NURSES' PERCEPTIONS OF THE IMPACT OF HEALTH CARE REFORM AND JOB SATISFACTION

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Nurses' Perceptions of the Impact of Health Care Reform and Job Satisfaction

by

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Abstract

A descriptive correlational study was designed to investigate nurses’ job satisfaction. The relationships among demographics, work-related variables, impact of health care reform, and job satisfaction were also examined. The Conceptual Model of Job Satisfaction, a modified version of the Mueller and Price (1990) integrated causal model, provided the framework for this study.

The sample comprised of 298 staff nurses employed in critical care, medical, and surgical areas of three acute care hospitals. The majority of subjects had diploma level education (81.1%) and were between 30 to 39 years of age (54.7%). A significant number were employed on a full-time permanent basis (72.4%), worked in surgical areas (42.8%), had 9 years or less of nursing experience (47.8%), and were in current positions for 5 to 9 years (43.1%). Data were collected over a five week period. Instruments included the Impact of Health Care Reform Scale, the McCloskey/Mueller Satisfaction Scale, and the Descriptive Profile.

Study findings indicated that nurses were slightly dissatisfied with their jobs, and were more negative than positive about the impact of health care reforms. Respondents were most satisfied with coworkers and interaction opportunities, and least satisfied with control/responsibility and extrinsic rewards. Respondents were most positive about professional issues, and most negative about quality of care concerns and workplace conditions. Workplace
conditions, safety concerns, quality of care concerns, professional issues, and health care reforms depicted moderate to strong correlations with job satisfaction. Age, area of employment, nursing experience, and current position tenure were also found to affect levels of job satisfaction. During regression analysis four determinants (i.e., workplace conditions, safety concerns, quality of care concerns, and professional issues) and three correlates (i.e., age, area of employment, and current position tenure) combined to explain 48.8% of the variance in job satisfaction.

The results of this study suggest that health care reforms are having a negative impact on job satisfaction. Although these results support some of the findings from previous research, there is certainly a need to conduct further research to examine the effects of other work environment factors on job satisfaction.
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CHAPTER 1

Introduction

In response to escalating costs in the 1980's, federal and provincial/territorial governments and health care organizations were challenged to be more responsive and accountable for providing quality services. System downsizing and organizational restructuring rapidly became the dominant reform strategies. This resulted in major adjustments to managerial structures (Charns & Smith Tewksbury, 1993; Leatt, Lemieux-Charles, & Aird, 1994; Mara, 1993; Sovie, 1995), and staffing levels and skill mix (Behner, Fogg, Fournier, Frankenbach, & Robertson, 1990; Jones, 1993; Prescott, 1993; Sovie, 1995), as well as the consolidation of institutional boards under regional health boards to reduce administrative duplication (Bruce, 1997; Jackson, 1995; Vail, 1995).

Although there is much discussion in the literature on how organizational structure and process influence quality of care and provider and patient outcomes (Donabedian, 1988; Dunham & Fisher, 1990; Kramer & Schmalenberg, 1988a, 1988b; Peters, 1991, 1995), there is limited empirical support to clarify the exact nature of these relationships (Aiken, Smith, & Lake, 1994; Blegen, Goode, & Reed, 1998; Brooten & Naylor, 1995). The pervasive downsizing and managerial restructuring have led many to voice concerns about the potential negative impact on quality of care (Behner et al., 1990; LaRochelle, 1989; Nyberg, 1990; Prescott, 1993; Way, 1995; Weeks & Downey, 1993).
Concerns have also been raised about the system's ability to maintain quality outcomes (e.g., patient-related - mortality, morbidity, and satisfaction; provider-related - stress, job satisfaction, performance, and productivity levels) following hospital closures, staff reductions, and managerial changes (Behner et al., 1990; East & Robinson, 1994; LaRochelle, 1989; Nyberg, 1990; Petchers, Swanker, & Singer, 1988; Shindul-Rothschild, Berry, Long-Middleton, 1996; Way, 1995). These concerns have intensified the debate over what constitutes quality care and quality outcomes, and the role played by structure and process in shaping outcomes (Brooten & Naylor, 1995; Jennings & Staggers, 1998; Mark, 1995).

Because the quality of nursing care is an important force in determining patient outcomes, an obvious preliminary step is to develop a greater understanding of factors affecting direct care providers. The purpose of the current study was to investigate the effects of health care reforms on the job satisfaction of registered nurses working in acute care settings in Newfoundland. A second purpose was to investigate the separate and interactive effects of nurses' characteristics on job satisfaction.

**Background and Rationale**

Nurses, who constitute the largest group of health providers working in acute care settings, have been most affected by organizational downsizing and managerial restructuring. The challenge for nurses is to be productive and
maintain quality standards while trying to contend with the stress and uncertainty of a work environment that is undergoing radical change (Dropleman & Thomas, 1996; East & Robinson, 1994; LaRochelle, 1989; Mara, 1993; Nyberg, 1990; Petchers et al., 1988; Sovie, 1995).

Few scientific studies have been designed to evaluate the impact of health care reforms on quality of care, cost-containment, and the quality of patient and provider outcomes (Jennings & Staggers, 1998; Jones, 1993; Kinneman, Hitchings, Bryan, Fox, & Young, 1997; Penchansky & Macnee, 1993; Sovie, 1995). There is support for the negative impact of staff reductions on the quality of care (Nyberg, 1990; Way, 1994, 1995) and patient outcomes (Behner et al., 1990). However, study findings have been inconsistent on the impact of managerial restructuring on quality of care (East & Robinson, 1994; Effken & Stetler, 1997; Hastings & Waltz, 1995; Morris, Stuart, Monaghan, & Alton, 1994) and nurses' job satisfaction (Hastings & Waltz, 1995; Kinneman et al., 1997; Morris et al., 1994).

The influence of the work environment on nurses' job satisfaction has been the focus of numerous research studies. A number of studies have found support for a positive association between job satisfaction and autonomy (Bush, 1988; Hastings & Waltz, 1995; Hinshaw, Smeltzer, & Atwood, 1987; McCloskey, 1990; Roedel & Nystrom, 1988; Weisman & Nathanson, 1985), working climate (Gardner, 1992; Gillies, Franklin, & Child, 1990; Hastings & Waltz, 1995; Kramer

Despite the extensive research-base on determinants of job satisfaction, very little attention has been given to the influence of health care reforms on job satisfaction levels. Many researchers have argued that greater attention should be given to how restructuring efforts are influencing nurses and nursing practice (Kinneman et al., 1997; Knox & Irving, 1997; Nyberg, 1990; Shindul-Rothschild et al., 1996; Way, 1995). An important research focus is to identify the most significant determinants and correlates of job satisfaction within a rapidly changing health care environment.

**Problem Statement**

Although most would agree that reforms are needed to contain costs, there is no consensus on the best strategies for restructuring of the health care
system. Traditionally, hospitals were managed under a hierarchical structure with departmental functions. When the focus shifted to program management, a multidisciplinary, patient-centred approach predominated with program managers facilitating staff activities in different clinical jurisdictions (Chams & Smith Tewksbury, 1993; Leatt et al., 1994; Monaghan, Alton, & Allen, 1992).

The resulting managerial restructuring has challenged many nursing traditions (White & Yates, 1994). Most importantly, there is dearth of research findings on how health care reforms are influencing patient/provider outcomes. In particular, there is limited insight into how work life conditions and quality of care are being affected by the stress of job insecurity, changes in role expectations, and new knowledge/skill requirements needed to work in an environment that is becoming increasingly complex (Dropleman & Thomas, 1996; East & Robinson, 1994; Effken & Stetler, 1997; Hastings & Waltz, 1995; Knox & Irving, 1997; Mara, 1993; Morris et al., 1994).

In Newfoundland, hospital services in the St. John's Region were consolidated under the Health Care Corporation (HCC) in 1995 (Davis & Tilley, 1996). The HCC administers seven tertiary and secondary care facilities; the children's hospital and one adult acute care hospital will be closed and their services integrated with remaining acute care hospitals. In April of 1996, program management was also implemented and involved clinical integration of specialized services across hospital sites.
The Association of Registered Nurses of Newfoundland (ARNN) commissioned two surveys, one qualitative and the other quantitative, to investigate nurses' perceptions of the impact of health care reforms. The ARNN surveys were conducted during downsizing but prior to managerial restructuring. The qualitative findings indicated that the majority of nurses were very negative about system changes (i.e., staff reductions, increased workload demands, and greater role responsibilities) and the impact of downsizing on the quality of care, professional practice, and job satisfaction (Way, 1994). In a follow-up study of a stratified random sample of nurses, Way (1995) reported that most respondents viewed workplace and quality of care concerns more negatively than safety concerns and professional issues. Further, nurses working in acute care viewed the overall impact of reforms more negatively than their counterparts in other settings.

With the majority of nurses working in acute care settings within the St. John's area, this group has been subjected to the most extensive restructuring efforts in the province. Although the ARNN studies provide useful information on initial reactions to system changes, there is no comparable data on nurses' levels of job satisfaction and perceptions of the impact of reforms following the implementation of program management. The present study was designed to address these concerns within the theoretical framework of the proposed Conceptual Model of Job Satisfaction (CMJS).
The CMJS is based on the integrated causal model of voluntary turnover for nurses developed by Mueller and Price (1990). The Mueller and Price model identifies a number of factors that influence turnover behaviour. These factors include determinants (i.e., workplace conditions, environmental constraints, and employee characteristics), intervening variables (i.e., job satisfaction, organizational commitment, and intent to stay), and correlates (i.e., demographic and work-related variables). Because intervening variables also reflect intermediate outcomes, the CMJS is designed to examine the impact of select determinants and correlates on job satisfaction. The factors selected for investigation in the current study are outlined in the research questions.

**Research Questions**

The study was designed to answer the following research questions:

1. What are the levels of job satisfaction of nurses working in acute care settings?

2. Is there a significant change in nurses' perceptions of the impact of health care reforms following implementation of program management in select acute care settings?

3. Is there a significant relationship between nurses' perceptions of workplace conditions and their level of job satisfaction?
4. Is there a significant relationship between nurses' perceptions of professional issues and their level of job satisfaction?

5. Is there a significant relationship between nurses' perceptions of safety concerns and their level of job satisfaction?

6. Is there a significant relationship between nurses' perceptions of quality care concerns and their level of job satisfaction?

7. Is there a significant relationship between nurses' perceptions of health care reforms and their level of job satisfaction?

8. Is nurses' job satisfaction a function of select demographic (age and education) and work-related (area of employment, employment status, nursing experience, and current position tenure) variables?

9. Which determinants and correlates investigated in this study best predict job satisfaction?
CHAPTER 2

Literature Review

An understanding of the impact of health care reform on nurses working in tertiary care requires insight into key factors influencing quality of care and provider/patient outcomes. The literature review is divided into three major sections. The first section presents an overview of key factors influencing quality outcomes. Special consideration is given to structure and process factors, and organizational change. The second section summarizes research findings on key determinants and correlates (i.e., demographic and work-related characteristics, and work environment) of nurses' job satisfaction. The final section presents a brief summary of the conceptual framework for this study.

Factors Influencing Quality Outcomes

Concerns about whether quality is being sacrificed for cost-efficiency have surfaced in response to organizational downsizing within health care systems. Some authors (e.g., LaRochelle, 1989; Nyberg, 1990; Way, 1995) have argued that economic issues are challenging nurses' abilities to deliver quality care from a caring perspective. With caring viewed as an essential component of quality nursing care (Benner & Wrubel, 1988; Nyberg, 1990; Shiber & Larson, 1991; Watson, 1997), it is important to have supportive organizational and professional structures to achieve caring and quality

Structure, Process, Outcome

Quality is a nebulous concept that is fraught with conceptual and measurement difficulties. Despite these limitations, there is general consensus on the important influence of structure and process factors on quality of patient and health care provider outcomes. This section reviews some of the theoretical and research findings on the relationships among structure, process, and outcome variables.

Theoretical perspectives. Within the traditional quality assurance model (Donabedian, 1988), quality is identified as an essential attribute of health care. Quality of care is assessed in terms of the health care system's ability to achieve projected health outcomes. According to this model, evaluation of the separate and interactive effects of structure (i.e., human and material resources, and organizational structure) and process (i.e., technical care, interpersonal care, and amenities of care) on outcomes (i.e., patient and health care provider) becomes the basis for determining overall quality. Donabedian emphasized that without staff commitment to quality and pride in accomplishing it, there can never be an organizational structure or sufficient resources to safeguard quality.
Similar to Donabedian, Bauman (1991) and Meisenheimer (1991) argued that adequate understanding of how quality outcomes are achieved, as well as identifying possible problems and solutions, requires information on the impact of process and structural factors.

Peters (1991, 1995) argued that the philosophical shift in health care management combined with the drive to contain costs requires a reconsideration of the parameters for measuring quality care. Peters (1995) presented an organizational framework, guided by an interactive paradigm, that encompasses informational systems for data collection and feedback as well as continuous quality improvement (CQI) systems. The model proposes that quality care (i.e., professional, consumer, and shared outcomes) is dependent upon the presence of a shared vision (i.e., organizational and health care providers' commitment to excellence in professional standards and care guidelines), and mechanisms (i.e., informational and CQI systems) to ensure ongoing monitoring and improvement of standards and guidelines. What is important for models of care, like the one proposed by Peters (1995), is that quality outcomes are both professional and client-based.

Penchansky and Macnee (1993) conducted a literature review and interviews with staff from six large health care facilities in five American states to identify parameters of management strategies useful for promoting total quality improvement (TQI). The findings revealed conceptual overlap among different
strategies (i.e., quality assurance, risk management, and utilization review), confusion about the scope of activities and possible relationships among strategies, and difficulty discerning how strategy activities were linked to quality outcomes and cost controls. Penchansky and Macnee concluded that a reconceptualization of the basic concepts and activities of management strategies was needed. The proposed framework for an excellence-pursuing process consists of three major components: delivery attributes (i.e., appropriateness of care, proficiency of care, coordination of aspects of the care process, amelioration efforts to correct negative clinical outcomes, and patient satisfaction with care), essential processes (i.e., ongoing clarification and upgrading of goals, performance standards and measures; and, maintaining change performance), and activities (i.e., proactive and reactive to promote excellence in performance).

Despite the growing recognition of the importance of outcomes as indicators of quality of care, Jennings and Staggers (1998) argued that problems exist with both objective (i.e., outcomes management and outcomes research) and subjective (i.e., clinical judgments) approaches to monitoring outcomes. The increased potential for inaccurate data, compromised analysis, and erroneous conclusions were attributed to conceptual ambiguity over outcome terms (e.g., poorly defined terms with lack of clear differentiation among them, absence of clear relationships among key terms, etc.). This conceptual
confusion also has the potential to impede meaningful practical application of research findings. The authors emphasized that greater attention must be given to process (i.e., performance) and structure (i.e., resources) in order to improve care delivery and maximize patient and provider outcomes. However, unless greater conceptual clarity is achieved, the complexity of relevant concepts combined with diverse intradisciplinary and interdisciplinary meanings will continue to block the utilization of research and practice-based data.

**Empirical support.** In a comparative analysis of a proportionate subsample \((N = 16)\) of magnet hospitals (i.e., reputation for quality nursing care, acceptable RN staffing patterns, favourable work environments, and low turnover rates) dispersed throughout the United States, Kramer and Schmalenberg (1988a, 1988b) investigated factors that were responsible for successful recruitment and retention of nurses. Information on characteristics of excellence were derived from a number of sources: (a) individual and group interviews with staff nurses \((n = 800)\), head nurses \((n = 273)\), clinical experts \((n = 225)\), assistant and associate directors \((n = 102)\), and chief nursing executives \((n = 16)\), (b) written documentation (e.g., nursing care plans, publications, etc.), and (c) observational sessions (e.g., staff meetings). Study findings indicated that organizational fluidity, facilitating action initiatives at the staff nurse level, and informal communication channels between staff and managers were key attributes of magnet hospitals. Additional attributes included organizational and
staff commitment to the values associated with high quality care; an environment that fostered and supported autonomy, empowerment, and innovation; a climate of respect and caring supported by a network of continuous information flow about latest developments, patient status, and unit/individual performance; visionary, enthusiastic nursing leaders who were well-educated, highly visible, and accessible; and decentralized structures with limited administrative and supervisory layers. The authors concluded that magnet hospitals possessed nursing leadership quality that brought out the best in individual employees while simultaneously demonstrating respect and caring. This approach to management resulted in more satisfied and experienced nurses at the bedside, and ultimately high quality care.

As part of a follow-up study of magnet (n = 16) and comparison (n = 8) hospitals, Kramer and Hafner (1989) examined the influence of shared value systems on job satisfaction and perceived conduciveness of the environment for quality nursing care in a random sample of staff nurses (n = 2, 297), head nurses (n = 308), clinical experts (n = 224), and top managers (n = 130). A researcher-designed instrument, Nursing Work Index (NWI), assessed four content domains: value/importance of factors influencing staff nurse job satisfaction and perceived productivity; job satisfaction; and perception of environment conduciveness for quality nursing care. The authors reported that the NWI subscales evidenced strong internal consistency (i.e., alpha = .92, .93,
.89, and .90) and criterion-related validity with turnover rates (r = .95). The findings indicated that head nurses, clinical experts, and top managers had significantly higher work values for staff nurses than staff nurses had for themselves. However, no significant relationship was found between the degree of congruence in work values for staff nurses and each subgroup (i.e., head nurses, clinical experts, and top managers) and staff nurses' job satisfaction or perceived productivity. Further, when work value congruence scores for hospital subgroups were combined, higher hospital congruence scores were significantly associated with lower job satisfaction and perceived conduciveness of the environment for promoting quality care. Finally, comparison hospitals had higher congruence scores and lower job satisfaction and perceived productivity than magnet hospitals.

