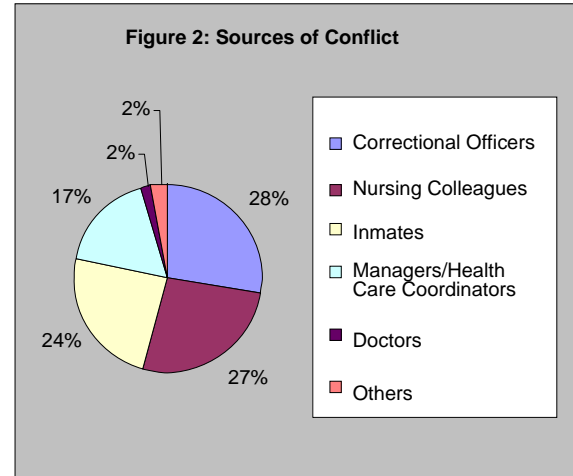
SD=Standard deviation; * Range: 1 to 4. # Range: 1 to 5. High score indicates high level of construct.

Respect

When asked if they feel they receive the respect they deserve from colleagues and superiors, both RN/RPNs and HCMs slightly disagreed (Table 5). However, RN/RPNs reported slightly more respect from colleagues than from superiors and HCMs reported receiving slightly more respect from superiors than from their colleagues. Both groups reported even lower levels when asked if they receive the respect and prestige they deserve considering all of their efforts and achievements. Participants in the smaller facilities (<200 inmates) reported significantly higher levels of respect ($F=6.26, p<.001$) than participants in the medium or larger sized facilities.

Conflict

Survey participants were asked about various aspects of conflict in their work environment, specifically relationship and task conflict. **Relationship conflicts** refer to interpersonal incompatibilities and involve personal issues such as dislike among individuals and feelings such as annoyance, frustration and irritation. **Task conflicts** refer to disagreements among individuals about the content of the task being performed, including differences in viewpoints, ideas, and opinions. Overall, HCMs reported experiencing conflict more frequently than RN/RPNs. Task conflict was experienced most frequently by both RN/RPN and HCMs. Participants were also asked to identify the main source of conflict in their work environment. As shown in Figure 2, the main sources of conflict were correctional officers and nursing colleagues. Participants in smaller facilities (<200 inmates) reported significantly lower levels of conflict ($F=17.91, p<.001$) than participants in the medium or larger sized facilities.



“...there are a few (correctional officers) who are very uncooperative and may have negative feelings about what it is that we want to do and accomplish throughout the day and they feel that maybe it isn’t necessary for us to do this.....”

Interview participants stated that correctional officers hold differing values and expectations than nurses regarding health care, these differences create conflict, leading to added stress to correctional nurses. For instance, each inmate must be escorted or accompanied by a correctional officer during each nurse/inmate encounter. Correctional officers may question the legitimacy of a nurse’s request to attend to an inmate.

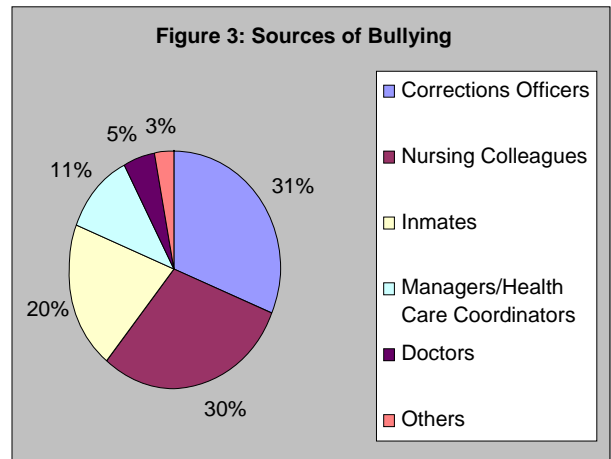
When discrepancies in values arise, nurses indicated that they often avoid the conflict because nurses require cooperation and protection from correctional officers. The box to the right is how one nurse described a scenario about relating with correctional officers:

“If they’re (correctional officers) mad at me then the whole group’s angry at me. So you challenge one of them, they gang up on you. So now you’re sitting at the door waiting or you’re getting the attitudes because you challenged one of them.”

Interview participants also reported that conflict among nurses have a negative impact on the collaborative practice environment. A majority of participants indicated that conflict was due to the heavy workload and stress.

Emotional Abuse and Bullying

Nurses and HCMs were asked about their exposure to bullying and abuse in their workplace during the past year. Less than 5% of participants had experienced physical abuse from inmates, which is significantly lower than the 28.4% of nurses who reported physical abuse from patients in the National Survey of the Work and Health of Nurses (NSWHN) (Shields, 2006). However, over 63% of RN/RPNs and 44% of HCMs had experienced emotional abuse from inmates; while greater than 55% of RN/RPNs and 66% of HCMs had experienced emotional abuse from someone other than inmates during the past year. Emotional abuse from someone other than inmates was highest in facilities with 200-500 inmates and lowest in facilities with less than 200 inmates ($\chi^2=10.23$, $df=2$, $p=.006$). These results are significantly higher than 8.7 to 16.9% reported by nurses from other sectors in the NSWHN (Shields, 2006).



