HEALTH CARE RESTRUCTURING IN ACUTE CARE SETTINGS: IMPLICATIONS FOR REGISTERED NURSES' ATTITUDES

NORMA G.L. BAKER

Health Care Restructuring in Acute Care Settings:

Implications for Registered Nurses' Attitudes

by

Norma G. L. Baker

A thesis submitted to the

School of Graduate Studies

in partial fulfilment of the

requirement for the degree of

Master of Nursing

School of Nursing

Memorial University of Newfoundland

May 3, 2002

St. John's Newfoundland

Abstract

A descriptive correlational design was used to investigate acute care nurses' perceptions of the impact of health care reforms and their work-related attitudes and behavioral intentions following restructuring of acute care services in Newfoundland and Labrador. The interrelationships among the key study variables (i.e., personal characteristics and staffing issues, impact of reforms, work-related attitudes, and behavioral intentions) were also examined. The Conceptual Model of Behavioral Intentions (CMBI) was used as the framework for this study.

The stratified random sample was comprised of 223 registered nurses working in acute care settings under the institutional/integrated boards responsible for health care services in the eight health districts of the province of Newfoundland and Labrador. A response rate of 34.1% was achieved. The majority of respondents were female (97.8%), had a diploma/certificate education level (86.1%), were employed on a full-time permanent basis (76.2%), had 10 or more years of nursing experience (74%), were in their current positions for less than 10 years (64.1%), and were employed in facilities outside of the St. John's region (58.8%). The mean age of the sample was 38.26 ($SD \pm$ 8.07). Data were collected via a mail-out questionnaire (i.e., Employee Attitudes Survey) between November, 1999 and February, 2000.

Study findings indicated that acute care nurses were generally negative

about the overall impact of health care reforms five to six years post-implementation. Respondents were most negative about the emotional climate of the workplace and the quality of care, and most positive about the importance of reforms. As well, most respondents felt their employers had violated psychological contracts made upon hiring, were generally dissatisfied with their jobs, had slightly low levels of commitment to their organizations, and were uncertain about staying with current employers.

Most of the reform impact variables (i.e., importance of reforms, emotional climate, practice-related issues, quality of care, safety concerns, and standards of care) depicted significant, positive relationships with intervening attitudes (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment) and behavioral intentions (i.e., intent to stay). As well, intervening attitudes depicted significant, positive relationships with each other and behavioral intentions. Several personal characteristics (i.e., employment status, work experience, current position tenure, and age) and most staffing issues variables exerted a minimal, but significant, influence on work-related attitudes and behavioral intentions.

Study findings provided partial support for the major assumptions of the CMBI. Consistent with model predictions different combinations of reform impact variables exerted a direct effect on intermediate outcomes (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, and organizational

commitment) and behavioral intentions. As well, most intermediate outcomes were strong predictors of one another and behavioral intentions. As predicted, personal characteristics and staffing issues had limited influence on intermediate outcomes and behavioral intentions. Importantly, study findings did not always support the causal, linear process proposed by the CMBI (i.e., mediating influence of intervening attitudes for the reform impact variables and each other).

Although study findings supported previous research, generalizability of the results to other acute care nurses is cautioned. There is an obvious need for further research to develop a greater understanding of those aspects of the job and work environment most affected by health care reforms in the acute care sector. Most importantly, the onus is on health care researchers to investigate the long-term impact of system changes on nurses' work-related attitudes and behavioral intentions.

Acknowledgments

I am truly appreciative for the contribution and support of those individuals who facilitated the completion of this thesis.

To my thesis supervisor, Dr. Christine Way, for her patience and guidance, and for providing an invaluable learning experience.

To my committee members, Debbie Gregory and Jeannette Walsh, for their interest, understanding and constructive feedback.

To the Department of Health & Community Services, Government of Newfoundland and Labrador, the Health Care Corporation of St. John's, and the Canadian Health Services Research Foundation for financing this project.

To the ARNNL and staff for supporting this study and assisting with data collection.