Dunham and Fisher (1990) conducted qualitative interviews with a purposive sample of hospital nurse executives (N = 85) to identify and describe characteristics of excellent nursing leadership. Study findings on key characteristics of excellent nursing leadership, necessary for achieving quality patient and nurse outcomes, are similar to those identified by Kramer and Schmalenberg (1988a, 1988b).

In a preliminary study to a larger project, Aiken et al. (1994) compared magnet (n = 18) and non-magnet hospitals (n = 8), on nurse autonomy, control over the practice setting, and relations with physicians. Three NWI subscales
assessed the variables of interest in magnet hospitals included in the Kramer and Hafner (1989) study and comparison hospitals in the current study. The findings demonstrated that magnet hospitals had significantly higher autonomy, control, and good nurse-physician relations than non-magnet hospitals (p < .0001).

In a larger study of magnet hospitals (n = 39) and a matched sample of control hospitals (n = 195), Aiken et al. (1994) investigated mortality rates, skill mix, and nurse-patient ratios. After accounting for a number of organizational characteristics in the analysis, magnet hospitals demonstrated significantly lower mortality rates and higher ratios of registered nurses to total nursing personnel or nurse/patient ratios than matched-controls. However, skill mix and nurse/patient ratios did not affect mortality rates. Based on the results of the preliminary study, the authors conjectured that the differences observed in mortality between magnet and non-magnet hospitals may be a function of the organization of nursing care.

Organizational Change

As providers of health care, nurses are expected to strive towards high quality standards. The studies reviewed in this section examine the impact of downsizing and managerial restructuring on patient/provider outcomes. Study findings on the impact of downsizing suggest that increased nurse staffing levels
and skill mix are associated with higher quality outcomes (i.e., caring attitudes and behaviours, patient complications, work environment, length of hospital stay, and nursing practice standards) and lower costs. There is also evidence to suggest that managerial restructuring has both positive and negative impacts on provider outcomes (e.g., job satisfaction, satisfaction with patient care activities, attitudes toward organizational change, staff empowerment, etc.).

**Downsizing.** In a descriptive correlational study, Nyberg (1990) investigated the relationship between caring and economics in a stratified random sample of nurses \((N = 135)\) from seven hospitals in a western state of the United States. The Nyberg Caring Assessment Scale measured caring attributes on four scales (i.e., importance, actual-use, supervisor-use, and changes within past five years), and caring behaviours with the Care-Q tool. Total nursing hours per patient day and nursing hours adjusted by case-mix (i.e., adjusted for patient acuity) assessed economics. High reliability scores were generated for the caring subscales. The findings indicated that most participants viewed caring attributes as important, used them often, believed supervisors used them less often than staff nurses, and perceived no change in frequency of use in the past five years. Further, a greater number of nursing hours (i.e., adjusted hours) was significantly associated with higher caring scores. Because of the low response rate and geographic limitations, Nyberg recognized the need for further research to support instrument reliability and the
direction and strength of the association between economics and caring.

In a descriptive study of surgical patients (N = 132) in an acute care hospital, Behner et al. (1990) investigated the effects of staffing levels, patient acuity, and complications on length of stay and costs. Staffing levels were assessed in terms of a labour efficiency index (i.e., ratio of recommended to actual hours). Patient acuity was measured by the Rush-Medicus patient classification instrument, and patient complications were identified from an audit of medical records. The findings indicated that when staffing levels were 20% below recommended levels, there was a 30% increase in the probability of complications. Further, patients who experienced complications had longer hospital stays (i.e., an average of 3.5 days) than those without complications. Finally, the additional costs associated with patient complications outweighed the savings gained from under staffing. The authors acknowledged that because cost/quality ratios may vary across institutions, appropriate models should be used to establish threshold levels.

Prescott (1993) conducted an extensive review of studies dealing with the impact of nursing on patient outcomes and the costs of hospital care. Based on this analysis, it was determined that nursing skill mix (i.e., higher percentage of registered nurses to total nursing personnel) was consistently associated with reduced hospital mortality rates. Further, hospitals with nursing case management systems had shorter lengths of stay and lower costs per patient.
Because the empirical evidence suggests that nursing has a positive impact on quality outcomes and cost-containment, Prescott argued that costs should not be the sole determinant of nurse staffing levels and skill-mix, especially in a system undergoing major reforms.

In 1994, the Association of Registered Nurses of Newfoundland (ARNN) conducted a qualitative survey of nurses' (N = 347) perceptions of the impact of health care reforms in Newfoundland. The ARNN Health Systems Changes questionnaire was used to assess attitudes towards health care reforms, negative changes experienced in the work environment, impact of negative changes on patient care and nursing practice, and the potential for positive changes or opportunities. Following an analysis of survey responses, Way (1994) reported that most respondents (86.5%) found the demands of caregiving stressful and perceived system changes in a negative light. More specifically, staff reductions, overwhelming workload demands, and increased role responsibilities were identified as having a negative impact on job satisfaction, quality of patient care, and professional practice. The findings also suggested that workplace issues outweighed professional ones, and quality of care was more problematic than safety concerns. Despite the overall negative perceptions, some respondents (42.4%) identified positive aspects of change (i.e., improvements in resource utilization, health care delivery, and innovative roles and opportunities). The author acknowledged the restrictiveness of study
findings due to the low response rate (6.9%) and non-representative sample.

Using a descriptive, correlational survey design, Way (1995) obtained baseline data on overall perceptions about the impact of health care reforms from a stratified random sample ($N = 333$) of staff nurses and nurse managers in Newfoundland. A researcher-developed instrument, the Impact of Health Care Reform Scale (IHCRS), assessed perceptions of health care reform, quality of health care and safety concerns, professional opportunities, and workplace conditions. The IHCRS was found to be reliable and valid. Study findings indicated that most respondents were indecisive (i.e., neither negative nor positive) about the overall impact of health care reforms. Comparatively, nurses viewed professional issues, safety measures, and recent reforms more positively than the quality of health care and workplace conditions. The findings on the dominance of workplace and quality of care concerns are consistent with those reported by Way (1994). Nurse characteristics were also found to impact perceptions of recent reforms (i.e., more positive views by nurse managers, older, and higher educated nurses), quality care, professional opportunities, and workplace conditions (i.e., more positive views by nurse managers, older, more experienced, and higher educated nurses), and safety measures (i.e., more positive views by nurse managers, older, and more experienced nurses).

Using a descriptive survey design, Shindul-Rothschild et al. (1996) examined perceptions of downsizing and restructuring, quality of care, and
patient/provider outcomes in a non-probability sample (N = 7, 355) of registered nurses (RNs). The American Journal of Nursing (AJN) Patient Care Survey was used to assess changes in organizational structure (e.g., services, bed/unit closures, staffing levels, staff and management reductions, etc.), process (e.g., patient teaching/counseling, basic care, documentation, consultation, involvement in decision-making, etc.), and outcomes (e.g., patient-related - acuity, length of stay, complications, etc.; nurse-related - injuries, harassment, intent to stay in nursing, etc.). With regard to key structural changes, the majority of respondents reported increased unit/bed closures (55.9%), reduction in RNs providing direct patient care (60.2%), increased patient assignments (65.5%) and cross-training of nursing staff (59.4%), and increased patient acuity (76.7%). Most respondents also identified significant changes in nursing care delivery: less time to spend teaching (72.8%), to provide comfort (73.5%) and basic care (68.5%), to ensure continuity of care (55.2%), and to document care (65.9%). The majority also indicated that they were not involved in decision-making regarding staffing (79.9%) or product selection (69%). Significant changes were also noted in a number of patient outcomes: increase in readmissions (55.1%) and patient/family complaints (54.9%), and decrease in length of stay (65.9%). Finally, the majority of nurses indicated that care quality was below professional standards (56.8%).

Using a longitudinal design, Blegen et al. (1998) investigated the
relationship between nurse staffing and patient outcomes on 42-inpatient units of
a large university hospital over a one year period. Nurse staffing was assessed
in terms of total hours of care (i.e., hours of direct care per patient day for all
nursing personnel divided by patient days) and RN proportion (i.e., RN hours of
direct care per patient day divided by the total hours per patient day). Data on
patient outcomes were tabulated for each unit on patient days of care; rates of
medication errors, falls, decubiti, urinary tract and respiratory infections, and
deaths; patient/family complaints; and patient acuity levels. Study findings
indicated that greater patient acuity and total hours of care were significantly
correlated with each other, as well as greater rates of decubiti, urinary
tract/respiratory infections, patient/family complaints, and deaths. Further, a
higher proportion of RN hours of care was significantly associated with greater
patient acuity, total hours of care, and infection and death rates. Conversely,
greater patient acuity and higher RN proportions were significantly associated
with lower rates of patient falls. Due to the presence of curvilinear relationships
between RN proportion and several outcome variables, a dummy variable was
created for the upper 25% of RN proportion for multiphase regression. During
regression analysis with medication errors as outcome, patient acuity, RN
proportion, and the dummy variable (i.e., more than 87.5% RN proportion)
combined to account for 11% of the explained variance. Significant regression
models for other outcome variables included: (a) infection - patient acuity
accounted for 31.2% of the explained variance; (b) decubiti - RN proportion accounted for 33.9% of explained variance; (c) complaints - total hours of care and RN proportion combined to explain 18.8% of the variance; and (d) death - the dummy variable accounted for 41.1% of the explained variance.

**Managerial restructuring.** Using an action research design, East and Robinson (1994) investigated managerial and nursing staff perceptions of quality initiatives in a district general hospital in Great Britain. Face-to-face interviews were used to develop a data-base on senior managers and nursing staff attitudes toward the change process. A profile of factors influencing change at the unit level was constructed from multiple data sources (i.e., interviews, participant-observations, and document analysis). The Occupational Stress Indicator measured the level of job-related stress of the nursing staff. Study findings indicated that senior nurses had high job-related stress (i.e., limited control over organizational changes, and structural barriers to desired change), felt left out of decision-making, were frustrated with attempts to deliver patient-centred care, and discounted the effectiveness of inservice training and resource-management initiatives. Further, staff nurses were not resisting change, as perceived by the managers, but rather strongly supported the need to improve professional standards and deliver patient-centred care.

In a descriptive, prospective study, Morris et al. (1994) investigated the impact of a program management and information resource strategy on staff
working in a long-term care hospital in Toronto at 6-months ($N = 77$) and 12-months ($N = 126$). Surveys and focus group sessions were used to collect data on perceived changes in the quality of care delivery, professional relationships and interactions, and resource issues (i.e., staff satisfaction, career development, recruitment, and retention). The findings indicated that a significant percentage of staff members reported improvements in the quality of patient care (66.7%), and interdisciplinary co-ordination (43%) and interactions (50%). Further, staff members felt they spent as much or more time with direct patient care activities (66%), and were generally satisfied with the time spent in direct care (49%). Finally, the majority indicated that they were generally satisfied with their jobs (78%) and were more aware of professional practice standards (60%). The authors failed to provide information on study instruments but did acknowledge data limitations (e.g., absence of program-based data and baseline data, or valid data bases for comparison purposes, etc.) which severely restricts the generalizability of the findings.

Hastings and Waltz (1995) reported on the results of a longitudinal, prospective study which investigated nurses’ perceptions of job satisfaction, organization commitment, intent to leave, and perceived effectiveness of the work environment before ($N = 1100$) and 2-years after ($N = 1200$) implementation of a shared governance management model in facilities within the University of Maryland Medical System (UMMS). Perceptions of employment
features and the work environment were assessed with the UMMS Features Scale, job satisfaction with the McCloskey-Mueller Satisfaction Scale (MMSS) and the General Job Satisfaction (GJS) Scale, and organizational commitment with the Organizational Commitment Questionnaire (OCQ). Intent to leave was measured with the Michigan Organizational Assessment Questionnaire and partnership functioning at the unit level with the Professional Practice Perceptions (PPP) Scale. The authors reported that all instruments had established reliability and validity. There were no significant differences detected in nurses' job satisfaction, turnover intent, and organizational commitment between time periods. Study participants were generally positive about organizational changes (i.e., partnership functioning and system of care delivery at the unit level) and satisfied with their jobs 2-years post-implementation.

In a secondary analysis of an evaluation data-base on the Professional Practice Partnership Model implemented at UMMS, Hastings (1995) compared critical (n = 188) and general care (n = 243) nurses' perceptions of the impact of organizational change. The effectiveness of participating in work group operations was assessed on three dimensions (i.e., staff involvement, peer involvement, and time requirements) of the PPP Scale. Support (i.e., general and educational) was assessed with two subscales constructed from relevant items of the UMMS Features Scale. Satisfaction with nurse management was
measured with a single item from the MMSS and professional practice with modified subscales of the MMSS (i.e., control/responsibility, rewards/recognition, and scheduling). Perceived quality of care was assessed with relevant items from the UMMS and the PPP Scales, overall job satisfaction with the GJS Scale, and organizational commitment with the OCQ. The findings demonstrated that critical care nurses had significantly more positive perceptions of the practice environment (i.e., care delivery system effectiveness, ability to give high-quality care, nurse-patient ratios, satisfaction with control/responsibility and nurse managers, decision-making involvement, peer support, and job satisfaction) than general acute care nurses. The ability to give high quality care surfaced as the best predictor of general job satisfaction for both groups. Decision-making involvement, satisfaction with scheduling, and peer support were also significant predictors for both groups, as well as care system effectiveness for the critical care nurses and nurse-patient ratio for their counterparts.

In a correlational study, Klakovich (1996) examined factors predictive of empowerment for nurses (N = 245) working in a tertiary care centre with an existing participatory, decentralized management style and shared governance being implemented. The culture of the practice environment (i.e., constructive, passive-defensive, and aggressive-defensive) was measured with the Organizational Cultural Inventory, connective leadership with the Achieving
Styles Inventory (ASI-Form 13), and empowerment with the Klakovich Reciprocal Empowerment Instrument. High internal consistency was reported for all instruments within the study sample. Study findings demonstrated the presence of a moderately strong constructive culture across all units, lower than average connective leadership scores for staff nurses but not nurse managers, and moderately high empowerment scores. Further, nurses high on empowerment were also more likely to be high on connective leadership, and to rate the constructive culture higher than the defensive culture. During regression analysis, constructive culture accounted for 36% of the variance in empowerment, with connective leadership and defensive culture contributing an additional 9% of the total explained variance (i.e., 45%).

Kinneman et al. (1997) used a quasi-experimental repeated-measures design to evaluate staff perceptions before ($n = 37$) and after ($n = 37$) implementation of patient-centred care on three medical units in an acute care facility. Staff satisfaction was measured with the Nurse Job Satisfaction Scale, autonomy with the Job Characteristics Inventory, and nurse-physician collaboration (i.e., communication and shared responsibility) with two ten item six-point scales. High reliability scores were reported for all instruments. The findings indicated that nurses viewed job satisfaction, communication and shared responsibility with physicians, and autonomous practice more positively at 6-months post-implementation than before the changes in care delivery.
Effken and Stetler (1997) used a formative-evaluation design to examine the ongoing impact of a patient-centred redesign program (i.e., organizational system, collaborative practice, and information system) on quality and cost outcomes in an acute care hospital. Multiple data sources (i.e., managers, staff, patients, and physicians) and methods (i.e., interviews, surveys, standardized tools, and researcher-developed items) were used to assess the degree to which innovations were actually implemented, and intermediate (i.e., staff-customer satisfaction, continuity of care, and critical role components) as well as quality and cost outcomes achieved. Study findings suggested that staff members reflected values of the innovative patient-centred system (i.e., evidence of an evolving culture), operational systems were more efficient (e.g., billing, admitting, materials delivery, etc.), and patient-related assignments were more consistent and coordinated. Although there was evidence of movement towards quality outcomes (e.g., more positive ratings of hospital services by patients; improvements in select clinical outcomes, etc.), innovations and intermediate outcomes did not achieve statistical significance with quality and cost outcomes. The authors did acknowledge the limitations of study instruments, generalizability of findings, and the importance of ongoing evaluation of change in progress.
Summary

The preceding review of research studies and theoretical perspectives indicated that numerous factors exert a separate and interactive effect on the quality of outcomes. The development of a substantive body of knowledge has been impeded somewhat due to the conceptual ambiguity on the parameters defining quality and the key factors influencing it, and the use of multiple instruments to measure quality and predictor variables. Conceptual and methodological problems have been enhanced following the introduction of another critical variable - organizational change. Studies dealing with the impact of organizational change on patient and provider outcomes, as well as the cost of care, evidenced inconsistent findings (i.e., positive and negative effects on outcomes and costs). For example, although reductions in staffing levels are cost saving measures with regard to human resources, it could have negative repercussions for quality outcomes. Further research is obviously needed to determine the cost/quality ratio.

Factors Influencing Nurses' Job Satisfaction

In studies investigating the effectiveness of health care organizations, the job satisfaction of professional staff is often used as an outcome measure of organizational effectiveness. Multiple instruments have been developed to measure job satisfaction. Despite instrument variability, there is a fair degree of
consistency on the important theoretical dimensions of job satisfaction. The situation is considerably more complex and variable with factors investigated as either determinants or correlates of job satisfaction. The following sections highlight study findings on how nurses value and experience select theoretical dimensions of job satisfaction, and how determinants and correlates (i.e., demographics/work-related and work environment) are related to job satisfaction.