Twenty-five percent of RN/RPNs and 30% of HCMs reported that they had often observed bullying in the past year while 53% of RN/RPNs and 67% of HCMs reported they had personally been the subject of bullying during the past year. Similar to the sources of conflict, main sources of bullying were correctional officers, nursing colleagues, and inmates (Figure 3).

2.2: What factors influence the recruitment and retention of correctional nurses?

Survey results showed that close to 81% of participants were planning on staying in their current job during the next 12 months, which is similar to nurses in other sectors (Shields, 2006; Tourangeau, McGillis Hall, Doran & Petch, 2006). When examining the predictors of intent to leave, the regression analysis (Appendix B) showed that high levels of conflict and low levels of autonomy were significant predictor of nurses' intent to leave their job within the next 12 months.

Of the 19% of participants who indicated they were leaving their jobs within the next year, the following reasons were given:

- Work conditions (workload, work environment, support, training, pay, hours, no full time positions, and no opportunities for advancement) (36%)
- Age or retirement issues (32%)
- Moving to a hospital or a different job (11%)
- Dissatisfied or too stressful (unspecified) 11%)
- Personal reasons (e.g. moving or education) (9%)

“Working in correctional nursing is an ongoing challenge. It is often difficult to hire and retain nurses because of pay scale.”

During the interviews, participants were asked to identify recruitment and retention strategies currently being used in their workplaces and to suggest other possible recruitment and retention strategies they think should be considered. Overall, HCMs and superintendents identified more recruitment and retention strategies (both effective and ineffective) than nurses. The majority of nurses (80%) stated that they were not aware of any recruitment or retention initiatives from their institution or from the Ministry of Community Safety and Correctional Services. Additionally, many participants expressed frustration over the lack of success with recruiting and retaining nurses in corrections setting.

According to interview participants, the most *effective recruitment strategy* was connecting with the local community and recruiting by personal referral (48%). Other effective strategies included providing opportunities for overtime (6%) and providing better training/orientation (6%). The most *ineffective recruitment strategies* included job fairs and general advertisements (59%). Other than ensuring good communication with nursing staff and good leadership (23%), no other commonly agreed upon *effective retention strategies* were identified. The interview data also suggested that unique challenges exist for some sites in recruiting and retaining nurses. For example, a facility's rural location creates challenges in recruiting nurses, while another facility's central location poses difficulties in recruiting nurses due to competition with other health care facilities where higher salaries are paid.

Suggestions for Recruitment and Retention Strategies

Three themes emerged from participants' suggestions for recruitment and retention strategies:

1. Reaching out to recruit nurses:

- Recruit in local communities – this is particularly relevant for facilities in suburban and rural areas. Participants felt that potential employees may not be willing to move for jobs due to the costs involved for relocation and the area may not provide equal opportunities for spouse/family.
- Recruit by personal referrals – nurses or other employees who are presently working in correctional facilities are more likely to be successful in recruiting nurses who can cope with correctional nursing.
- Increase correctional nursing's profile – participants felt that the nursing and health care communities are not aware/familiar with correctional nursing. Hence, increasing the profile of correctional nursing will raise awareness of such career opportunity.
- Introduce correction nursing to student nurses – recruiting new graduates should begin at the student level; correctional nursing should be introduced to student nurses as a career option. Correctional nursing may be incorporated in curriculum or practicum.

Suggestions for Recruitment

- *Recruit in local communities*
- *Recruit by personal referrals*
- *Increase correction nursing's profile*
- *Introduce correction nursing to student nurses*

2. Provide better work environment:

- Increase support (e.g., allow education leave, create networking opportunities for correction nurses) - to help nurses manage a broad scope of practice and make correctional nursing attractive for potential employees.

- Foster teamwork with non-health care staff (e.g., educate all correctional staff about nursing role) – to help nurses cope with the unique work demands with the cooperation from other staff members; to engender a healthy work environment.
- Improve orientation for new nurses – to help nurses cope with the unique work demands (e.g., complying with security requirements) and attract potential employees.

Suggestions for Retention

Improve work environment

- *Increase support*
- *Foster teamwork with non-health care staff*
- *Improve orientation for new nurses*

Recognize correctional nurses

- *Pay equity with other sectors*
- *Education of non-health care staff about importance of role*
- *Increase correctional nursing's profile*

3. Recognize the services provided by corrections nurses:

- Monetary incentives (e.g., pay bonus) – matching the pay scale with other nursing sectors to increase competitiveness in recruitment. Another suggestion was given to mimic the federal facilities, where pay bonus such as ‘danger pay’ and pay bonus for each year a nurse staying in the federal system were offered.
- Education of non-health care staff, such as correctional officers – emphasizing the importance of health care/nursing within correctional facilities.
- Increase correctional nursing’s profile.

2.3 What structures and resources within correctional settings support nursing practice and positively influence the quality of nurses’ work life?

During the interviews, participants identified three main sources of professional support:

1. Colleagues/Peers (76%): Peers were most frequently cited by participants as a source of professional support. Colleagues were major sources of professional support because: a) they were the most accessible (*‘I can talk to them at any time’*); and, b) other sources of support were limited (*‘my peers... that’s it’*).
2. Health Care Managers (47%): Interview data revealed that HCMs were involved in ensuring policies, procedures and the standard of practice were followed by nurses. As such, HCMs became an important figure in correctional facilities in supporting the needs of nurses.
3. Professional organizations (23%): Some participants, mainly HCMs, also identified their membership with the College of Nurses and Registered Nurses Association of Ontario as a source of professional support through providing professional standards and best practice guidelines.

‘... when things get tough or when the shift is not going well, she [the HCM] puts on her sailors uniform and she goes out and does what we do. I respect that. ... she’ll deliver the meds. She’ll do whatever needs to be done.’

Objective 3: Examine correctional nurses’ perceptions of their work environment and subsequently, the impact of this work environment on their job satisfaction, job stress and burnout.

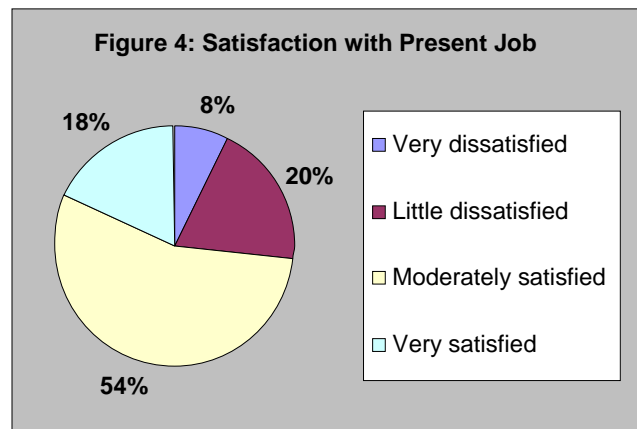
The results pertaining to Objective 3 are presented for each of the three questions addressing it.

3.1 How satisfied are nurses working in correctional settings and what factors influence job satisfaction?

Interview participants were asked to identify factors that contribute to their job satisfaction. Being helpful to inmates and making a difference in inmates' lives was the main factor identified by most participants (62%). Having autonomy in their practice (31%) was also identified as a key factor in job satisfaction which is similar to the study by Smith (2005) where autonomy of the role was one of the main reasons nurses choose to practice correctional nursing. Other factors influencing job satisfaction included recognition from others (15%), good relationship with colleagues (8%), challenging work (8%), and variety in practice (8%).

"I love my job! What I do affects my clients, their families and the public at large!"

Survey participants were asked questions about several aspects of job satisfaction. Overall, 72% of participants were moderately or very satisfied with their present job while 28% were dissatisfied (Figure 4). This is higher than the results found in the NSWHN (Shields, 2006), where 12.5% of participants reported being dissatisfied with their jobs. To examine job satisfaction in more detail, survey participants were asked how satisfied they were with five specific aspects of their job:



- level of enjoyment (e.g., enjoy job, enthusiastic about work, find work pleasant)
- time to do job (e.g., time to do job well, to get everything done without staying overtime)
- quality of care (e.g., care meets personal standards, satisfied with care given)
- salary and benefits (e.g., salary, vacation, benefits package)
- scheduling (e.g., hours worked, flexibility in scheduling)

Table 6: Job Satisfaction

	RN/RPN		HCM	
	Mean	SD	Mean	SD
Nurses' Job Satisfaction Scale	3.38	.55	3.27	.56
Enjoyment	3.58	.63	3.63	.65
Time to do one's job	2.83	.86	2.24	.85
Quality of Care	3.32	.81	3.37	.87
McCloskey/Mueller Satisfaction Scale	2.85	.84	3.20	.74
Salary & Benefit	2.76	1.00	3.16	.97
Scheduling	2.92	.95	3.18	1.01

SD=Standard deviation
Range is 1 to 5. High score indicates high satisfaction.

Both groups reported being the most satisfied with the level of enjoyment in their job (Table 6). Both groups were the most dissatisfied with their salary and benefits followed by the limited time they have to do their work. However, HCMs were more satisfied

with their salary/benefits and scheduling compared to the RN/RPN group.