Theoretical Dimensions of Job Satisfaction

There were a number of studies identified that investigated the relative importance of select theoretical dimensions of job satisfaction, as opposed to current levels of satisfaction with them. The inconsistent findings observed across some studies were due to the use of variant instruments measuring similar and different dimensions, and different work settings and sample sizes. However, study findings were fairly consistent on the differences between how nurses valued versus experienced various satisfaction components (Johnston, 1991; Kramer & Schmalenberg, 1991; Seymour & Buscherhof, 1991; Williams, 1990).

Current levels of satisfaction. Using a descriptive, correlation design, Roedel and Nystrom (1988) investigated aspects of job satisfaction in a sample of registered nurses ($N = 135$) working in a general care hospital. The Job
Descriptive Index (JDI) assessed job satisfaction on five subscales (i.e., the work itself, pay, promotional opportunities, supervision, and co-workers). The JDI was reported to have acceptable reliability and validity. The findings indicated that nurses were most satisfied with co-workers, followed by supervision, the work itself, pay, and promotional opportunities, respectively.

In a longitudinal study of registered nurses (N = 190) hired by a large midwestern hospital between 1983 and 1984, Mueller and McCloskey (1990) examined the psychometric properties of the McCloskey/Mueller Satisfaction Scale (MMSS) from data obtained at 6 months employment. Exploratory factor analysis identified eight factors to support the theoretical dimensions of the MMSS: safety rewards (i.e., extrinsic rewards, scheduling, and family/work balance), social rewards (i.e., coworkers and interaction), and psychological rewards (i.e., professional opportunities, praise/recognition and control/responsibility). Good reliability and validity were reported for the subscales and total scale. The mean factor scores suggested that participants were most satisfied with extrinsic rewards, followed by co-workers, interaction, praise/recognition, control/responsibility, professional opportunities, family/work balance, and scheduling, respectively.

In a longitudinal, prospective study of nurses' perceptions of job satisfaction, Hastings and Waltz (1995) used the MMSS to examine changes in satisfaction before (N = 1100) and 2-years after (N = 1200) implementation of a
shared governance management model. At both time periods, the mean sub-scale scores indicated that nurses were more satisfied than dissatisfied with their jobs and were consistent in their ratings of job satisfaction components. The findings also indicated that nurses were most satisfied with co-workers, followed by scheduling, interaction, extrinsic rewards, praise/recognition, control/responsibility, professional opportunities, and family/work balance, respectively.

In a methodological study, Whitley and Putzier (1994) evaluated the psychometric properties of the Work Quality Index (WQI) in a sample of acute care nurses ($N = 245$). The WQI was designed to measure satisfaction with quality of work (i.e., autonomy, work worth, professional relationships, role enactment, and benefits) and the work environment (i.e., professional opportunities, patient-centred care, recognition and praise, involvement in decision-making). High reliability and validity scores were reported for the subscales and total index. The findings indicated that study participants were most satisfied with autonomy, followed by relationships, benefits, work worth, role enactment, and the work environment, respectively.

**Relative importance versus actual.** In a descriptive study, Williams (1990) investigated job satisfaction in a convenience sample of medical/surgical ($n = 20$) and critical care nurses ($n = 17$). The Index of Work Satisfaction (IWS) assessed the importance of, and current level of satisfaction with, six components of job satisfaction (i.e., pay, autonomy, interaction, professional
status, organization policies, and task requirements). Strong reliability scores were reported for the IWS subscales and total scale in this study. Study findings indicated that both groups of nurses were only slightly satisfied with their jobs, and did not differ significantly on their ratings of any job satisfaction components. For the total group of participants, the relative importance of the components were ranked in descending order as follows: pay, autonomy, professional status, interaction, organizational polices, and task requirements. With regard to current levels of satisfaction, the components were ranked from high to low as follows: professional status, autonomy, interaction, task requirements, organizational policies, and pay. The small, non-probability sample was a significant study limitation and restricts the generalizability of the findings.

In a descriptive study, Johnston (1991) examined job satisfaction in a sample of registered nurses (N = 385) from a large hospital in southwestern United States. The IWS was used to assess the relative importance of, and satisfaction with, components of job satisfaction. With regard to the relative importance of each job satisfaction component, the findings indicated that pay was most valued, followed by professional status, autonomy, interaction, task requirements, and organizational policies, respectively. With regard to current levels of satisfaction, the rankings in descending order were as follows:
In a qualitative study, Seymour and Buscherhof (1991) surveyed a random sample of nurses from the American Nurses Association to identify factors influencing nursing careers. A number of respondents ($n = 252$) provided written comments on areas of work most valued and providing the most satisfaction and dissatisfaction. Following tabulation of the frequency counts of thematic categories, it was determined that nurses placed the greatest value on the intrinsic pleasures derived from work, professional and personal development opportunities, and material rewards, respectively. Teamwork, control, respect, and understanding were also highly valued. With respect to current areas of work providing the most satisfaction, involvement in direct patient care and self-fulfilment (e.g., personal growth, self-confidence, etc.) received the highest ratings. Many sources of dissatisfaction were identified by the nurses. The most important, in order of priority, included: structural work problems (e.g., stress, workload, scheduling, shortages, safety, support from administration, etc.), remuneration and benefits (i.e., inadequate compensation based on skills and responsibilities), gender role issues (e.g., restrictions, recognition, discrimination, etc.), education preparation, and lack of respect and recognition.

In a descriptive survey, Kramer and Schmalenberg (1991) investigated...
job satisfaction in a geographically dispersed sample of nurses working in magnet (n = 939) and non-magnet (n = 808) hospitals in the United States. A researcher-developed instrument was used to assess the importance of, and satisfaction with, five aspects of job satisfaction (i.e., organizational structure, professional practice, management style, quality of leadership, and professional development). With regard to relative importance, both magnet and non-magnet nurses rated organizational structure most important and professional development least important. While both groups were most satisfied with professional practice (i.e., work relations, job independence, system of nursing care, opportunity for specialization, and importance/significance of nursing), magnet nurses were least satisfied with management style (i.e., climate, milieu, participative management, and visibility/accessibility of leaders) and non-magnet nurses with quality of leadership (i.e., leader behaviours, responsiveness/expectations of leaders, quality of nurse managers, and formal/informal interaction opportunities). The findings also indicated that magnet nurses were significantly more satisfied with all aspects of job satisfaction than non-magnet nurses (p < .001).

Using a descriptive, correlation design, Goodell and Coeling (1994) explored job satisfaction in two stratified random samples consisting of registered nurses and licensed practical nurses (n₁ = 150; n₂ = 67) from one acute care facility. The IWS measured job satisfaction. With regard to the
relative importance of each component of job satisfaction, participants (n = 150) ranked pay the highest, followed by professional status, autonomy, interaction, task requirements, and organizational policies, respectively. Within the smaller sample (n = 67), participants' levels of satisfaction with each component were as follows, in descending order: interaction, autonomy, professional status, organizational policies, pay, and task requirements.

**Work Environment**

From a review of the literature, it was determined that numerous environment-related variables have been investigated as potential determinants of job satisfaction. Several studies found support for the positive effect of autonomy (e.g., influence, responsibility, personal control, sense of power, etc.), climate (e.g., conflict, warmth, support, leadership style, nursing image, adequacy of staffing, etc.), communication (e.g., integration, feedback, etc.), and organizational commitment (e.g., loyalty, tenure, etc.) on job satisfaction.

In a descriptive, prospective study, Weisman and Nathanson (1985) investigated the relationship between environmental factors, client outcomes, and provider satisfaction in a sample of nurses (n = 344) and teenagers (n = 2,900) in 77 family planning clinics. Data were collected on client satisfaction with contraceptive services during face-to-face interviews conducted immediately after clinic appointments, and client contraceptive-use during
telephone contacts at 6 and 12 months. Researcher-developed items measured job satisfaction (i.e., relationships, work content, supervision, and resources), interdisciplinary conflict, and nursing influence with clinic policies and activities. Reliability scores were only reported for the job satisfaction scale (alpha = 0.89). The findings indicated that job satisfaction was significantly correlated with interdisciplinary conflict ($r = -0.49$), nurses' mean age ($r = 0.47$), nursing influence ($r = 0.32$), and client satisfaction ($r = 0.24$). During path analysis, the most significant predictors of job satisfaction were staff conflict, nurses' mean age, and nursing influence, respectively.

In a longitudinal survey, Blegen and Mueller (1987) tested multivariate, causal models of job satisfaction with a sample of registered nurses ($N = 370$) from five acute-care hospitals. A questionnaire developed by Price and Mueller (1986) assessed satisfaction in terms of 13 theoretical determinants (i.e., opportunity, routinization, autonomy, job communication, social integration, distributive justice, promotional opportunity, motivation, pay, workload, general training, kinship responsibility, and unit size). Respondents were generally more satisfied than dissatisfied with their jobs at both time periods, and initial satisfaction levels were strongly predictive of satisfaction eight months later. Although most determinants correlated with overall satisfaction, with the exception of motivation and unit size, only six (i.e., routinization, promotional opportunity, distributive justice, kinship responsibility, opportunity, and workload)
surfaced during LISREL analysis to explain 39% of the variance in overall satisfaction. Following the addition of demographic variables, three determinants (i.e., routinization, distributive justice, and workload) and two correlates (i.e., age and day shift) combined to explain 43% of the variance.

Roedel and Nystrom (1988) explored the relationships among job characteristics and different facets of job satisfaction in a sample of registered nurses (N = 135). The Job Diagnostic Survey (JDS) measured job characteristics in five domains (i.e., skill variety, task identity, task significance, autonomy, and job feedback). The JDI assessed job satisfaction. Acceptable reliability and validity have been reported for both instruments. The findings demonstrated significant positive relationships between three job features (i.e., task identity, autonomy, and feedback) and all dimensions of job satisfaction (i.e., the work itself, pay, promotional opportunities, supervision, and co-workers). The strongest correlation was observed between autonomy and satisfaction with supervision (i.e., high autonomy, greater satisfaction with supervision).

In a descriptive survey study, Bush (1988) examined how locus of control and powerlessness affected the job satisfaction of registered nurses (N = 145) from six hospitals. The Rotter Internal-External Scale measured locus of control, the Health Care Work Powerlessness Scale, powerlessness, and the JDI, job satisfaction. All study instruments are reported to have good reliability and
validity. Powerlessness and locus of control depicted moderate to low, negative correlations with job satisfaction (i.e., nurses with greater internal control and those with less feelings of powerlessness were more satisfied with their jobs). During regression analysis, only powerlessness entered the equation to account for 28% of the explained variance in job satisfaction.

In a descriptive, survey study, Gillies et al. (1990) examined the relationship between organizational climate and job satisfaction in a sample of nurses (N = 35) employed by an urban teaching hospital. The Organizational Climate Description Questionnaire was used to measure organizational climate in nine dimensions (i.e., structure, reward, risk, warmth, support, standards, conflict, and identity). The IWS assessed job satisfaction. Good reliability scores have been reported for most subscales of both instruments. The findings indicated that greater job satisfaction was associated with organizational climates rated high in responsibility, warmth, support, and identity. The authors caution against generalizing the findings due to the small sample and use of one setting which supports lengthy job tenures.

Using a longitudinal design, McCloskey and McCain (1987) investigated the relationships between job satisfaction, organizational commitment, and professionalism in a sample of newly employed registered nurses (N = 150) at a large midwestern hospital. Job satisfaction was measured with the McCloskey Reward/Satisfaction Scale (MRSS), organization commitment with the
Organizational Commitment Questionnaire (OCQ), professional attitudes with the Hall Professionalism Scale, and professional behaviours with the Revised Kramer Professionalism Scale (RKPS). Strong reliability values have been reported for all study instruments. The findings indicated that satisfaction, professional attitudes and behaviours, and commitment declined in the first 6-months of employment but remained steady for the next 6-month period. Job satisfaction depicted low to moderate, positive correlations with professional attitudes and moderate to strong, positive correlations with commitment at one and 12 months employment.

In a follow-up study, McCloskey and McCain (1988) examined the relationship between job satisfaction and job performance in a sample of registered nurses (N = 150). Head nurses assessed staff nurse performance at 12-months post-employment with the Six Dimension (6-D) Scale of Nursing Performance (i.e., leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communication, and professional development). Staff nurses also completed self-evaluations at 12-months with a hospital-based form comprised of five content areas (i.e., clinical practice, administration, education, research, and professional responsibilities). The authors reported high reliability scores for all subscales of the 6-D Scale. Job satisfaction was measured with the MRSS. The findings demonstrated a low, positive correlation between staff nurses' 6-month general job satisfaction score
and performance at 12-months. Further, satisfaction with social relationships correlated most highly with performance, and satisfaction with the supervisor correlated with five out of six of the performance measures.

In a subsequent study, McCloskey (1990) investigated the interactive effect of autonomy (control over work activities) and social integration (relationships with co-workers) on job satisfaction, commitment, motivation, and intent to stay at three time periods: 1-month (n = 320), 6-months (n = 189) and 12-months (n = 138). Autonomy was measured with the Job Characteristics Inventory and social integration by a researcher-developed eight-item scale. Job satisfaction and work motivation were assessed with relevant subscales of the Job Diagnostic Survey. Organization commitment was measured with the OCQ and intent to stay with the McCain Behavioural Commitment Scale. High internal consistency scores were reported for all study instruments. The findings indicated that nurses with low autonomy and social integration were significantly different from those with other combinations of autonomy-integration interactions (i.e., high autonomy and integration, high autonomy and low integration, low autonomy and high integration) on job satisfaction at 6 and 12 months (i.e., less satisfied). The authors acknowledged the problems with generalizing study findings due to the non-probability sample and small, group sizes.

Kramer and Schmalenberg (1991) examined the relationship of job satisfaction to staff adequacy and nursing image in sample of nurses working in
magnet (n = 939) and non-magnet (n = 808) hospitals. Staff adequacy was measured on a single item with a five-point rating scale ranging from “desperately short...patient care has suffered” to “excellent”. Overall job satisfaction was measured on one item with a four-point rating scale ranging from “think it’s great” to “very dissatisfied”. With regard to nursing image, respondents were asked to rate themselves and other hospital personnel’s perception of them on a four-point rating scale ranging from “very satisfied” to “very dissatisfied” on five dimensions (i.e., bureaucratic employee; humanitarian, dedicated worker; clerk or white collar worker; physician’s handmaiden; and knowledgeable, respected professional). The findings indicated that greater overall satisfaction was significantly correlated with greater perceived staffing adequacy, self-images of knowledgeable professionals or humanitarian workers, and other-images of knowledgeable professionals.

In a longitudinal study, Gardner (1992) explored conflict and job satisfaction at 6 and 12 months in a sample of new graduate nurses (N = 63) employed by a large midwestern hospital. A researcher-developed instrument, the Perceived Conflict Scale, measured conflict. The McCloskey/Mueller Satisfaction Scale (MMSS), the revised MRSS, measured job satisfaction. High reliability and validity levels were reported for both scales. Study findings indicated that subjects had moderate levels of conflict at both 6 and 12 months
employment. Further, nurses experiencing greater conflict were generally less satisfied with their jobs.

Hastings and Waltz (1995) reported on factors influencing job satisfaction in a sample of nurses (N = 1200) working under a shared governance management model in UMMS facilities. Perceptions of employment features and the work environment were assessed with the UMMS Features Scale, job satisfaction with the MMSS and GJS Scale, organizational commitment with the OCQ, and partnership functioning at the unit level with the PPP Scale. During regression analysis, control/ responsibility, praise/recognition, scheduling, ability to give high-quality care, adequacy of nurse-patient ratio, perception of peer support, and perception of unit level management combined to explain 60% of the variance in general job satisfaction.

Using an ex post facto descriptive design, McNeese-Smith (1995) investigated the relationship between ratings of leadership behaviours and job satisfaction in a sample of staff nurses (N = 221) from a large university hospital in Los Angeles. The Leadership Practices Inventory for Self (LPI-self) and Other (LPI-other) assessed leadership behaviours (i.e., challenging the process, inspiring a shared vision, enabling others to act, modelling the way, and encouraging the heart). Job satisfaction was measured with the Job-in-General Scale. All of the study instruments were found to have high internal consistency (i.e., Cronbach's alpha). The findings demonstrated significant, positive
correlations between nurses' perceptions of managers' use of leadership
behaviours, as well as their total leadership score, and job satisfaction. During
regression analysis, "inspiring a shared vision" and "enabling others to act"
combined to explain 27% of the variance in job satisfaction scores. Because of
the high intercorrelations among the predictor variables, the author
recommended the use of causal modelling in future research studies.

In a follow-up descriptive study, McNeese-Smith (1997) used semi-
structured interviews to investigate perception of factors influencing job
satisfaction in a purposive sample of nurses (N = 30) from hospital units
reflecting high and low job satisfaction and organizational commitment.
Following content analysis, the most frequently identified managerial behaviours
influencing job satisfaction included: giving recognition/thanks (43%), meeting
personal (27%) and unit (20%) needs, guiding the nurse (23%), using leadership
skills (23%), and supporting the team (20%).

**Demographic/Work-Related Variables**

Study findings have been inconsistent on the effects of demographic/
work-related variables on nurses' job satisfaction. The following review
highlights some of the key differences/commonalities identified across studies.