Predictors of Job Satisfaction:

- Nurses' role
- Access to resources
- Control over practice
- Autonomy
- Respect

Predictors of Satisfaction with Salary, Benefits and Scheduling:

- Older age
- Access to resources
- Autonomy
- Respect
- Fewer hours worked

As shown in the correlation matrix in Appendix A, several factors positively influenced job satisfaction including control over practice, autonomy, access to resources, collaboration with physicians and overall conflict. Interestingly, collaboration with correctional officers resulted in lower levels of job satisfaction. The regression analyses (Appendix B) showed that significant predictors of nurses job satisfaction (consisting of enjoyment, time to do work, and quality of care) included role (more likely in RN/RPN role), access to resources, control over practice, autonomy, and overall respect. Significant predictors of satisfaction with salary, benefits and scheduling included an older age, access to resources, autonomy, overall respect and fewer hours worked per week.

3.2 How stressed are nurses working in correctional settings and what factors influence their stress levels?

High levels of work stress (46%) were mentioned when interviewees were asked about how their work life affects their home life. Some causes of work stress included: heavy workload (15%), having to deal with multiple, different issues simultaneously in a complex setting (8%), being 'overstimulated all the time' (8%) and having to deal with challenging workplace relationships (8%).

'... for a four-hour shift, it's really difficult to deal with the population and then throw in an emergency on top of that and get out of here on time ... it places a lot of stress on the nurses.'

'You had to argue with the corrections officers, you had to argue with the inmates, ... the lawyers, on the phone to some other community people... at the end of the day it's very frustrating, stressful and exhausting.'

As mentioned earlier in the section under research question 2.1, heavy workload and hours worked is a significant issue within the work environment of correctional nurses and HCMs. Survey participants were asked about job tension and role overload (Table 7).

Job Tension

Job tension refers to an individual's perception of role clarity or role ambiguity. Participants were asked about the frequency with which they are bothered by job aspects such as clarity of scope and responsibilities, level of workload, knowing how one's performance is evaluated, knowing what colleagues expect of them and

Table 7: Role Overload and Job Tension

	RN/RPN		HCM	
	Mean	SD	Mean	SD
Job Tension *	2.70	.73	2.90	.83
Role Overload**	2.21	.98	3.13	.80

SD=Standard deviation

*Range: 1 to 5. High score indicates high tension.

**Range: 0 to 4. High score indicates high role overload.

having enough information to carry out their job. In this study, both RN/RPNs and HCMs reported that they were only bothered sometimes by these various aspects indicating a low level of job tension.

Predictors of Job Tension:

- *Manager role*
- *Younger age*
- *Limited access to resources*
- *Limited control over practice*
- *Limited autonomy*
- *Intragroup Conflict*

As shown in the correlation matrix in Appendix A, control over practice, autonomy, access to resources, overall respect, collaboration with physicians and collaboration with correctional officers resulted in lower levels of job tension. Higher levels of overall conflict and higher number of hours worked resulted in higher levels of job tension. The regression analyses (Appendix B) showed that the significant predictors of job tension were role (more likely in HCM role), younger age, limited access to resources, limited control over practice, and limited autonomy, as well as higher levels of conflict.

Role Overload

Role overload includes factors such as: having to arrive early or stay late to get work done; working through breaks to complete assigned work; having too much work for one person to do or to do everything well. RN/RPNs in this study reported slight overload while HCMs reported a very high level of role overload.

Predictors of Role Overload:

- *Manager role*
- *Limited access to resources*
- *Limited control over practice*

As shown in the correlation matrix in Appendix A, control over practice, autonomy, access to resources, and overall respect resulted in lower levels of role overload. Higher levels of conflict and higher number of hours worked resulted in higher levels of role overload. The regression analyses (Appendix B) showed that significant predictors of role overload were role (more likely in HCM role), limited access to resources and limited control over practice.

3.3 How burned out are nurses working in correctional settings and what factors influence their burnout levels?

Burnout was mentioned less frequently than job stress (8%) during study interviews. One participant felt that burnout occurred as a result of heavy workload and having to cope with a challenging work environment.

'...I think all of these things lead up to the burnout – the stress, the work load, the hours, the dealing with all the situations.'

Survey participants completed the Maslach Burnout Inventory (MBI) which measures three components of burnout: emotional exhaustion, personal accomplishment and depersonalization. Emotional exhaustion refers to the depletion of emotional energy. Personal accomplishment assesses an individual's expectations of their continued effectiveness at work and their satisfaction with past and present accomplishments. Depersonalization refers to respondents distancing themselves from their work as a way of coping with exhausting demands and includes behaviours such as being callous toward clients and treating them as impersonal objects.

HCMs reported higher scores than RN/RPNs on the emotional exhaustion and depersonalization subscales and lower scores on the personal accomplishment subscale (Table 8). According to Leiter & Maslach (2004), scores above 3.0 on the emotional exhaustion subscale are indicative of high burnout. In this study, 66.7% of HCMs and 39.3% of RN/RPNs had scores of 3.0 or higher.

Table 8: Maslach Burnout Inventory (MBI)

MBI	RN/RPN		HCM	
	Mean	SD	Mean	SD
Emotional Exhaustion	2.53	1.36	3.33	1.22
Personal Accomplishment	4.27	1.00	4.17	0.15
Depersonalization	1.49	1.28	1.62	1.22

SD=Standard deviation

Range: 0 to 6. High score indicates high level of construct.

Predictors of Emotional Exhaustion:

- *Manager role*
- *Limited access to resources*
- *Limited control over practice*
- *Limited autonomy*
- *Intragroup Conflict*

As shown in the correlation matrix in Appendix A, control over practice, autonomy, access to resources, respect, collaboration with physicians and collaboration with correctional officers resulted in lower levels of emotional exhaustion. Higher levels of conflict and higher number of hours worked resulted in higher levels of emotional exhaustion. The regression analyses (Appendix B) showed that significant predictors of emotional exhaustion were role (more likely in HCM role), limited access to resources, limited control over practice, and limited autonomy, as well as higher levels of conflict.

Chapter 4: DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

Nurses are the primary health care providers in correctional facilities and play a critical role in ensuring inmates' access to health care. One of the main reasons nurses choose to practice correctional nursing is the professional autonomy of the role (Smith, 2005). However correctional nurses face a number of challenges and stressors in their work (Droes, 1994; Flanagan, 2006; Weiskopf, 2005). The limits of the strict nurse-inmate boundaries (Flanagan, 2006) and different assumptions of the value of health care (Watson, Stimpson, & Hostick, 2004) can lead to stress and frustration for nurses when trying to advocate for proper health care (Weiskopf, 2005). Our study aimed to describe the role and work environment of provincial correctional nurses in Ontario, including their workplace environmental concerns, the impact of this work environment on nurse outcomes and generate evidence about strategies for recruiting and retaining nurses in this unique sector.

Role of Provincial Correctional Nurses in Ontario

Overall, it is noteworthy that nurses working in provincial correctional facilities in Ontario are similar in age to other nurses working in Ontario (College of Nurses of Ontario, 2009). However some differences were noted. Nurses in correctional settings are more experienced, have a higher percentage of males, and a lower percentage of full-time nurses; 50.8% full-time compared to 64.7% for the general Ontario population.

The reports of nurses in this study reflect the breadth of correctional nursing practice that has been reported in the literature (e.g., Geiman & O'Brien, 2008; Kearley & Steeves, 2010). Correctional nurses work independently with minimal support, in an environment that is fast-paced and a clientele that is challenging. The complex health needs of inmates require nurses with specialized knowledge and skill. They need strong assessment skills and clinical decision-making skills to help them interact professionally with a clientele who may need health care, but may be manipulative and aggressive (Smith, 2005). Working with inmates also requires a "sound nursing background" that spans public health; psychiatric, emergency, chronic and critical care; disease management; and medical-surgical services (Geiman & O'Brien, 2008). In correctional settings "nurses do more than just treat health problems. In the time spent talking, listening and interacting with inmates, nurses are always on the lookout for ways to help them be healthier" (Kearley & Steeves, 2010, p. 24).

The role of provincial correctional nurses encompasses all aspects of nursing practice, including medication administration, provision of treatments such as dressing changes, health counseling, management of mental health and addiction concerns, comprehensive health assessment, emergency care, infection control, and assisting other health professionals such as physicians. The breadth of scope is both a challenge and attraction for nurses working in this sector. The challenge relates to skill development. A solid knowledge and expertise is needed to optimize nursing practice and scope of practice within these settings. However, due to heavy workloads, lack of time and inadequate staffing, nurses are not always able to obtain the training or ongoing

education that is required for their broad scopes of practice (Droes, 1994). On the other hand the breadth of practice is an attraction for nurses who are interested in expanding their expertise in new areas of practice. As noted in a recent publication of the Canadian Nurse, “if you like to learn, its ideal” (Kearley & Steeves, 2010, p. 26).