Blegen and Mueller (1987) investigated the interactive effects of select
demographic/work-related variables (i.e., age, experience, full-time/part-time
employment, shift assignment, and position rank) on theoretical determinants of job satisfaction in a sample of registered nurses ($N = 370$). The findings demonstrated that nurses with higher satisfaction scores were older, more experienced, worked day shifts, and held higher positions.

Conflicting findings exist on the influence of age, nursing experience, and shift assignment on satisfaction levels. Weisman and Nathanson's (1985) found that older nurses were more satisfied with their jobs than younger nurses, whereas, others (e.g., Hastings & Waltz, 1995; Williams, 1990) failed to identify a significant effect for age. Further, some studies failed to detect a significant effect for either shift assignment (Williams, 1990) or nursing experience on satisfaction levels (Hastings & Waltz, 1995; McCloskey & McCain, 1987). In a meta-analysis of 48 studies of geographically dispersed nurses ($N = 15,048$) working in different settings, Blegen (1993) found that age, but not years of service, consistently depicted small, significant correlations with job satisfaction (i.e., older nurses were more satisfied than younger nurses). In a subsequent meta-analysis, Irvine and Evans (1995) investigated correlates of job satisfaction. The total sample size varied for studies focusing on age, experience, and organizational tenure ($N = 3,603, 1,899, and 4,068$, respectively). The findings indicated a small but significant effect for all of these variables on job satisfaction.

In a descriptive survey, Wetzel et al. (1990) investigated work-related
attitudes in a stratified sample of full-time and part-time (including casual) registered nurses ($N = 634$). A number of items were used to measure select aspects of work-related attitudes (i.e., organizational commitment, professionalism, job involvement, extrinsic job satisfaction, intrinsic job satisfaction, satisfaction with immediate supervisor, difficulty leaving job, and influence on decision-making). No information was provided on instrument reliability or validity. Both groups of nurses (i.e., full and part-time) reported feeling positive about most work components, with the exception of job involvement and extrinsic job satisfaction. Further, the only significant difference observed between part-time and full-time nurses was on job involvement (i.e., greater involvement by full-time nurses). Blegen and Mueller (1987) also failed to detect significant differences between full-time and part-time nurses on job satisfaction.

Using a nonexperimental, causal modelling design, Hinshaw et al. (1987) investigated the effect of clinical settings and educational preparation on predictors of job, organizational, and professional satisfaction in a sample of registered nurses ($n = 1002$), licensed practical nurses ($n = 282$), and nursing assistants ($n = 282$) employed in 15 urban and rural hospitals. A number of instruments measured the independent variables: group cohesion - Group Cohesion Scale; job stress - Job Stress Scale; and control over practice (i.e., committee control, access to ideas, and personal resources) - Horsley and
Pelz's Scales. Satisfaction was measured with the Work Satisfaction Scale (i.e., organizational satisfaction) and the Nurse Job Satisfaction Scale (i.e., professional/occupational satisfaction). The authors reported strong instrument validity and reliability (alpha = 0.73 to 0.88). For both baccalaureate and diploma prepared registered nurses, group cohesion, job stress, control over practice, and autonomy were the strongest predictors of organizational satisfaction. Similar predictors (i.e., job stress, group cohesion, and control over practice) of organizational satisfaction surfaced for all nursing staff members (i.e., registered nurses, licensed practical nurses, and nursing assistants) working in critical care and medical/surgical units. With regard to predictors of professional job satisfaction, significant differences were observed for education level and clinical area (i.e., baccalaureate - job stress, group cohesion, autonomy, and agency experience; diploma - job stress; critical care - group cohesion and job stress; and medical-surgical - job stress and autonomy).

Inconsistent findings have been reported on the effect of clinical setting and education on job satisfaction. Some authors have reported non-significant (Williams, 1990) and significant (Hastings, 1995) differences between critical care and medical/surgical nurses (i.e., higher overall job satisfaction for those in critical care), and no significant differences based on education preparation (Hastings & Waltz, 1995). In contrast, Blegen's (1993) meta-analysis of 48
studies identified education as a significant correlate of job satisfaction (i.e., less educated nurses more satisfied than higher educated nurses).

**Summary**

It was apparent from the studies reviewed in this section that the theoretical components of job satisfaction have been used interchangeably with determinants or predictors of job satisfaction. With regard to the theoretical components of job satisfaction, study findings were fairly consistent on the most and least valued job components (e.g., Goodell & Coeling, 1994; Johnston, 1991; Williams, 1990), and nurses' tendency to differentiate between how they valued versus experienced aspects of job satisfaction (Johnston, 1991; Kramer & Schmalenberg, 1991; Seymour & Buscherhof, 1991; Williams, 1990). However, the findings were less conclusive on how work environment demographic/work-related factors affected levels of job satisfaction.

Based on a meta-analysis of 48 studies with a total of 15,048 registered nurses, Blegen (1993) concluded that job satisfaction is a complex concept that can only be explained in terms of the separate and interactive effects of many diverse factors. The analysis was restricted to studies that reported quantitative analysis and bivariate correlations, used instruments to measure job satisfaction, and included registered nurses involved in direct care. The findings indicated that job satisfaction depicted strong correlations with stress (−.61) and
organizational commitment (.53); moderate correlations with supervisor communications (.45), autonomy (.42), recognition (.42), routinization (-.41), peer communications (.36); and low correlations with fairness (.30), loss of control (-.28), age (.13), and education (-.07). The author emphasized the importance of attending to factors (e.g., lack of autonomy, poor communication, and low recognition) responsible for increased stress in the work setting as an approach to increasing nurses' job satisfaction.

Using a meta-analytic study design, Irvine and Evans (1995) examined the effect of economic, sociological/structural (i.e., job characteristics and work environment), and psychological/individual factors on job satisfaction. Study inclusion criteria were similar to those used by Blegen (1993). The findings indicated that job characteristics and work environment depicted stronger associations with job satisfaction than economic or psychological/individual factors. The strength and direction of the correlation coefficients for the sociological/structural cluster were as follows: job characteristics (routine: -.52; autonomy: .46; feedback: .38; role conflict: -.35; role ambiguity: -.33; and work overload: -.16); and work environment (supervisory relationships: .51; leadership: .51; stress: -.39; advancement opportunity: .38; and participation: .35). Pay (.23) and alternative employment opportunities (-.13) reflected economic factors, whereas, age (.16), experience (.12), and organizational tenure (.10) represented psychological/individual factors.
Discussion

The empirical evidence suggests that nurses' job satisfaction has important implications for job performance, organizational commitment, and patient satisfaction. Thus, it is vitally important that an adequate understanding is reached on the role played by key factors in promoting job satisfaction. The changing economic environment and the resulting downsizing and restructuring seems to be having a negative impact on satisfaction levels. Although there is a growing research base on perceptions of the impact of health care reform, further research is needed to identify the short and long term repercussions on provider outcomes (e.g., job satisfaction, organizational commitment, etc.).

The literature review indicated that numerous factors influence the quality of outcomes and nurses' job satisfaction. Conceptual and methodological problems may have contributed to some of the inconsistent findings observed across studies. Further research is needed to clarify theoretical and methodological issues, and, ultimately enhance the meaningfulness/accuracy of study findings.

Conceptual Framework

A number of theoretical perspectives and conceptual models have been proposed to explain how organizational characteristics (i.e., structure and process) facilitate or impede the achievement of quality outcomes (i.e., patient
and provider). Besides the broader conceptualizations, there are causal/explanatory models of turnover behaviour for nurses working in acute care facilities (Hinshaw et al., 1987; Mueller & Price, 1990; Price & Mueller, 1981, 1986). The Price and Mueller (1981, 1986) causal model has been tested with nurses, either in whole or part, by several authors (e.g., Blegen & Mueller, 1987; Irvine & Evans, 1995; Price & Mueller).

The revised integrated causal model developed by Mueller & Price (1990) incorporates economic, psychological, and sociological factors as determinants of nurse turnover behaviour. This integrated model is comprised of three variable clusters: causal, intervening, and outcome. Causal variables or determinants refer to structural aspects of the work setting (i.e., pay, routinization, autonomy, feedback, work group cohesion, work load, and task identity), environmental constraints (i.e., nurses' wait list, kinship responsibility, community participation, and perceived job opportunities), and employee characteristics (i.e., general training, work motivation, professionalism, leaving plans, publicity-friends, volition-range, volition-external, explicitness).

Intervening variables include job satisfaction (i.e., degree of contentment), organizational commitment (i.e., loyalty and attachment), and intent to stay (i.e., likelihood of staying). The outcome variable is turnover (i.e., voluntary leaving the organization).
According to this model, satisfaction, commitment, and intent to stay intervene between causal variables and organizational turnover (Mueller & Price, 1990). Thus, each intervening variable is also treated as a dependent variable or intermediate outcome. In addition to causal and intervening variables, the model accounts for the possible effects of correlates or demographic/work-related variables on turnover. However, these variables are treated as correlates rather than determinants of turnover.

A modified version of the Mueller and Price (1990) model, the Conceptual Model of Job Satisfaction (CMJS), was developed by the researcher to provide the framework for this study (see Figure 1). The CMJS is designed to represent the conceptual links between determinants, correlates, and job satisfaction. The focus is on the direct, as well as the interactive, effects of determinants and correlates (i.e., demographic/work-related variables) on job satisfaction. Three unique determinants were also incorporated (i.e., health care reform, quality care concerns, and safety concerns) and key demographic and work-related variables (i.e., age, education, area of employment, employment status, nursing experience, and current position tenure).

**Definitions**

The determinants of job satisfaction investigated in this study were restricted to work environment factors - two from the Mueller and Price (1990)
model that addressed workplace conditions and professional issues. Work environment was defined as the perceived impact of health care reforms on workplace conditions, professional issues, constraints on quality and safety, and patient and nurse outcomes (Way, 1995).

The correlates of job satisfaction included select demographic/work-related characteristics (i.e., age, education, clinical work area, full/part-time employment, nursing experience, and current position tenure). These characteristics are consistent with those used in previous research on job satisfaction (Blegen, 1993; Irvine & Evans, 1995; Mueller & Price, 1990; Price & Mueller, 1981, 1986).

The outcome variable investigated in this study was job satisfaction as defined by Mueller and McCloskey (1990). Satisfaction is defined as the extent of positive feelings about certain job components (i.e., extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility).
Figure 1. Conceptual Model of Job Satisfaction.
A descriptive correlation design was used to investigate factors influencing the job satisfaction of acute care nurses experiencing managerial restructuring. The relationships among perceptions of health care reform, professional issues, workplace conditions, quality of health care, safety concerns, demographics, and job satisfaction were also examined. This chapter provides an overview of the population, sample, procedure, instruments, ethical considerations, data analysis, and study limitations.

**Population and Sample**

The target population was all registered nurses (RNs) working in direct patient care in acute care settings. To facilitate comparison of study findings with those reported in the literature, the accessible population was restricted to all RNs working on critical care, medical, and surgical units of three adult acute care hospitals in St. John’s, Newfoundland. The accessible population was comprised of 647 members.

Given the study mandate to survey nurses’ perceptions during the early stages of program management implementation, the decision was made to seek input from the entire accessible population. The final sample size of 298 subjects provided a response rate of 46%. This sample size exceeded the
projected 126 to 159 range as determined by power analysis (Polit & Hungler, 1995). That is, a sample of 126 was needed for correlation tests (i.e., power of .80, estimated effect of .25, and alpha of .05) and 159 for analysis of variance with 3-groups (i.e., power of .80, medium effect, and alpha of .05).

**Procedure**

Preliminary steps were taken to facilitate data collection. Telephone contacts were initiated with the program managers of targeted clinical areas (i.e., surgery, critical care, and medicine) at three hospitals under the St. John's Health Care Corporation. Following initial contact, formal letters were sent to the program managers explaining the study and requesting their support (i.e., informing divisional supervisors and identifying mechanisms for questionnaire distribution) (see Appendix A). Prior to commencing data collection, meetings were held with all divisional managers to address any questions or concerns and identify appropriate places for nurses to access the questionnaires.

Information about the study was also conveyed to potential subjects via notices (see Appendix B) posted in areas frequented by nurses (i.e., main desks and lounges on units, and locker rooms). These notices included information on where to obtain questionnaires, the location of locked drop-off boxes for completed questionnaires, and the researcher's telephone number if additional information was needed about the study.
During the last week of October, 1996, questionnaires and attached envelopes were placed in predetermined areas on most study units. The only exception was the inclusion of questionnaires with the cheques of critical care nurses at one study site, as requested by the program manager. Follow-up contact was made with divisional managers after two weeks of data collection due to the low response rate (i.e., about 20%). Data collection was terminated in early December, 1996 with a total of 298 completed questionnaires returned.

**Instruments**

Data were collected with three research instruments. Two of the instruments were developed by other researchers. One instrument was identified from the relevant literature and the other from the Association of Registered Nurses of Newfoundland. Permission for instrument use (see Appendix C) was obtained from the appropriate individuals/agencies. The third instrument was developed by the researcher for the current study.

**Impact of Health Care Reform Scale (IHCRS)**

The IHCRS is a 25-item rating scale developed to measure nurses’ experiences with changes in the health care system (see Appendix D). The IHCRS consists of five subscales that address the following domains: health care reform (i.e., information/understanding, cost reductions and service
availability, consumer accountability/responsibility, and control over practice),
quality of care concerns (i.e., comfort measures, basic care capabilities, patient
care standards, adequacy of discharge planning, and holistic care), safety
concerns (i.e., personal risks and competency, and risks or harm to consumers),
professional issues (i.e., work relations with managers, education opportunities,
ARNN nursing care standards, and powerlessness/empowerment), and
workplace conditions (i.e., colleague support, workload, recognition,
demands/stress, and resources/efficiency). Subjects are asked to rate items
comprising each content domain on a six-point Likert scale ranging from 1
(strongly disagree) to 6 (strongly agree). It is possible to calculate a total score
and individual subscale scores based on item ratings.

Way (1995) reported on the reliability and validity of the IHCRS. The
internal consistency of the subscales ranged from an alpha of .61 to .79. High
internal consistency was also obtained for the total scale (alpha = .87).
Construct validity was supported by the strong, positive correlations between the
subscales and total scale (range: r = .64 to .90), and exploratory and
confirmatory factor analysis (i.e., 7-factor solution explained 59.3% the total
variance).

McCloskey/Mueller Satisfaction Scale (MMSS)

The MMSS is a 31-item multidimensional instrument designed to measure
nurses' job satisfaction (see Appendix E). Scale items assess satisfaction in eight domains: extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility. Each item is rated on a five point Likert scale, ranging from 1 (very dissatisfied) to 5 (very satisfied). Item ratings may be averaged to indicate satisfaction with specific areas and overall satisfaction.

Psychometric testing of the MMSS was reported by Mueller and McCloskey (1990). Alpha reliability coefficients for the subscales ranged from .52 to .84, with an alpha value of .89 for the total scale. Test-retest reliabilities, correlating 6-month and 12-month data sets, were within accepted ranges for the total scale ($r = .64$) and most subscales (range: $r = .48 \text{ to } .67$). Criterion-related validity was established by correlating the MMSS with the Brayfield-Rothe general job satisfaction scale and relevant subscales of the Job Diagnostic Survey (JDS). Subscale correlations ranged from .53 to .75 for similar dimensions, and total scale correlations were .41 and .56. Finally, construct validity was supported by exploratory and confirmatory factor analysis (i.e., 8-factor solution).

**Descriptive Profile**

Data were collected on select demographic and work-related variables (see Appendix F). Respondents were asked questions regarding age,
education, area of employment, employment status, nursing experience, and current position.

**Ethical Considerations**

Several steps were taken to address ethical considerations. The study was approved by the Human Investigation Committee of Memorial University of Newfoundland (see Appendix G). Letters of support for the study were also received from the program managers of targeted clinical areas (see Appendix H) of the Health Care Corporation.

Staff nurses were informed by posted notices that participation in the study was completely voluntary. Complete anonymity and confidentiality were assured by requesting that respondents not identify themselves on the data collection package, and deposit sealed envelopes containing completed instruments in locked drop-off boxes located at each site.

**Data Analysis**

SPSS for Windows programs were used during data analysis. Descriptive statistics were used to construct a descriptive profile of demographic and work-related variables, and subscales of the IHCRS and MMSS. The strength and direction of relationships among study variables were determined by the Pearson product-moment correlation coefficient (Pearson's r).
and/or appropriate non-parametric tests (i.e., Spearman's rho). The t-test or analysis of variance was used to assess the effect of demographic and work-related variables on the total and subscale scores of the IHCRS and MMSS. The alpha level was set at .05 for statistical significance.

Given the inconsistent research findings on the predictors of overall job satisfaction, stepwise multiple regression analysis was selected as the most appropriate method for this study. Only those variables depicting a significant correlation with, or had a demonstrated effect on, the dependent variable were used during regression analysis. Cronbach's alpha was used to assess the internal consistency of the IHCRS and MMSS subscales and total scales.

**Limitations**

The use of a non-probability convenience sample limits the generalizability of study findings. Additional study limitations were the use of self-report measures and the absence of researcher control over the conditions under which subjects completed study instruments (e.g., consulting with others, clarity or relevancy of specific items, fatigue, etc.). However, this did not appear to be an issue in previous studies using the IHCRS and the MMSS.
CHAPTER 4

Results

Study findings are presented in three sections. The first section presents a descriptive profile of the sample and key variables. The second section summarizes the relationships among study variables, including the results of multiple regression analysis on job satisfaction. The final section discusses the reliability and validity of the instruments based on study findings.