Workplace environmental concerns voiced by nurses in provincial correctional settings

Almost three decades of research indicates that organizational attributes of the nursing work environment valued by nurses as important to support their professional practice are associated with superior nurse and patient outcomes (Flynn, Carryer, & Budge, 2005; Schmalenberg & Kramer, 2008). Lack of productive, healthy work environments have been associated with nursing shortage, poor quality of nurses’ work lives, nurse job dissatisfaction, low productivity, and poor quality unsafe care (Schmalenberg & Kramer, 2008). Work environments that are valued by nurses provide support for education, have positive relationships, clinically competent peers, support clinical autonomy, control over nursing practice, have adequate staffing, supportive leadership, and demonstrate patient-centred values (Newhouse, Morlock, & Provonost, 2009; Schmalenberg & Kramer, 2008). Nurses in this study expressed many of the same values and concerns with regard to the work environment in provincial correctional settings. Participants also identified several issues associated with their unique context, including:

1. *Inadequate staffing and heavy workloads.* Participants who worked full-time reported a higher amount of paid overtime than the general nursing population in the National Survey of the Work and Health of Nurses (7.2 hours versus 5.4 hours) (Shields, 2006). Among survey participants, HCMs reported an even higher amount of paid and unpaid overtime than RN/RPNs. Overall, 36% of nurses and 48% of HCMs reported an inadequate staffing level. This is similar to the national survey of nurses across all settings (38%) (Shields, 2006). With the aging population and an increasing number of inmates with mental health issues, about 80% of inmates require the attention of correctional nurses and consume at least one medication. For example, one nurse may be responsible for administering morning medications to over 300 inmates.
2. *Limited control over practice and scope of practice.* Participants reported having some autonomy in their work but limited control over their practice, which includes not having enough time and opportunity to discuss inmate care with other nurses or having enough nurses on staff to provide quality care for inmates. They reported slightly higher autonomy but lower control over their practice in comparison to a large national sample of staff nurses (Laschinger, 2001). Close to 40% of correctional nurses reported that they were unable to practice to their full scope of practice due to the work environment. Limited control over practice was a significant predictor of job dissatisfaction, job tension, role overload, and burnout.
3. *Limited resources.* Participants reported limited access to resources, such as having enough time to do paperwork and accomplish job requirements. In addition to health care units being short staffed, there is limited access to equipment (e.g., dressing supplies, blood pressure cuffs), technology, and opportunities to collaborate with allied health professionals. Several participants also expressed a lack of educational support in their work environment to improve their competencies and ability to practice to their full scope. Limited access to resources was a significant predictor of job dissatisfaction, job tension, role overload, and burnout.

4. *Challenging workplace relationships.* It is alarming to note that a higher percentage of correctional nurses reported experiencing emotional abuse than general duty nurses in the NSWPN (56.8% versus 15.9%, respectively) (Shields, 2006). Similarly, the levels of conflict were higher than those previously found in acute care settings (Almost, 2010). A very high percentage of nurses and managers also reported that they had personally been the subject of bullying during the past year. The main sources of conflict and bullying were correctional officers and nursing colleagues. Lack of respect was a significant predictor of job dissatisfaction. Intragroup conflict was a significant predictor of job tension, burnout, and intent to leave.

Impact of Work Environment on Nurse Outcomes

This study explored provincial correctional nurses' job satisfaction, stress and burnout. Findings related to each are briefly discussed below:

- *Job satisfaction.* The majority (72%) of correctional nurses were satisfied with their jobs. However a little over a quarter reported feeling dissatisfied with their current job, which is greater than the NSWPN (Shields, 2006) (27% versus 12%). Exploration of the factors that most accounted for nurses' job satisfaction found that nursing role, access to resources, control over practice, autonomy, and respect explained significant variation in nurses' job satisfaction. These findings are very consistent with previous literature. For example an investigation of the organizational attributes that hospital and home care nurses valued in their work environment revealed a similar set of factors, such as professional autonomy, collaborative relationships with physicians, access to resources to support patient care, and organizational support (Flynn, Carryer, & Budge, 2005).
- *Job stress and burnout.* Correctional nurses reported moderate levels of job tension and role overload, with HCMs reporting higher levels of role tension and role overload than correctional nurses. Likewise, HCMs reported higher levels of burnout than nurses. According to Leiter and Maslach (2004), scores above 3.0 on the emotional exhaustion subscale are indicative of high burnout. In this study, approximately 68% of HCMs and 39% of RN/RPNs had scores of 3 or higher, indicating a relatively high proportion of nurses expressing burnout. An analysis was conducted to explore the relationship between quality work environment variables and nurse burnout. The results indicated that the manager role, limited access to resources, control over practice, and autonomy, as well as higher levels of intragroup conflict explained significant variation in burnout.

Strategies for Recruitment and Retention

Workforce planning for healthcare suggests that if no policy interventions are implemented, the shortage of RNs in Canada will increase to almost 60,000 full-time equivalents (FTEs) by 2022 (Tomblin Murphy, 2009). Planning for this future scenario requires the development of recruitment and retention strategies to stem the flow of nurses leaving the profession and to attract nurses, particularly to those under-resourced sectors such as correctional settings. It is noteworthy that overall, nurses surveyed in this study indicated they intended to stay working in correctional settings (81%) which compares well to nurses overall (79%) (Tourangeau, Coghlan, Shamian & Evans, 2005).