Descriptive Profile

This section presents an overview of study findings on demographic and work-related variables. Descriptive findings are also presented on key study variables: impact of health care reform and job satisfaction.

Demographic/Work-Related

Table 1 summarizes key characteristics of the sample. A significant number of subjects worked in surgical areas (42.8%), were employed on a full-time permanent basis (72.4%), had 9 years or less of nursing experience (47.8%), and held their current positions for 5 to 9 years (43.1%). The majority of subjects also had diploma level education (81.1%), and fell within the 30 to 39 age range (54.5%). Each study site had approximately equal numbers responding to the survey (35.5%, 33.3%, and 31.2%).
Table 1

Description of the Sample (N = 297)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area of Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Care</td>
<td>57</td>
<td>19.2</td>
</tr>
<tr>
<td>Surgical</td>
<td>127</td>
<td>42.8</td>
</tr>
<tr>
<td>Medical</td>
<td>113</td>
<td>38.0</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time permanent</td>
<td>215</td>
<td>72.4</td>
</tr>
<tr>
<td>Full-time temporary</td>
<td>25</td>
<td>8.4</td>
</tr>
<tr>
<td>Part-time permanent</td>
<td>35</td>
<td>11.8</td>
</tr>
<tr>
<td>Part-time temporary</td>
<td>22</td>
<td>7.4</td>
</tr>
<tr>
<td>Nursing Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤9 years</td>
<td>142</td>
<td>47.8</td>
</tr>
<tr>
<td>10 - 19 years</td>
<td>130</td>
<td>43.8</td>
</tr>
<tr>
<td>≥20 years</td>
<td>25</td>
<td>8.4</td>
</tr>
<tr>
<td>Current Position Tenure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤4 years</td>
<td>77</td>
<td>25.9</td>
</tr>
<tr>
<td>5 - 9 years</td>
<td>128</td>
<td>43.1</td>
</tr>
<tr>
<td>≥10 years</td>
<td>92</td>
<td>31.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma only</td>
<td>241</td>
<td>81.1</td>
</tr>
<tr>
<td>Diploma + certificate</td>
<td>29</td>
<td>9.8</td>
</tr>
<tr>
<td>BN or higher</td>
<td>27</td>
<td>9.1</td>
</tr>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 - 29</td>
<td>76</td>
<td>25.6</td>
</tr>
<tr>
<td>30 - 39</td>
<td>162</td>
<td>54.5</td>
</tr>
<tr>
<td>≥40</td>
<td>59</td>
<td>19.9</td>
</tr>
</tbody>
</table>

¹One respondent did not provide demographic/work-related information.
Impact of Health Care Reform

The Impact of Health Care Reform Scale (IHCRS) assessed nurses' perceptions of health care reforms, quality of care and safety concerns, professional issues, and workplace conditions. Scale items were rated on a six-point scale, ranging from strongly disagree (1) to strongly agree (6). Negatively worded items were reverse scored prior to data entry. The possible score range for the subscales and the total scale is 5 to 30 and 25 to 150, respectively. Higher scores indicate more positive attitudes towards the impact of health care reforms. The means and standard deviations for the subscales and total score are presented in Table 2.

The findings suggest that most nurses had negative attitudes toward the overall impact of health care reforms (M = 75.29). The mean IHCRS score was below the normative value (M = 81.84) for a stratified random sample of 333 registered nurses selected from the six health care regions of the province of Newfoundland (Way, 1995). The observed decline in overall attitudes between the time periods (i.e., 1-year prior to and 6 to 7 months into managerial restructuring and downsizing) was statistically significant (p < .001).

All of the subscale means for the current study were lower than the normative values reported by Way (1995) for nurses working in all clinical areas. There was a statistically significant decline in mean scores (p < .001) between the two time periods (see Table 2). The differences observed in total and
Table 2

Comparison of IHCRS Results with Baseline Data from the ARNN Study

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Current¹ (Nov 1996)</th>
<th>ARNN² (Mar 1995)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>17.57 (4.53)</td>
<td>18.95 (5.02)</td>
<td>-5.26***</td>
</tr>
<tr>
<td>Safety</td>
<td>16.78 (4.02)</td>
<td>17.78 (4.44)</td>
<td>-4.29***</td>
</tr>
<tr>
<td>Reform</td>
<td>15.39 (3.80)</td>
<td>16.92 (4.16)</td>
<td>-6.92***</td>
</tr>
<tr>
<td>Workplace</td>
<td>12.82 (4.90)</td>
<td>14.85 (5.04)</td>
<td>-7.15***</td>
</tr>
<tr>
<td>Quality</td>
<td>12.73 (4.45)</td>
<td>13.58 (4.89)</td>
<td>-3.30***</td>
</tr>
<tr>
<td>Total Score</td>
<td>75.29 (15.72)</td>
<td>81.84 (17.95)</td>
<td>-7.19***</td>
</tr>
</tbody>
</table>

¹Sample size for the current study was 298. ²Sample size for the ARNN study was 333.

*** p < .001
subscale scores between the two time periods remained significant even when
the current study results were compared to those obtained from the subsample
of acute care nurses in the initial study.

Respondents viewed professional issues, safety concerns, and reforms
more positively than workplace conditions and quality concerns. Study findings
indicated that most respondents were ambivalent (i.e., neither positive nor
negative attitudes) about professional issues (i.e., work relations with managers,
education opportunities, care standards, powerlessness/empowerment).
However, nurses were more negative than positive about safety concerns (i.e.,
personal risks/competency and risks or harm to consumers), health care reforms
(i.e., information/understanding, cost reductions and service availability,
consumer accountability/responsibility, and control over practice), workplace
conditions (i.e., colleague support, workload, recognition, demands/stress, and
resources/efficiency) and quality of care concerns (i.e., comfort measures, basic
care capabilities, care standards, adequacy of discharge planning, and holistic
care).

Overall, the findings indicated that the perceived impact on consumers
(e.g., availability/accessibility, risks/harm, comfort measures, etc.) and nurses
(e.g., control, support, recognition, morale, etc.) was more negative than
positive. More specifically, a significant number felt that consumers were
inadequately prepared for discharge (54%), often did not have their
emotional/psychosocial needs met (89.6%), and were exposed to greater risks because of overworked and stressed nurses (89.3%) and inadequate community-based resources (85.9%). Although most (87%) were confident that nursing procedures were being performed in a safe and competent manner, many found it difficult to always meet the ARNN nursing care standards (53%), were forced to lower standards because of overwhelming work demands (85%), or were frustrated with the reduced level of nursing care being provided (84.2%). Further, a significant number did not feel that their work environment was supportive (51.3%), reforms had a positive influence on time management skills (52.7%), or their efforts were appreciated (82.8).

**Job Satisfaction**

The McCloskey/Mueller Satisfaction Scale (MMSS) was used to measure nurses' job satisfaction in eight dimensions: extrinsic rewards, scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility. Items were ranked from very dissatisfied (1) to very satisfied (5). Mean and weighted mean scores were computed for each subscale and the total scale (see Table 3).

Study findings indicated that most nurses were slightly more dissatisfied than satisfied with their jobs ($M = 2.91$). The weighted mean for the total scale was lower than the values ($M = 3.28$ and 3.25, respectively) reported by Mueller
### Table 3

**Mean and Standard Deviation Scores for the MMSS (N = 298)**

<table>
<thead>
<tr>
<th>Subscales</th>
<th>MMSS M</th>
<th>Weighted* M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extrinsic Rewards</td>
<td>7.54</td>
<td>2.51</td>
<td>2.78</td>
</tr>
<tr>
<td>Scheduling</td>
<td>17.51</td>
<td>2.92</td>
<td>5.24</td>
</tr>
<tr>
<td>Family/Work Balance</td>
<td>8.36</td>
<td>2.79</td>
<td>1.98</td>
</tr>
<tr>
<td>Co-workers</td>
<td>7.75</td>
<td>3.88</td>
<td>1.28</td>
</tr>
<tr>
<td>Control/Responsibility</td>
<td>11.88</td>
<td>2.38</td>
<td>4.12</td>
</tr>
<tr>
<td>Praise/Recognition</td>
<td>11.97</td>
<td>2.99</td>
<td>3.39</td>
</tr>
<tr>
<td>Professional</td>
<td>11.09</td>
<td>2.77</td>
<td>2.61</td>
</tr>
<tr>
<td>Interaction</td>
<td>14.14</td>
<td>3.53</td>
<td>2.91</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td>90.22</td>
<td>2.91</td>
<td>16.16</td>
</tr>
</tbody>
</table>

* Subscale scores were summed and divided by the number of items to generate a weighted mean for comparison purposes (i.e., range of 1 to 5).
and McCloskey (1990) and Hastings and Waltz (1995). In addition, the weighted means for the subscales in the current study indicated that nurses were most satisfied with co-workers (i.e., nursing peers and physicians), followed by interaction opportunities (i.e., care delivery, and work-related social and interdisciplinary contact), praise/recognition (i.e., supervisors and peers), scheduling (i.e., flexibility), family/work balance (i.e., part-time work, maternity leave, and child care), professional opportunities (i.e., committees and affiliations with academic institutions), extrinsic rewards (i.e., salary and benefits), and control/responsibility (i.e., work setting and career), respectively.

The greatest sources of satisfaction were nursing peers (90.6%) and physicians (62%), care delivery methods (76.5%), and opportunities for social contact with colleagues at work (55.4%) and after work (57.1%). The greatest areas of dissatisfaction included salary (71.8%), compensation for working weekends (67.5%), control over the work setting (62.4%) and work conditions (72.5%), opportunities for career advancement (70.8%), and recognition from superiors (60.5%).

**Interrelationships Among Study Variables**

This section examines the effect of demographic and work-related variables (i.e., area of employment, employment status, nursing experience, current position tenure, education, and age) on nurses' perceptions of the impact
of health care reform and job satisfaction. One-way analysis of variance
(ANOVA) was used to identify group differences for the subscales and total
scale. The Bonferroni test was the multiple comparison procedure used to
identify differences in group means.

The findings are also presented on the relationships between the
subscales and total scores of the IHCRS and the MMSS. Pearson's r was used
to determine the relationship among these variables.

**IHCRS and Demographic/Work-Related**

The findings revealed few significant differences across major
demographic/work-related groupings. Nursing experience ($F = 3.23, p = .04$)
and age ($F = 3.44, p = .03$) affected perceptions of safety concerns. That is,
nurses forty and older or with twenty or more years experience were more
positive about safety measures than those twenty to twenty-nine years of age or
with less than nine years experience. As well, medical nurses viewed
professional issues more positively than surgical nurses ($F = 4.06, p = .02$), and
older nurses ($\geq 40$ years) were more positive about workplace conditions than
younger nurses ($F = 6.61, p = .002$). Finally, nurses forty years or older were
generally more positive about the overall impact of health care reforms than
nurses twenty to twenty-nine years of age ($F = 3.46, p = .03$).
MMSS and Demographic/Work-Related

There were a number of correlates (i.e., demographic and work-related variables) that influenced nurses' ratings on the various dimensions of job satisfaction. The findings are presented according to major correlates. Tables 4, 5, and 6 summarize study findings.

Employment status. There were no significant differences in overall job satisfaction based on full/part-time or permanent/temporary status. However, nurses in permanent positions were more satisfied than those in temporary positions with extrinsic rewards ($E = 7.04, p = .008$), balance of family/work life ($E = 7.12, p = .008$), and with control/responsibility ($E = 4.56, p = .03$). As well, part-time nurses were more satisfied than full-time nurses with balance of family/work life ($E = 5.41, p = .02$).

Area of employment. With regard to overall job satisfaction, nurses working in medical areas were more satisfied than those working in critical care ($E = 4.54, p = .01$). Further, satisfaction with scheduling ($E = 10.68, p = .000$) and control/responsibility ($E = 4.68, p = .01$) varied across clinical settings. That is, medical and surgical nurses were significantly more satisfied with scheduling than critical care nurses, and medical nurses were more satisfied with control/responsibility than surgical nurses.

Nursing experience. Generally, more experienced ($E = 10.00, p = .000$) nurses were more satisfied than less experienced nurses. Nurses with less than
Table 4

**MMSS and Extrinsic Rewards and Scheduling Subscales by Demographic/Work-Related Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>MMSS Total Score</th>
<th>Extrinsic Rewards</th>
<th>Scheduling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full/Part Time</td>
<td>F = 0.06</td>
<td>F = 0.74</td>
<td>F = 0.71</td>
</tr>
<tr>
<td></td>
<td>(p = .96)</td>
<td>(p = .69)</td>
<td>(p = .40)</td>
</tr>
<tr>
<td>Permanent/Temporary</td>
<td>F = 1.27</td>
<td>F = 7.04**</td>
<td>F = 0.46</td>
</tr>
<tr>
<td></td>
<td>(p = .21)</td>
<td>(p = .008)</td>
<td>(p = .50)</td>
</tr>
<tr>
<td>Area of Employment</td>
<td>F = 4.54*</td>
<td>F = 0.07</td>
<td>F = 10.68***</td>
</tr>
<tr>
<td></td>
<td>(p = .01)</td>
<td>(p = .93)</td>
<td>(p = .000)</td>
</tr>
<tr>
<td>Nursing Experience</td>
<td>F = 10.00***</td>
<td>F = 2.29</td>
<td>F = 4.61*</td>
</tr>
<tr>
<td></td>
<td>(p = .000)</td>
<td>(p = .10)</td>
<td>(p = .01)</td>
</tr>
<tr>
<td>Current Position Tenure</td>
<td>F = 6.76**</td>
<td>F = 2.91</td>
<td>F = 3.96*</td>
</tr>
<tr>
<td></td>
<td>(p = .001)</td>
<td>(p = .06)</td>
<td>(p = .02)</td>
</tr>
<tr>
<td>Education</td>
<td>F = 1.55</td>
<td>F = 4.57*</td>
<td>F = 3.15*</td>
</tr>
<tr>
<td></td>
<td>(p = .21)</td>
<td>(p = .01)</td>
<td>(p = .04)</td>
</tr>
<tr>
<td>Age</td>
<td>F = 13.22***</td>
<td>F = 0.77</td>
<td>F = 8.45***</td>
</tr>
<tr>
<td></td>
<td>(p = .000)</td>
<td>(p = .46)</td>
<td>(p = .000)</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
Table 5

Control/Responsibility, Family/Work Balance, and Co-Workers Subscales by Demographic/Work-Related Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control/Responsibility</th>
<th>Family/Work Balance</th>
<th>Co-Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full/Part-Time</td>
<td>F = 0.56 (p = .45)</td>
<td>F = 5.41* (p = .02)</td>
<td>F = 1.75 (p = .19)</td>
</tr>
<tr>
<td>Permanent/Temporary</td>
<td>F = 4.56* (p = .03)</td>
<td>F = 7.12** (p = .008)</td>
<td>F = 0.85 (p = .36)</td>
</tr>
<tr>
<td>Area of Employment</td>
<td>F = 4.68* (p = .01)</td>
<td>F = 0.26 (p = .77)</td>
<td>F = 5.12 (p = .08)</td>
</tr>
<tr>
<td>Nursing Experience</td>
<td>F = 10.37*** (p = .000)</td>
<td>F = 11.51*** (p = .000)</td>
<td>F = 2.10 (p = .13)</td>
</tr>
<tr>
<td>Current Position Tenure</td>
<td>F = 4.02* (p = .02)</td>
<td>F = 6.88** (p = .001)</td>
<td>F = 7.34** (p = .001)</td>
</tr>
<tr>
<td>Education</td>
<td>F = 1.59 (p = .21)</td>
<td>F = 0.86 (p = .43)</td>
<td>F = 0.13 (p = .88)</td>
</tr>
<tr>
<td>Age</td>
<td>F = 13.86*** (p = .000)</td>
<td>F = 8.25*** (p = .000)</td>
<td>F = 1.52 (p = .22)</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
### Table 6

**Praise/Recognition, Professional Opportunities, and Interaction Subscales by Demographic/Work-Related Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Praise/Recognition</th>
<th>Professional Opportunities</th>
<th>Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full/Part-Time</td>
<td>F = 1.00</td>
<td>F = 0.15</td>
<td>F = 0.00</td>
</tr>
<tr>
<td></td>
<td>(p = .32)</td>
<td>(p = .70)</td>
<td>(p = .99)</td>
</tr>
<tr>
<td>Permanent/Temporary</td>
<td>F = 1.17</td>
<td>F = 0.07</td>
<td>F = 0.01</td>
</tr>
<tr>
<td></td>
<td>(p = .28)</td>
<td>(p = .80)</td>
<td>(p = .94)</td>
</tr>
<tr>
<td>Area of Employment</td>
<td>F = 2.74</td>
<td>F = 2.99</td>
<td>F = 0.75</td>
</tr>
<tr>
<td></td>
<td>(p = .06)</td>
<td>(p = .05)</td>
<td>(p = .48)</td>
</tr>
<tr>
<td>Nursing Experience</td>
<td>F = 4.93**</td>
<td>F = 0.89</td>
<td>F = 1.76</td>
</tr>
<tr>
<td></td>
<td>(p = .008)</td>
<td>(p = .41)</td>
<td>(p = .18)</td>
</tr>
<tr>
<td>Current Position Tenure</td>
<td>F = 2.09</td>
<td>F = 1.75</td>
<td>F = 8.22***</td>
</tr>
<tr>
<td></td>
<td>(p = .13)</td>
<td>(p = .18)</td>
<td>(p = .000)</td>
</tr>
<tr>
<td>Education</td>
<td>F = 0.44</td>
<td>F = 0.34</td>
<td>F = 0.25</td>
</tr>
<tr>
<td></td>
<td>(p = .65)</td>
<td>(p = .71)</td>
<td>(p = .78)</td>
</tr>
<tr>
<td>Age</td>
<td>F = 8.89***</td>
<td>F = 2.89</td>
<td>F = 4.21*</td>
</tr>
<tr>
<td></td>
<td>(p = .000)</td>
<td>(p = .06)</td>
<td>(p = .02)</td>
</tr>
</tbody>
</table>

*p < .05,  **p < .01,  ***p < .001
nine years experience were less satisfied with the balance of family/work life ($E = 11.51, p = .000$) and scheduling ($E = 4.61, p = .01$) than nurses with greater experience. Further, nurses with ten or more years experience were more satisfied with control/responsibility than those with nine or less years experience ($E = 10.37, p = .000$); and more experienced nurses were more satisfied with praise/recognition than those with less experience ($E = 4.93, p = .008$).

**Current position tenure.** The findings indicated that nurses who were in their current positions for ten or more years were more satisfied with their jobs than those with tenures of 5 - 9 years ($E = 6.76, p = .001$). There were also a number of satisfaction dimensions that were affected by current position tenures. Nurses in their current positions for longer periods showed higher satisfaction levels with scheduling ($E = 3.96, p = .02$), balance of family/work life ($E = 6.88, p = .001$), co-workers ($E = 7.34, p = .001$), control/responsibility ($E = 4.02, p = .02$), and opportunity for interaction ($E = 8.22, p = .000$) than those with less position tenure.

**Education.** The only significant effects for education were with extrinsic rewards and scheduling. Diploma nurses with certificates demonstrated less satisfaction with extrinsic rewards ($E = 4.57, p = .01$) than diploma only and baccalaureate or higher prepared nurses, and less satisfaction with scheduling than nurses with baccalaureate and higher degrees ($E = 3.15, p = .04$).

**Age.** Study findings indicated that older ($E = 13.22, p = .000$) nurses
were more satisfied with their jobs than younger nurses. Respondent age also influenced five of the eight subscales. Generally, older nurses were more satisfied with control/responsibility ($E = 13.86, p = .000$), praise/recognition ($E = 8.89, p = .000$), opportunity for interaction ($E = 4.21, p = .02$), and scheduling ($E = 8.45, p = .000$). Only the oldest age group of nurses (> 40 years) indicated more satisfaction with balance of family/work life than those from other age groups ($E = 8.25, p = .000$).

**Impact of Health Care Reform and Job Satisfaction**

Table 7 summarizes the correlation findings between the total and subscale scores of the IHCRS and the MMSS. There were statistically significant positive relationships among all major components of the scales. These findings suggest that nurses with more positive perceptions about the impact of health care reform tended to be more satisfied with their jobs.

The strongest significant relationships occurred between three IHCRS subscales (i.e., workplace conditions, professional issues, and safety) and four dimensions of job satisfaction (i.e., control/responsibility, praise/recognition, professional opportunities, and interaction). Based on the coefficient of determination or $r^2$, the workplace conditions subscale accounted for 36%, 28.1%, 13%, and 10.9% of the variance in satisfaction with control/responsibility over job activities, praise/recognition or supervisory communication and
### Table 7

Correlations of IHCRS with MMSS (N = 298)

<table>
<thead>
<tr>
<th>Variable</th>
<th>IHCRS</th>
<th>HCR</th>
<th>QC</th>
<th>SC</th>
<th>PI</th>
<th>WC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER</td>
<td>.34***</td>
<td>.26***</td>
<td>.31***</td>
<td>.22***</td>
<td>.20***</td>
<td>.25***</td>
</tr>
<tr>
<td>SCH</td>
<td>.37***</td>
<td>.20***</td>
<td>.24***</td>
<td>.23***</td>
<td>.30***</td>
<td>.34***</td>
</tr>
<tr>
<td>BFW</td>
<td>.28***</td>
<td>.15*</td>
<td>.22***</td>
<td>.22***</td>
<td>.17**</td>
<td>.24***</td>
</tr>
<tr>
<td>CW</td>
<td>.29***</td>
<td>.17**</td>
<td>.22***</td>
<td>.24***</td>
<td>.19**</td>
<td>.25***</td>
</tr>
<tr>
<td>IO</td>
<td>.38***</td>
<td>.14*</td>
<td>.31***</td>
<td>.32***</td>
<td>.25***</td>
<td>.33***</td>
</tr>
<tr>
<td>PO</td>
<td>.45***</td>
<td>.16**</td>
<td>.25***</td>
<td>.37***</td>
<td>.47***</td>
<td>.36***</td>
</tr>
<tr>
<td>P/R</td>
<td>.52***</td>
<td>.29***</td>
<td>.31***</td>
<td>.31***</td>
<td>.39***</td>
<td>.53***</td>
</tr>
<tr>
<td>C/R</td>
<td>.65***</td>
<td>.30***</td>
<td>.43***</td>
<td>.49***</td>
<td>.51***</td>
<td>.60***</td>
</tr>
<tr>
<td>MMSS</td>
<td>.65***</td>
<td>.33***</td>
<td>.45***</td>
<td>.47***</td>
<td>.50***</td>
<td>.58***</td>
</tr>
</tbody>
</table>

Note: IHCRS=Impact of Health Care Reform Scale; HCR=Health Care Reform; QC=Quality of Care Concerns; SC=Safety Concerns; PI=Professional Issues; WC=Workplace Conditions; ER=Extrinsic Rewards; SCH=Scheduling; BFW=Balance of Family and Work; CW=Co-Workers; IO=Interaction Opportunities; PO=Professional Opportunities; P/R=Praise and Recognition; C/R=Control and Responsibility; MMSS=McCloskey/Mueller Satisfaction Scale.

* $p < .05$, ** $p < .01$, *** $p < .001$
feedback, professional opportunities or involvement in career promoting activities, and social/professional interaction, respectively. The professional issues subscale accounted for 26%, 22.1%, 15.2%, and 6.3% of the variance in control/responsibility, professional opportunities, praise/recognition, and interaction, respectively. Finally, safety concerns accounted for 24%, 13.7%, 10.2%, and 9.6% of the variance in control/responsibility, professional opportunities, interaction, and praise/recognition, respectively.

**Predictors of Job Satisfaction**

Stepwise multiple regression analysis was used to identify significant predictors of overall job satisfaction. Determinants (i.e., work environment characteristics) and correlates (demographic and work-related factors) depicting significant associations with job satisfaction were used in the analysis. The results of the multiple regression analysis are summarized in Table 8.

The first level modelling was restricted to a consideration of the predictive power of the determinants. Correlation analysis demonstrated significant positive relationships between all major components of the IHCRS (i.e., workplace conditions, professional issues, quality of care concerns, safety concerns, and health care reform) and overall job satisfaction. Model I shows that four determinants combined to explain 43.8% of the variance in job satisfaction. Workplace conditions entered the regression equation first,
Table 8

**Stepwise Multiple Regression on Overall Job Satisfaction (N = 298)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 (Determinants)</th>
<th>Model 2 (Determinants + Correlates)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multiple R</td>
<td>Adjusted R²</td>
</tr>
<tr>
<td>WC</td>
<td>.582</td>
<td>.337</td>
</tr>
<tr>
<td>SC</td>
<td>.634</td>
<td>.398</td>
</tr>
<tr>
<td>PI</td>
<td>.652</td>
<td>.420</td>
</tr>
<tr>
<td>QC</td>
<td>.662</td>
<td>.430</td>
</tr>
</tbody>
</table>

WC=Workplace Conditions; SC=Safety Concerns; PI=Professional Issues; QC=Quality of Care Concerns; CPT=Current Position Tenure; Age=Age in Years; Area=Clinical Area of Employment.
accounting for 33.9% of the variance. This variable was followed by safety concerns, professional issues, and quality concerns which accounted for an additional 6.3%, 2.3%, and 1.3%, respectively. Health care reform failed to enter the equation.

At the next level of analysis, the correlates were added to the regression equation. For the correlates, higher levels of job satisfaction were associated with older age, greater current position tenure, more nursing experience, and working in medical and surgical units. As depicted in Model 2, the addition of three correlates increased the explained variance to 48.8%. Workplace conditions and safety concerns continued to account for the greatest proportion of variance. Current position tenure entered at step three, accounting for 2.7% of the explained variance. This variable was followed by professional issues, age, clinical area, and quality concerns which accounted for an additional 2.5%, 1.8%, 1.5%, and 1.3% of the variance, respectively. Nursing experience failed to enter the regression equation.

**Reliability and Validity of Study Instruments**

The reliability and validity of the IHCRS and MMSS were also examined for the study population. Cronbach's alpha was used to assess internal consistency. The intercorrelations among subscales and total scores were used to determine construct validity.
The total instrument had an alpha coefficient of .83, indicating a high level of internal consistency. Alpha coefficients for the five subscales ranged from .46 to .67: health care reform (.46), quality of care concerns (.60), safety concerns (.62), professional issues (.57), and workplace conditions (.67). These findings indicate that the total scale and the subscales, with the exception of the health care reform subscale, have good internal consistency.

The construct validity of the IHCRS was assessed by examining the intercorrelations among the total and subscale scores. This is a common first step in assessing how well the selected dimensions reflect the underlying construct (Nunnally, 1978). Pearson's $r$ was used to generate a correlational matrix (see Table 9). Most of the subscale scores depicted strong, positive correlations with the total scale score. The Reform subscale had the lowest correlation ($r = .61$, $p < .001$) with the total scale, and the Workplace Conditions subscale the strongest ($r = .77$, $p < .001$). These findings suggest that all of the subscales are measuring some aspect of the impact of health care reforms.

All of the intercorrelations among the subscales were statistically significant and within the moderate range ($p < .001$). The only exception was the low correlation between the Reform and Professional Issues subscales. These findings suggest that the subscales are related and represent distinct dimensions of the impact of health care reforms (i.e., good discriminatory
### Table 9

**Correlations Among IHCRS Subscales (N = 298)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>QC</th>
<th>SC</th>
<th>PI</th>
<th>WC</th>
<th>IHCRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCR</td>
<td>.42***</td>
<td>.32***</td>
<td>.22***</td>
<td>.32***</td>
<td>.61***</td>
</tr>
<tr>
<td>QC</td>
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</tr>
<tr>
<td>SC</td>
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</tr>
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<td>PI</td>
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<td>.50***</td>
<td>.73***</td>
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<td></td>
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<tr>
<td>WC</td>
<td></td>
<td></td>
<td>.77***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** IHCRS=Impact of Health Care Reform Scale; HCR=Health Care Reform; QC=Quality of Care Concerns; SC=Safety Concerns; PI=Professional Issues; WC=Workplace Conditions.

***p < .001
In summary, the intercorrelations among the subscales and the subscales to total scale suggest that the IHCRS has good construct validity.

**MMSS**

Alpha coefficients were also generated for the MMSS and its subscales. The alpha coefficient for the total scale was .90. The subscale alphas ranged from .32 to .83: extrinsic rewards (.63), scheduling (.81), family/work balance (.32), co-workers (.43), control/responsibility (.83), praise/recognition (.77), professional opportunities (.78), and interaction opportunities (.77). These findings indicate that most subscales, with the exception of family/work balance, have moderate to high internal consistency.

The MMSS subscale scores demonstrated moderate to strong, positive associations with the total score (see Table 10). The extrinsic rewards subscale had the lowest correlation ($r = .49, p < .001$) with the total scale, and the control/responsibility subscale the strongest ($r = .80, p < .001$). The findings suggest that all of the subscales are measuring some aspect of job satisfaction.

Twenty-six of the twenty-eight intercorrelations among the subscales were statistically significant and fell within the low to moderate range ($p < .001$). The extrinsic rewards and family/work balance subscales demonstrated the lowest correlations with other subscales. The findings suggest that most subscales reflect distinct aspects of job satisfaction. In summary, the intercorrelations
Table 10

Correlations Among MMSS Subscales (N = 298)

<table>
<thead>
<tr>
<th>Vars</th>
<th>SCH</th>
<th>BFW</th>
<th>CW</th>
<th>IO</th>
<th>PO</th>
<th>PR</th>
<th>CR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER</td>
<td>.46***</td>
<td>.26***</td>
<td>.16***</td>
<td>.15***</td>
<td>.02</td>
<td>.15*</td>
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<td>.49***</td>
</tr>
<tr>
<td>SCH</td>
<td>.46***</td>
<td>.23***</td>
<td>.31***</td>
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<td>.74***</td>
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<tr>
<td>BFW</td>
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<td>.17**</td>
<td>.25***</td>
<td>.14*</td>
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<td>.51***</td>
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</tr>
<tr>
<td>CW</td>
<td>.51***</td>
<td>.36***</td>
<td>.51***</td>
<td>.33***</td>
<td>.52***</td>
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<td></td>
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<td>IO</td>
<td>.53***</td>
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<td>.64***</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>P/R</td>
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<td>.70***</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C/R</td>
<td>.80***</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Vars=Variables; ER=Extrinsic Rewards; SCH=Scheduling; BFW=Balance of Family and Work; CW=Co-Workers; IO=Interaction Opportunities; PO=Professional Opportunities; P/R=Praise and Recognition; C/R=Control and Responsibility; MMSS=McCloskey/Mueller Satisfaction Scale.

*p < .05, **p < .01, ***p < .001
among the subscales and the subscales to total scale suggest that the MMSS has fairly good construct validity.

**Summary**

The nurses in this study were generally more negative than positive about the impact of health care reforms in comparison to baseline data collected prior to managerial restructuring and downsizing. Respondents were most negative about quality of care concerns and workplace conditions. Only a few demographic/work-related variables (age, clinical area, and nursing experience) influenced perceptions about the impact of health care reform.

Study findings also demonstrated that respondents were neither totally satisfied nor dissatisfied with their jobs. All of the demographic/work-related variables affected some aspect of job satisfaction (i.e., overall or individual dimensions). Nurses were most satisfied with co-workers and interaction opportunities, and least satisfied with control/responsibility and extrinsic rewards.

Overall job satisfaction, as well as each of its dimensions, were significantly related to the total IHCRS score and its five subscales. Four determinants (i.e., quality of care concerns, safety concerns, professional issues, and workplace conditions) emerged as significant predictors of overall job satisfaction, accounting for 43.8% of the total variance. Finally, three
correlates (i.e., current position tenure, age, and clinical area) surfaced as significant predictors and combined with the four determinants to increase the explained variance to 48.8%.
CHAPTER 5

Discussion

The Conceptual Model of Job Satisfaction (CMJS), a modified version of the Mueller and Price (1990) integrated causal model, provided the framework for this study. The discussion of the findings is organized around the major premises of the CMJS.

The CMJS proposes that determinants (i.e., work environment factors) and correlates (i.e., demographics and work-related variables) exert a direct and interactive effect on provider outcome (i.e., job satisfaction). For the current study, determinants were restricted to nurses' perceptions of health care reform, quality care concerns, safety concerns, professional issues, and workplace conditions. With regard to correlates, consideration was given to select demographic variables (i.e., age and education) and work-related characteristics (i.e., area of employment, employment status, nursing experience, and current position tenure).

Provider Outcome: Level of Job Satisfaction

One of the research questions investigated in this study was acute care nurses' levels of job satisfaction. The overall mean score for the MMSS indicated that nurses were slightly more dissatisfied than satisfied with their jobs. This mean score was lower than the normative values reported for newly hired
nurses at six months employment (Mueller & McCloskey, 1990) and for staff nurses at two years post-implementation of a shared governance management model (Hastings & Waltz, 1995).

Conflicting findings have been reported in the literature on nurses’ levels of job satisfaction. Way (1994) and Shindui-Rothschild et al. (1996) reported that many nurses were experiencing job dissatisfaction following downsizing initiatives within the health care system. In comparable studies investigating the impact of managerial restructuring, Morris et al. (1994) found that nurses were generally satisfied with their jobs, while Hastings and Waltz (1995) found that nurses were more satisfied than dissatisfied with their jobs prior to and two years following institutional changes. However, other studies which used different but comparable measures of satisfaction with the work environment found that nurses tended to be more dissatisfied than satisfied with their jobs (East & Robinson, 1994; Goodell & Coeling, 1994; Johnston, 1991; Seymour & Buscherof, 1991; Williams, 1990).

With regard to current study ratings of the components of job satisfaction, nurses derived the greatest satisfaction from co-workers and interaction opportunities and the least satisfaction from control/responsibility and extrinsic rewards. Comparatively, other studies have found that nurses were generally satisfied with co-workers (Hastings & Waltz, 1995; Mueller & McCloskey, 1990; Roedel & Nystrom, 1988; Whitley & Putzier, 1994) and interaction opportunities
Conflicting findings were noted on satisfaction ratings of extrinsic rewards and control/responsibility. In contrast to the current study, Hastings and Waltz (1995), Mueller and McCloskey (1990), and Whitley and Putzier (1994) found that most nurses indicated slight to moderate satisfaction with extrinsic rewards. Other studies, focusing on pay alone, reported that the majority of nurses were slightly to moderately dissatisfied with this aspect of their jobs (Goodell & Coeling, 1994; Johnston, 1991; Williams, 1990). With regard to control/responsibility, nurses were either slightly satisfied with the amount exercised in their jobs (Goodell & Coeling, 1994; Johnston, 1991; Mueller & McCloskey, 1990; Williams, 1990) or neither satisfied nor dissatisfied (Hastings & Waltz, 1995).