Interview participants in this study were, for the most part, unaware of recruitment and retention strategies from their institution or from the Ministry of Community Safety and Correctional

Services. This does not mean such strategies were absent, it may reflect a lack of profile of existing efforts. In the nurses' view, the most effective recruitment strategies were personal referrals and directed to specific target audiences. For instance, advertisements should be aimed at local communities where nurses live in close proximity to a correctional facility. Reaching out to university/college nursing programs to raise awareness of correctional nursing was suggested as a strategy for recruiting new graduates. Addressing worklife issues were seen as both a recruitment and retention strategy. Retention strategies that were suggested included promoting good leadership, ensuring good communication, establishing attractive and competitive salary and benefit structures, creating opportunities for educational leaves, improving orientation for new nurses, and fostering effective teamwork.

Study Limitations and Strengths

To the best of our knowledge, this is the first investigation of worklife issues of nurses working in provincial correctional facilities in Canada. Data collection was designed to enable comparisons between nurses working in correctional facilities with nurses working in other health care sectors. Data collection targeted the full population of provincial correctional nurses in Ontario in order to strengthen the representativeness of the findings and study conclusions, and was based on well validated and reliable instruments. Notwithstanding these strengths, there are some limitations to the study. The response rate for nurses was 56% which is good for survey research, but could have resulted in a non-response bias, the effects of which cannot be determined. Secondly, the sample of health care managers was small which limited our ability to conduct sub-group analyses.

Conclusions

In conclusion, this study aimed to describe the role of nurses working in provincial correctional settings, describe worklife issues and identify strategies for attracting and retaining nurses in this sector. The study findings demonstrated that provincial correctional nurses are slightly more dissatisfied with their jobs than nurses in the general nursing setting but have higher intention to stay in their current jobs. It was noteworthy that 72% were satisfied with their job and 81% were planning to remain working in corrections. Nevertheless, worklife issues were identified that need to be addressed in order to strengthen the professional practice environment, attract nurses, retain them, and address role overload and burnout for nurses working in leadership roles.

Recommendations

1. Work environment interventions are needed to create healthy work environments and workplace relationships, and subsequently increase job satisfaction, prevent burnout, job tension and role overload. These interventions need to address inadequate staffing and heavy workload, limited control over practice and scope of practice, limited resources, and challenging workplace relationships.
2. The complex health needs of inmates require nurses with specialized knowledge and skill. Nurses need strong assessment skills and clinical decision-making skills to help them interact professionally with a challenging clientele who need health care. Educational and policy initiatives are needed to provide opportunities for correctional nurses to increase their capacity to practice to full scope of practice.
3. Recruitment strategies need to be publicized, target local communities where nurses live, and reach out to nursing programs to attract new graduates.

Chapter 6: RESEARCH TRANSFER

Research Transfer Activities To Date

- Almost, J., Doran, D., Ogilvie, L., Miller, C., Kennedy, S., Timmings, C., Rose, D., Squires, M., Lee, C., & Bookey-Bassett, S. (April, 2010). *Exploring Worklife Issues in Correctional Settings*. Invited presentation to Corrections Services Canada, Ottawa, ON.
- Almost, J., Doran, D., Ogilvie, L., Miller, C., Kennedy, S., Timmings, C., Rose, D., Squires, M., Lee, C., & Bookey-Bassett, S. (April, 2010). *Exploring Worklife Issues in Correctional Settings*. Invited presentation at the Correctional Nurses Annual Health Care Conference, Toronto, ON.
- Almost, J., Doran, D., Ogilvie, L., Miller, C., Kennedy, S., Timmings, C., Rose, D., Squires, M., Lee, C., & Bookey-Bassett, S. (June, 2010). *Exploring Worklife Issues in Correctional Settings*. Podium presentation at the 3rd Annual Research Day: Advancing Research for Health in our Global Community, Toronto, ON.

Upcoming Research Transfer Activities

Presentations

1. Site visits: Presentation of findings to the study population
2. Conference presentations
 - American Correctional Health Services Association Conference
 - Correctional Service of Canada Conference
 - National Conference on Correctional Health Care

Publications

1. A series of five 'Fact Sheets' will be distributed to the study population following approval from the funding sponsor. It will also be available at the Nursing Health Services Research Unit (NHSRU)
2. Submission to relevant academic and professional journals such as:
 - Corrections Compendium
 - Corrections Today
 - Journal of Correctional Health Care
 - Journal of Health Care Management

Media

1. Study summary will be available on the Nursing Health Services Research Unit (NHSRU) website
2. Press release from the Lawrence S. Bloomberg Faculty of Nursing