In the current study, satisfaction ratings of praise/recognition, scheduling, family/work balance, and professional opportunities fell slightly below the midpoint of the rating scale (i.e., neither satisfied nor dissatisfied). Similarly, Hastings and Waltz (1995) and Mueller and McCloskey (1990) reported that nurses were slightly dissatisfied with family/work balance and neither satisfied nor dissatisfied with professional opportunities. In contrast to the current study findings, Hastings and Waltz and Mueller and McCloskey found that nurses were slightly satisfied with praise/recognition. Finally, as in the current study, Mueller
and McCloskey found that nurses were slightly dissatisfied with scheduling, whereas Hastings and Waltz reported slight satisfaction with this dimension.

**Determinants of Outcome**

According to the CMJS work environment factors play a significant role in determining provider outcomes. Despite the expanding research base on the influence of work environment factors on providers (e.g., job satisfaction, organizational commitment, intent to leave, stress, turnover, etc), limited consideration has been given to how staff nurses perceive the impact of recent downsizing and managerial restructuring efforts on quality of care, safety concerns, professional issues, workplace conditions, and attitude towards health care reforms. One of the research questions in this study investigated changes in nurses' perceptions of the impact of health care reforms during downsizing and implementation of program management (i.e., 1-year before and 6 to 7 months after managerial restructuring) in acute care facilities.

In the current study, the majority of nurses held more negative than positive attitudes toward the impact of health care reforms. Specifically, the findings indicated that respondents were indecisive about professional issues (i.e., neither positive nor negative), but more negative than positive about safety concerns, health care reforms, workplace conditions, and quality of care concerns. Similarly, East and Robinson (1994) found that most nurses viewed
managerial changes in a negative light (e.g., understanding of and involvement in the reform process, quality of care, safety measures, etc.). Further, Way (1994) and Shindul-Rothschild et al. (1996) reported that many nurses were disillusioned with the quality of care, workplace conditions, and professional practice. In contrast, Hastings and Waltz (1995), Kinneman et al. (1997), and Morris et al. (1994) found that most staff nurses had positive attitudes towards managerial restructuring efforts.

Study findings indicated that there was a significant decline in acute care nurses' overall attitudes toward health care reforms during the downsizing period and following implementation of program management. Significant declines were also noted in nurses' perceptions of quality of care, safety, workplace conditions, professional issues, and health care reforms between the two time periods. There were only a few studies identified which investigated nurses' perceptions of the work environment before and after managerial restructuring. In a similar study of staff perceptions following implementation of program management, Morris et al. (1994) found that nurses reported overall improvements in professional relations and interactions, and quality of patient care (e.g., co-ordination of care and time spent in direct care, etc.). Kinneman et al. (1997) found that staff nurses viewed autonomy and communication and shared responsibilities with physicians more positively at six months following restructuring to patient-centered care than before changes in care delivery.
Factors Influencing Job Satisfaction

Several research questions investigated the influence of select determinants, demographics, and work-related characteristics on job satisfaction. The present discussion compares study findings with those reported in the literature.

Determinants

Study findings revealed significant relationships between all of the major determinants and overall job satisfaction. Further, significant relationships were observed between the determinants and each dimension of job satisfaction. These findings provide support for the CMJS assumption that the work environment has a direct impact on job satisfaction.

The current study’s findings indicated that more positive attitudes towards the overall impact of health care reforms, as well as specific areas of impact (i.e., health care reforms, quality concerns, safety concerns, professional issues, and workplace conditions) were associated with greater job satisfaction.

Comparatively, Hastings and Waltz (1995) found that staff nurses’ perceptions of peer support, ability to give high quality care, adequacy of nurse/patient ratio, and unit level management demonstrated significant, positive correlations with general job satisfaction both before and after managerial restructuring. Several authors found support for the positive influence of leadership or management

**Correlates**

Study findings provide partial support for the CMJS assumption that demographic and work-related factors affect job satisfaction. With regard to overall job satisfaction, significant differences were noted for age, nursing experience, current position tenure, and area of employment. Further, three of those factors (i.e., age, nursing experience, current position tenure) had the greatest impact on specific dimensions of job satisfaction.

In the current study, older, more experienced, and medical nurses reported greater overall job satisfaction than younger, less experienced, and critical care nurses. In addition, nurses who had longer current position tenures reported greater overall job satisfaction than those with shorter current position tenures. Previous studies also found that older nurses were more satisfied with their jobs than younger nurses (Blegen, 1993; Blegen & Mueller, 1987; Irvine & Evans, 1995; Weisman & Nathanson, 1985). In contrast, Hastings and Waltz (1995) and Williams (1990) did not identify a significant effect for age.
Conflicting findings were also identified for the influence of nursing experience on job satisfaction. Blegen and Mueller (1987) and Irvine and Evans (1995) found that more experienced nurses tended to have greater job satisfaction, whereas Hastings and Waltz (1995) and McCloskey and McCain (1987) failed to identify a significant effect for nursing experience. No studies were identified that examined the effect of current position tenure on job satisfaction. In contrast to the current study's findings, Williams (1990) failed to find a significant effect for clinical area of employment on levels of job satisfaction, whereas Hastings (1995) reported higher job satisfaction for nurses working in critical care than their counterparts in medical/surgical areas.

In the current study, education and employment status were not found to affect overall job satisfaction. Conflicting findings have been reported in the literature on education levels. Hastings and Waltz (1995) failed to find a significant effect for level of education preparation, whereas Blegen (1993) found education to be a significant correlate of job satisfaction (i.e. less educated nurses were more satisfied than higher educated nurses). In support of the current study's findings, Wetzel et al. (1990) and Blegen and Mueller (1987) found no significant difference for employment status on overall job satisfaction.
Predictors of Job Satisfaction

The purpose of this study was to investigate the effect of health care reforms and demographic/work-related variables on nurses' job satisfaction. During data analysis, consideration was also given to the interrelationships among independent variables and the best predictor models of job satisfaction.

Interactive Effects

Limited interactions were observed between the demographic/work-related variables and the IHCRS subscales. Specifically, older and more experienced nurses were generally more positive about safety measures and workplace conditions than younger, less experienced nurses. These findings concur with those reported by Way (1995). In the current study, medical nurses viewed professional issues more positively than surgical nurses. In contrast, Way found no significant differences for area of employment on any of the IHCRS subscales.

Predictor Models

Different combinations of independent or predictor variables were attempted during regression analysis to identify the models-of-best-fit for job satisfaction. All of the determinants (i.e., health care reform, quality care concerns, safety concerns, professional issues and workplace conditions) and
several of the correlates (i.e., age, nursing experience, current position tenure, and area of employment) were significantly associated with job satisfaction. During regression analysis, four determinants (i.e., workplace conditions, safety concerns, professional issues, and quality concerns) and three correlates (i.e., current position tenure, age, and area of employment) accounted for 48.8% of the explained variance in overall job satisfaction. Workplace conditions surfaced as the strongest predictor, accounting for 33.9% of the total explained variance.

Although numerous studies reported significant correlations between work environment factors and job satisfaction, only a limited number investigated predictors of job satisfaction. Further, most of these studies differed from the current study with regard to predictor variables. Weisman and Nathanson (1985) regressed a number of variables (i.e., age, presence of teenage children, hierarchical levels above staff nurse, staff conflict, and degree of influence) on job satisfaction. Lower staff conflict, more influence, and older age emerged to explain 33.8% of the variance in job satisfaction, with conflict the strongest predictor. Blegen and Mueller (1987) tested the causal model developed by Price and Mueller (1981, 1986). Thirteen determinants (i.e., opportunity for alternative jobs, routinization, autonomy, job communication, social integration, distributive justice, promotional opportunity, motivation, pay, workload, general training, kinship responsibility, and unit size) and five correlates (i.e., age, length
of service, full-time/part-time employment, shift assignment, and position) were regressed on general job satisfaction. Three determinants (i.e., routinization, distributive justice, and workload) and two correlates (i.e., age and day shift) combined to explain 43% of the variance in job satisfaction. Hastings and Waltz (1995) regressed a number of factors (e.g., eight subscales of the MMSS, peer support, staff involvement, time requirements, adequacy of nurse-patient ratio, ability to deliver high quality care, etc.) on general job satisfaction. Seven variables (satisfaction with control/responsibility, praise/recognition, and scheduling, ability to give high-quality care, nurse-patient ratio, peer support, and perception of unit level management) combined to explain 60% of the variance in general job satisfaction.

Implications of Findings for the CMJS

Data from the current study provided support for the major assumptions of the CMJS. It was postulated that nurses' job satisfaction would be directly affected by the work environment (i.e., health care reform, quality care concerns, safety concerns, professional issues, and workplace conditions). Study findings provide strong support for this assumption. Evidence for the important influence of the work environment on levels of job satisfaction is also found in the literature (e.g., Blegen, 1993; Blegen & Mueller, 1987; Irvine & Evans, 1995; Kramer & Hafner, 1989; Kramer & Schmalenberg, 1988a, 1988b, 1991; McNeese-Smith,
1995, 1997; Mueller & Price, 1990; Price & Mueller, 1986). However, only a few studies examined and found support for the positive and negative effects of a changing work environment on job satisfaction (Hastings & Waltz, 1995; Kinneman et al., 1997; Morris et al., 1994).

Although the work environment variables selected for investigation in the current study accounted for a significant proportion of the variance in job satisfaction, an equal proportion remained unexplained. The influence of other variables (e.g., leadership style, autonomy, distributive justice, organizational commitment, task variety, etc.) have also received support in previous studies. Consideration should be given to those variables with strong empirical support in future testing of the CMJS.

The CMJS also assumes that correlates exert a direct and indirect effect on job satisfaction. The current study found partial support for this assumption. Conflicting findings on the influence of demographic and work-related variables have been reported in the literature. The variables selected for measurement in the current study may have compromised the significance of the findings. That is, with the emphasis on the impact of health care system restructuring, it also might have been meaningful to explore nurses' perceptions of changes in key structural aspects of the work environment (e.g., reduction in RN-patient ratios, increase in casual or part-time positions, change in skill-mix, organizational versus unit tenure, etc.). It is obvious that further research is needed to assess
the significance of these factors for job satisfaction. In addition, the use of path analysis would facilitate closer monitoring of the indirect and direct effects of demographic and work-related variables on job satisfaction.

**Summary**

The primary purpose of this study was to investigate the impact of health care reforms on the job satisfaction of staff nurses working in acute care settings. A second purpose was to examine the separate and interactive effects of demographic and work-related variables on job satisfaction. The study findings provided partial support for the CMJS which provided the conceptual framework for the study. Study findings indicated that nurses' job satisfaction was influenced directly by the changing work environment and certain demographic and work-related variables. Workplace conditions, safety concerns, quality of care concerns, professional issues, and health care reforms depicted moderate to strong correlations with job satisfaction. Age, area of employment, nursing experience, and current position tenure were also found to affect levels of job satisfaction.
CHAPTER 6

Limitations and Implications

In this chapter, the limitations of the study will be discussed. Implications for nursing practice, education, and research will also be presented.

Limitations

The sites chosen for data collection were three acute care hospitals in the St. John's area which are the chief referral centres for the province. However, the non-probability sample used in this study limits the generalizability of findings and thus the results should be interpreted with caution. A second limitation was the absence of researcher control over the conditions under which participants completed the study instruments. This may have generated less reliable data than under more controlled conditions.

Another limitation is related to the reliability and validity of instruments used to measure the impact of health care reforms and job satisfaction. Certain subscales of both the IHCRS and MMSS evidenced low to moderate internal consistency. In addition, intercorrelations among the subscales did not always fall within the recommended range (i.e., .30 to .70). It is acknowledged that slightly different results could have been obtained on some of the observed relationships among the subscales of the instruments.
Implications

Study findings have important implications for nursing practice, nursing education and nursing research. Each of these components are addressed separately in the following discussion.

Nursing Practice

Implications for nursing practice are discussed in terms of the observed relationships between demographic/work-related variables, work environment factors, and job satisfaction. Study findings indicated that nurses, especially temporary nurses, were most dissatisfied with control/responsibility over work conditions and activities. Decentralization of decision-making and increased involvement of staff are anticipated benefits of managerial restructuring. Given the short time period following implementation of program management (i.e., six months), it is probably unrealistic to expect that nurses would have developed an appreciation of any potential long-term benefits. However, greater involvement in decision-making pertinent to the work area and nursing practice would certainly enhance feelings of control over and a sense of ownership of the change process. Strategies must be implemented, especially at the unit level, to promote a greater sense of organizational commitment. This would also serve to enhance nurses’ self esteem as significant members of the health care team, while increasing their opportunities for career development and advancement.
An important contributor to promoting and maintaining staff nurses' interest and involvement in change is leadership. Good leaders recognize and reinforce individual and group contributions, and provide a strong base of support and empowerment. The current study findings suggest that improvement in the quality of supervision, particularly giving praise and recognition to staff nurses, would help increase job satisfaction levels. Also, supervisors should pay more attention to staff nurses' opinions and ideas, and advocate for greater career development opportunities (e.g., inservice education, professional activities, specialty courses, etc.). Administrators should provide leadership courses for their supervisors to help instill and enhance effective leadership characteristics and styles.

The greatest single source of dissatisfaction for nurses in this study, was salary. Pay not only indicates the significance of one’s work but also reflects one’s worth and level of importance in the organization. It is frustrating and demoralizing for nurses to work under stressful conditions with increasing workloads and greater patient acuity, with no increase in salary or benefits for six years, as was the case in the present study. Although salary is outside the control of individual employers, other incentives or forms of recognition should be provided (e.g., opportunities for educational and professional development, certificates of recognition for achievement, etc.).

Study respondents were also very concerned about the quality of health
care and workplace conditions. Most felt that their ability to give quality care was being threatened due to reductions in staff and available resources. If nurses continue to experience similar concerns about workplace conditions and quality of care, will job dissatisfaction become a more serious issue? What implications will increasing job dissatisfaction have for quality of care delivery? How can nurses be expected to become active participants in decision-making and feel empowered to promote quality outcomes when they are questioning their ability to adequately meet patients' basic care needs? What are the implications for nursing leaders (i.e., program managers, divisional managers, and professional practice coordinators) working within the Health Care Corporation of St. John's?

Study findings indicated that the greatest source of job satisfaction for nurses was their co-workers, that is nursing peers and physicians. Opportunities to promote relationships and teamwork amongst co-workers should be encouraged. This will facilitate a greater sense of professional and organizational commitment, while enhancing job satisfaction.

**Nursing Education**

Nursing students, as well as practising nurses, should be cognizant of the multiple factors influencing job satisfaction. This is particularly important in today's health care environment of cost constraints, downsizing, and flattening
of hierarchial structures. Nurses need to be adequately informed about and involved in organizational changes, especially those that have far-reaching implications for clinical practice at the unit level. Most importantly, they must be cognizant of effective ways to promote and maintain job satisfaction during times of change.

Nurse educators must prepare students for the "real world" of nursing while instilling competence, confidence, and self esteem. Nursing students must be adequately informed about the organizational forces that impact upon and shape nursing practice. Without this awareness, students will not be prepared for the many challenges and disillusionments that will confront them when they enter the workforce. Most importantly, they may not have the necessary insight and skills to help them work through the difficulties and conflicts in a meaningful way. The end result may very well be increased job stress, diminished motivation and commitment, low job satisfaction, early burnout, and increased desire to change careers. This situation can be avoided by ensuring that nursing students are given frequent opportunities to work with nurses in a variety of practice settings, and be exposed to good faculty role models who provide support and positive feedback.

The current study's findings indicated that younger, less experienced nurses depicted lower job satisfaction scores. It is important that well-developed strategies be implemented for mentoring new graduates. For example, nursing
supervisors must realize the importance of ongoing recognition, praise, and constructive feedback on performance to staff nurses. Nurse administrators should keep pace with current knowledge on how to empower, motivate, and instill a sense of confidence in staff members during times of turmoil and uncertainty.

Conceptual frameworks that facilitate understanding of the complex array of factors that influence job satisfaction should be included in nursing curricula, as well as continuing education programs for nurse managers. While the Conceptual Model of Job Satisfaction highlights numerous factors that exert direct and indirect effects on job satisfaction, there are many other factors of equal importance, particularly in health care systems undergoing major changes. What is important is not so much the basic premises of any one model but rather its relevancy and usefulness for helping nurse educators and managers to promote understanding of how work environment factors impact nursing practice.

**Nursing Research**

There are a number of implications for nursing research which surface from this study's findings. The Conceptual Model of Job Satisfaction identified possible relationships between several work environment factors and job satisfaction. Study results indicated that workplace conditions, quality of care and safety concerns, and professional issues were strongly correlated with
levels of job satisfaction. Although these factors combined to explain a significant proportion of the variance in job satisfaction, the literature identifies other key factors that may impact job satisfaction in the aftermath of restructuring efforts in hospitals. For example, in the current context, there could have been a decline in nurses' professional and organizational commitments in response to the flattening of the administrative structure and decentralization of decision-making. These factors also may have had a negative effect on job satisfaction.

Although there has been extensive research on factors influencing nurses' job satisfaction, there has been limited investigation into the impact of health care reforms. Further research is needed to grasp a better understanding of those factors that have the greatest impact on job satisfaction when work environments are undergoing significant change. Of particular importance to the health care system and the nursing profession in Newfoundland is the impact that program management is having on nurses and clinical practice. As data collection for the current study occurred in the early stages of managerial restructuring, a follow-up study is greatly needed to document the long-term effects of this form of management.

Although job satisfaction is an important outcome variable, there are other provider outcomes that should be investigated in future studies (e.g., professional commitment, organizational commitment, intent to leave, absenteeism, etc.). Further, it would be meaningful to expand the population
base to include nurses working in other clinical areas (e.g., emergency, mental health, community health, long-term care, etc.). Finally, future research efforts should compare nurses' perceptions of the impact of health care reforms and ratings of job satisfaction across a variety of health care settings with different types of management structures.

**Summary**

The results of this study indicate that nurses are slightly more dissatisfied than satisfied with their jobs and are generally negative about the overall impact of health care reforms. Factors influencing nurses' job satisfaction are complex but include nurse characteristics, the ability to give quality care, professional issues, safety concerns and workplace conditions. Although the study findings are not generalizable, they support many of the findings of previous research, and when utilized, can better inform nursing practice, education, and research.
References


Appendix A

Letters Requesting Support of Program Managers
Ms. Elaine Warren  
Program Manager, Critical Care Areas  
Health Care Corporation  
St. John's, NF

Dear Ms. Warren:

I am conducting a research study for the thesis component of the Masters of Nursing program at Memorial University of Newfoundland. The purpose of this study is to determine nurses' perceptions of the impact of health care reform upon the quality of nursing care and nursing practice and to explore relations between nurse perceptions of health reform and job satisfaction. I have enclosed a brief summary of this study for your information.

I am requesting your support in principle of this study and your assistance in distribution of the questionnaires to the critical care areas of the 3 acute care adult hospitals in St. John's.

Please contact me at 754-2874 if you need any further information. Thank-you for considering my request. I look forward to hearing from you.

Sincerely,

Donna Pyne
Dear Ms. Pilgrim:

I am conducting a research study for the thesis component of the Masters of Nursing program at Memorial University of Newfoundland. The purpose of this study is to determine nurses' perceptions of the impact of health care reform upon the quality of nursing care and nursing practice and to explore relations between nurse perceptions of health reform and job satisfaction. I have enclosed a brief summary of this study for your information.

I am requesting your support in principle of this study and your assistance in distribution of the questionnaires to the medical areas of the 3 acute care adult hospitals in St. John's.

Please contact me at 754-2874 if you need any further information. Thank-you for considering my request. I look forward to hearing from you.

Sincerely,

Donna Pyne
Ms. Dorothy Westaway  
Program Manager, Surgical Areas  
Health Care Corporation  
St. John's, NF

Dear Ms. Westaway:

I am conducting a research study for the thesis component of the Masters of Nursing program at Memorial University of Newfoundland. The purpose of this study is to determine nurses’ perceptions of the impact of health care reform upon the quality of nursing care and nursing practice and to explore relations between nurse perceptions of health reform and job satisfaction. I have enclosed a brief summary of this study for your information.

I am requesting your support in principle of this study and your assistance in distribution of the questionnaires to the surgical units of the 3 acute care adult hospitals in St. John’s.

Please contact me at 754-2874 if you need any further information. Thank-you for considering my request. I look forward to hearing from you.

Sincerely,

Donna Pyne
Appendix B

Letter Informing Potential Participants about Study
Dear Nursing Colleague,

I am conducting a research study for the thesis component of the Masters of Nursing Program at Memorial University of Newfoundland. The purpose of this study is to determine nurses’ perceptions of the impact of health care reform upon the quality of nursing care and nursing practice and to explore relations between nurse perceptions of health care reform and job satisfaction.

The study sample will consist of full and part time nurses who are currently working in the critical care, medical and surgical units of the three adult acute care hospitals in St. John’s. (i.e., the General Hospital, S.A. Grace General Hospital, and St. Clare’s Mercy Hospital). Participation in this study is completely voluntary and anonymity will be maintained as participants will not be identified.

Would you please take approximately 15 - 20 minutes to complete the questionnaire? Questionnaires can be obtained from your divisional manager. A locked drop off box for completed questionnaires is located in the cafeteria.

If you have any questions regarding the study or the questionnaire, I can be contacted at 754-2874.

Sincerely,

Donna Pyne
Appendix C

Letters of Permission for use of Instruments
July 10, 1996

Donna Pyne, BN, RN
16 Hampshire Place
St. John's, NF A1A 4N4

Dear Ms. Pyne,

The Executive Committee of the Council of the Association of Registered Nurses of Newfoundland, at the meeting held July 5, 1996, approved your request to use the Perceptions of Health Care Reform Questionnaire (PHCRA), for your research study. We would appreciate receiving a copy of your results upon completion of the study.

We are able to provide you with a list of names and addresses of nurses who have given ARNN permission to use this information for research. However, we cannot break it down by employment agency. ARNN does not release data as to where nurses work.

We wish you every success with your research study.

Yours very truly,

Elizabeth Adey
Executive Director

cc. Heather Hawkins, Registrar
Permission to use form:

This gives permission to use the McCloskey/Mueller Satisfaction Scale (MMSS) to Donna Pyne for the purpose as stated in the request dated May 9, 1996.

The instrument may be reproduced in a quantity appropriate for this project.

Signed: Joanne McCloskey

Date: May 17, 1996
Appendix D

IHCRS
Part II: Health Care Reform

In this section of the questionnaire we are interested in knowing how you view the changes that have occurred in the health care system over the past 4 to 5 years. It is important that you respond to all items. Please circle the number that best describes your present position.

Use the following scale to rate your degree of agreement/disagreement with each statement:

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<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<td>1</td>
<td>Strongly Disagree</td>
<td>Moderately Disagree</td>
<td>Slightly Disagree</td>
<td>Slightly Agree</td>
<td>Moderately Agree</td>
<td>Strongly Agree</td>
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11. I have been provided with sufficient information to understand the importance of restructuring the health care delivery system in this province.

12. Health care reform is moving too rapidly with insufficient emphasis placed on quality consumer care.

13. Restructuring of acute, long-term and community based health care services will reduce costs while assuring reasonable availability and accessibility to all consumers in this province.

14. I believe that the movement towards ambulatory and community based care is a positive step in helping facilitate greater consumer accountability and responsibility for their own health.

15. I am reasonably confident that proposed or actual changes in health care delivery will provide nurses with an opportunity to gain greater control over their practice.
Part III: Quality of Health Care & Safety Concerns

The statements for this section refer to various aspects of care provided to consumers. The content is divided into two parts. Part A deals with quality issues, and Part B safety concerns. Again it is important that you respond to all items. Please circle the number that best describes your present position.

Use the following scale to rate your degree of agreement/disagreement with each statement:

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<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
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<th>Moderately Agree</th>
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**Part A: Quality**

16. Supplies/resources are often not adequate to ensure consumer comfort.
   - Number of responses: 1 2 3 4 5 6

17. Despite nursing personnel reductions in my area, it is still possible to adequately meet consumers' basic care needs.
   - Number of responses: 1 2 3 4 5 6

18. Because of the overwhelming demands on my time, I am sometimes forced to lower consumer care standards.
   - Number of responses: 1 2 3 4 5 6

19. I am relatively confident that consumers and family members receive adequate teaching and counselling in preparation for discharge.
   - Number of responses: 1 2 3 4 5 6

20. Due to the increasing acuity levels and complexity of care requirements, it is often not possible to adequately assess or tend to consumers' emotional/psychosocial needs.
   - Number of responses: 1 2 3 4 5 6
Use the following scale to rate your degree of agreement/disagreement with each statement:

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<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
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**Part B: Safety**

21. I am confident that in my agency nursing procedures are being performed in a safe and competent manner.

   1  2  3  4  5  6

22. Because there is adequate inservice education for new procedures and/or equipment, I believe consumers are not being placed at risk.

   1  2  3  4  5  6

23. Due to increased demands and stressors in the work place, consumers are more susceptible to potential harm from delays or errors in nursing care.

   1  2  3  4  5  6

24. I feel that most of the time we have the necessary equipment and supplies to not expose consumers to unsafe nursing care.

   1  2  3  4  5  6

25. The necessary health care resources are not always available in the community for consumers upon discharge.

   1  2  3  4  5  6
Part IV: Professional & Workplace Issues

Part A deals with professional issues, and Part B workplace concerns. Again it is important that you respond to all items. Please circle the number that best describes your present position.

Use the following scale to rate your degree of agreement/disagreement with each statement:

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Slightly Disagree</td>
<td>4</td>
</tr>
</tbody>
</table>

Part A: Professional

26. At my workplace, staff nurses meet regularly with nursing management to discuss concerns and strengths of the work environment and identify constructive ways to resolve problems and build on perceived strengths.

27. At my workplace opportunities are provided for me to keep current with latest developments in my area through reading and attending workshops, inservices, and teleconference sessions.

28. Because I feel powerless to change things where I work, it is difficult to be motivated to act as an advocate for consumers and families.

29. Due to increased acuity and shortened lengths of stay, it is not always possible to meet the ARNN nursing care standards.

30. As a consequence of recent changes in the health care system, I can appreciate the challenges facing the nursing profession and feel empowered to be an active participant in affirming an important role for nursing in the future.
Use the following scale to rate your degree of agreement/disagreement with each statement:

1 Strongly Disagree 2 Moderately Disagree 3 Slightly Disagree 4 Slightly Agree 5 Moderately Agree 6 Strongly Agree

**Part B: Workplace**

31. Because I work in a supportive environment and play an active role in decision-making, I am able to find the strength to give that 'extra' effort when my job demands it.

32. Due to the heavy workload in my workplace, I feel really frustrated with the reduced level of nursing care that is provided.

33. Although I strive to give/ensure consistent and competent nursing care, I rarely receive appreciation or recognition for what I do.

34. Increased demands and stress in the workplace have engendered a sense of disillusionment, low morale, and unpleasant working relationships with co-workers and other health care-providers.

35. With the restructuring of health care services and having to work with less, I find my time management skills have improved and my job has become more challenging.
Appendix E

MMSS
**McCloskey/Mueller Satisfaction Scale (MMSS)**

Copyright 1989

How satisfied are you with the following aspects of your current job?

Please circle the number that applies.

<table>
<thead>
<tr>
<th></th>
<th>Very Satisfied</th>
<th>Moderately Satisfied</th>
<th>Neither Satisfied nor Dissatisfied</th>
<th>Moderately Dissatisfied</th>
<th>Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. salary</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>2. vacation</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. benefits package (insurance, retirement)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. hours that you work</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. flexibility in scheduling your hours</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. opportunity to work straight days</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. opportunity for part-time work</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>8. weekends off per month</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. flexibility in scheduling your weekends off</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. compensation for working weekends</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. maternity leave time</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. child care facilities</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. your immediate supervisor</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>14. your nursing peers</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td></td>
<td>Very Satisfied</td>
<td>Moderately Satisfied</td>
<td>Neither Satisfied nor Dissatisfied</td>
<td>Moderately Dissatisfied</td>
<td>Very Dissatisfied</td>
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<tr>
<td>15. the physicians you work with</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>16. the delivery of care method used on your unit (e.g. functional, team, primary)</td>
<td>5</td>
<td>4</td>
<td>3</td>
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<td>1</td>
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<tr>
<td>17. opportunities for social contact at work</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>18. opportunities for social contact with your colleagues after work</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>19. opportunities to interact professionally with other disciplines</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>20. opportunities to interact with faculty of the College of Nursing</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>21. opportunities to belong to department and institutional committees</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>22. control over what goes on in your work setting</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>23. opportunities for career advancement</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>24. recognition for your work from superiors</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Item</td>
<td>Very Satisfied</td>
<td>Moderately Satisfied</td>
<td>Neither Satisfied nor Dissatisfied</td>
<td>Moderately Dissatisfied</td>
<td>Very Dissatisfied</td>
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<tr>
<td>25. recognition of your work from peers</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>26. amount of encouragement and positive feedback</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>27. opportunities to participate in nursing research</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>28. opportunities to write and publish</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>29. your amount of responsibility</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>30. your control over work conditions</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>31. your participation in organizational decision making</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
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</tbody>
</table>
Appendix F

Descriptive Profile
Part 1: General Information

The information that you provide in this section will facilitate comparisons within and between various areas of practice. Please answer every question. Circle one response only.

<table>
<thead>
<tr>
<th>PLEASE DO NOT WRITE IN THIS SECTION</th>
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</table>

1. **Area of Employment:**
   - 1. Intensive Care
   - 2. Coronary Care
   - 3. Surgical
   - 4. Medical

2. **Nature of Employment:**
   - 1. Full-time (permanent)
   - 2. Full-time (temporary)
   - 3. Part-time (permanent)
   - 4. Part-time (temporary)

3. **Total Number of Years Experience in Nursing:**
   - 1. Less than 1 year
   - 2. 1 to 2 years
   - 3. 3 to 4 years
   - 4. 5 to 9 years
   - 5. 10 to 19 years
   - 6. 20 years or greater

4. **Total Number of Years in Current Position:**
   - 1. Less than 1 year
   - 2. 1 to 2 years
   - 3. 3 to 4 years
   - 4. 5 to 9 years
   - 5. 10 to 19 years
   - 6. 20 years or greater
5. Educational Background: (circle one only, i.e. highest level)
   1. RN
   2. RN plus Diploma Course
   3. Baccalaureate or higher

6. Age in Years:
   1. 20 - 29
   2. 30 - 39
   3. 40 - 49
   4. > 50

7. Institution: __________________________
Appendix G

Letter of Approval from HIC
7 October 1996

TO: Ms. Donna Pyne

FROM: Dr. Verna M. Skanes, Assistant Dean
Research & Graduate Studies (Medicine)

SUBJECT: Application to the Human Investigation Committee - #96.136

The Human Investigation Committee of the Faculty of Medicine has reviewed your proposal for the study entitled "Nurses' Perception of the Impact of Health Care Reform and Job Satisfaction".

Full approval has been granted for one year, from point of view of ethics as defined in the terms of reference of this Faculty Committee.

For a hospital-based study, it is your responsibility to seek necessary approval from the Health Care Corporation of St. John's.

Notwithstanding the approval of the HIC, the primary responsibility for the ethical conduct of the investigation remains with you.

Verna M. Skanes, Ph.D.
Assistant Dean

cc Dr. K.M.W. Keough, Vice-President (Research)
Dr. E. Parsons, Vice-President, Medical Services, HCC
Dr. Christine Way, Supervisor
Appendix H

Letters of Support from Program Managers
Dear Ms. Pyne:

I received your proposal for a research study of "Nurses Perception of the Impact of Health Care Reform and Job Satisfaction". I support this study in principle. My only concern is that it be clearly understood by participants that the questionnaire is to be completed on non-work time only as to not interfere with patient care.

If you require any assistance in distribution of the questionnaires to the Critical Care areas of the three acute care adult sites, please contact me.

Yours sincerely,

Elaine Warren
Program Manager
Critical Care

General Hospital
Health Sciences Centre, 300 Prince Philip Drive, St. John's, Newfoundland, Canada A1B 3V6 Tel. (709)737-6300 Fax (709)737-6400
SITES: General Hospital • Janeway Child Health Centre/Children's Rehabilitation Centre • Leonard A. Miller Centre • St. Clare's Mercy Hospital • Salvation Army Grace General Hospital • Dr. Walter Templeman Health Centre • Waterford Hospital
September 13, 1996

Donna Pyne
16 Hampshire Place
St. John’s, Newfoundland
A1A 4NA

Dear Donna,

This is to confirm with you that I support, in principle, your proposed study related to the impact of restructuring on nursing staff. I will be available to assist you, as necessary, with questionnaire distribution and retrieval. Please contact me regarding this when you are prepared to commence data collection.

Best wishes.

Sincerely,

Patricia Pilgrim
Program Director
Medicine Program

PP/sh

HealthCare
Corporation of St. John's

General Hospital
Health Sciences Centre, 300 Prince Philip Drive, St. John’s, Newfoundland, Canada A1B 3V6 Tel. (709)737-6300 Fax (709)737-6400
SITES: General Hospital • Janeway Child Health Centre/Children’s Rehabilitation Centre • Leonard A. Miller Centre
St. Clare’s Mercy Hospital • Salvation Army Grace General Hospital • Dr. Walter Templeman Health Centre • Waterford Hospital
September 11, 1996

Donna Pyne
16 Hamshire Place
St. John's, NF
A1A 4N4

Dear Donna:

This is to confirm that we will support in principle and give assistance as discussed to your research study for the thesis component of the Masters of Nursing Program at Memorial University of Newfoundland.

I will contact the surgical units of the three acute care sites at the appropriate time, as we discussed.

I wish you all the best with this study. If I can be of any assistance, please don't hesitate to call me.

Sincerely,

\[Signature\]

Dorothy Westaway
Director, Surgery Program

/dd

Salvation Army Grace General Hospital

241 LeMarchant Road, St. John’s, Newfoundland, Canada A1E 1P9 Tel. (709)778-6222 Fax (709)778-6640

SITES: General Hospital • Janeway Child Health Centre/Children’s Rehabilitation Centre • Leonard A. Miller Centre
St. Clare’s Mercy Hospital • Salvation Army Grace General Hospital • Dr. Walter Templeman Health Centre • Waterford Hospital