Future Research

Almost, J., Doran, D., Ray, K., (Co-PIs), Ogilvie, L., Miller, C., Rose, D., Squires, M. *The scope of practice for nurses working in correctional facilities in Ontario: A pilot study of an educational intervention to optimize practice.* (2010 – 2012)

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Appendix A: CORRELATION MATRIX

Table 9: Pearson Product-Moment Correlations for the Key Outcomes

	Job Satisfaction	Job Tension	Role Overload	Emotional Exhaustion	Personal Accomplishment	Depersonalization
Age	.06	-.06	.03	.03	.07	-.23**
Number of Hours Worked	-.08	.13*	.16**	.17**	.01	.08
Autonomy	.46**	-.49**	-.21**	-.40**	.29**	-.21**
Control Over Practice	.47**	-.45**	-.43**	-.40**	.17**	-.18**
Collaboration with Physicians	.19**	-.21**	.06	-.15*	.22**	-.23**
Collaboration with Correctional Officers	.13*	-.15*	.00	-.14*	.18**	-.07
Overall Conflict	-.22**	.31**	.10	.32**	-.12*	.23**
Respect	.41**	-.40**	-.23**	-.40**	.25**	-.25**

* $p < 0.05$ ** $p < 0.01$

Appendix B: REGRESSION ANALYSES

Table 10: Logistic Regression: Predictors of Intent to Leave

Dependent Variable	Independent Variables	Beta (SE)	Wald's χ^2	Odds Ratio† (95% CI)	p*
Intent to Leave Job Within the Next 12 Months	Manager role	.48(.66)	.53	1.62 (.44-5.9)	.47
	Age	.02(.02)	1.48	1.02(.99-1.06)	.22
	Medium size facility	.15(.38)	.17	1.17(.56-2.43)	.68
	Access to resources	-.48(.33)	2.17	.62(.33-1.17)	.14
	Control over practice	-.71(.38)	3.41	.49(.23-1.04)	.07
	Autonomy	.15(.08)	3.78	1.17(1.00-1.36)	.05
	Collaboration with correctional officers	.07(.25)	.07	1.07(.65-1.74)	.80
	Overall Conflict	.87(.25)	12.31	2.40(1.47-3.91)	.00
	Overall Respect	.04(.28)	.03	1.05(.60-1.82)	.87
Hours worked per week	-.00(.02)	.01	1.00(.97-1.03)	.94	
Goodness-of-fit test			χ^2	df	p*
Hosmer & Lemeshow			10.32	8	.24

†Odds ratio of corrections nurses leaving their position within 12 months

*Two-tailed

Bold indicates significant values

Table 11: Factors Associated with Key Study Outcomes

Dependent Variable	Independent Variables	R²	Standardized Beta Estimate	p*
Role Overload	Manager role	.30	.29	.00
	Age		-.01	.92
	Medium size facility		-.01	.83
	Access to resources		-.21	.00
	Control over practice		-.37	.00
	Autonomy		.07	.36
	Collaboration with correctional officers		.10	.10
	Overall Conflict		.01	.92
	Overall Respect		-.06	.41
	Hours worked per week		.08	.17
Emotional Exhaustion	Manager role	.32	.20	.00
	Age		-.01	.91
	Medium size facility		-.03	.64
	Access to resources		-.14	.04
	Control over practice		-.18	.01
	Autonomy		-.18	.02
	Collaboration with correctional officers		.04	.53
	Overall Conflict		.14	.03
	Overall Respect		-.12	.09
	Hours worked per week		.09	.14
Job Tension	Manager role	.37	.17	.00
	Age		-.11	.03
	Medium size facility		.01	.80
	Access to resources		-.25	.00
	Control over practice		-.16	.03
	Autonomy		-.24	.00
	Collaboration with correctional officers		.04	.53
	Overall Conflict		.12	.05
	Overall Respect		-.07	.30
	Hours worked per week		.00	.98

*Two-tailed

Bold indicates significant values

Table 11 continued

Dependent Variable	Independent Variables	R²	Standardized Beta Estimate	p*
Job Satisfaction	Manager role	.36	-.13	.02
	Age		.09	.10
	Medium size facility		-.02	.71
	Access to resources		.28	.00
	Control over practice		.16	.02
	Autonomy		.22	.00
	Collaboration with correctional officers		.01	.83
	Overall Conflict		.03	.67
	Overall Respect		.14	.05
	Hours worked per week		.02	.78
Satisfaction with Salary & Schedule	Manager role	.25	.10	.10
	Age		.16	.01
	Medium size facility		.03	.61
	Access to resources		.18	.01
	Control over practice		-.06	.47
	Autonomy		.26	.00
	Collaboration with correctional officers		.07	.27
	Overall Conflict		.08	.25
	Overall Respect		.20	.01
	Hours worked per week		-.14	.02

*Two-tailed

Bold indicates significant values