To the acute care nurses who participated in this study, for their time and interest.

To my family, friends and colleagues for their ongoing encouragement and support. Especially to my parents, Grace and the late Hubert Baker, for instilling in me a belief in education and the confidence to accept new challenges. Although my brother, Lorne, is not here to share this accomplishment, his caring and support despite personal challenges will always be a source of inspiration to me.

To Maureen Corbett, a very special person in my life, for her patience,

understanding, laughter, motivation and assistance during the completion of this thesis.

Table of Contents

List of Tables

List of Figures

CHAPTER 1

Introduction

Driven by economic forces on one hand and a desire for improved health services on the other, Canadians have been the recipients of a host of health care reform initiatives for more than two decades (Skelton-Green & Singh Sunner, 1997). Early reform efforts were designed to control escalating costs and consisted primarily of budget reductions and wage freezes. More recently, provinces have resorted to substantive structural changes in an attempt to improve efficiencies in organizational services. Regionalization of health services, and organizational downsizing, re-engineering and restructuring have been the predominant reform strategies adopted by Canadian hospitals (Decter, 1997; Leatt, Baker, Halverson, & Aird, 1997; Shamian & Lightstone, 1997).

Nurses, the largest group of health professionals, have extremely high stakes in the arena of health reform (Turner, 1996). Many of the reform strategies implemented in the acute care sector have resulted in pervasive changes in governing and managerial structures, staffing levels, skill mix, and professional practice structures (e.g., Aiken, Clarke, & Sloane, 2000; Baumgart, 1997; Corey-Lisle, Tarzian, Cohen, & Trinkoff, 1999; Leatt et al., 1997; Shindul-Rothschild, Berry, & Long-Middleton, 1996). There is an extensive research base supporting the significant influence of the work environment on nurses' attitudes and behaviors (e.g., Blegen, 1993; Havens & Aiken, 1999; Irvine &

Evans, 1995; Mathieu & Zajac, 1990; Mueller & Price, 1990; Scott, Sochalski, & Aiken, 1999). Despite the increasing number of studies on select outcomes of health care reforms, there is conflicting evidence on how reforms are influencing job-related factors, the work environment, and staff nurses' attitudes and behaviors.

The current study is part of a larger project designed by Parfrey and colleagues[1] to examine the implications of reforms for acute care organizations in the province of Newfoundland and Labrador. The purpose of the larger study is to monitor the long-term impact on efficiency, costs, acute care bed utilization, quality of care, patient satisfaction, and employee attitudes (i.e., registered nurses, licensed practical nurses, allied health professionals, physicians, managers, and support workers). The current study focused on one aspect of the employee attitudes component of the larger study. The purpose of this study was to examine how registered nurses were perceiving the impact of reforms in acute care settings. A second purpose was to assess nurses' work-related

[1] The Department of Health and Community Services, Government of Newfoundland and Labrador, Health Care Corporation of St. John's, and the Canadian Health Services Research Foundation jointly funded a prospective, longitudinal study, *The Impact of Restructuring in Acute Care Hospitals in Newfoundland and Labrador*, by Parfrey et al. (1999).

attitudes (i.e., general job and restructuring satisfaction, psychological contract violation, and organizational commitment) and behavioral intentions (i.e., intent to stay with current employers).

Background and Rationale

There is extensive empirical support for the interrelationships among organizational structure/process, employee attitudes (e.g., job satisfaction, organizational commitment, etc.), behavioural intentions (i.e., intent to stay or remain, intent to leave, job search, etc.), and actual behaviours (e.g., absenteeism, turnover, job performance, etc.) (e.g., Alexander, Lichtenstein, Oh, & Ullman, 1998; Irvine & Evans, 1995; Mobley, 1982; Mobley, Griffeth, Hand, & Meglino, 1979; Mueller & Price, 1990; Price & Mueller, 1981; Somers, 1995). However, the research base is rather limited on how job-related and work environment factors may influence employee perceptions of violations in psychological contracts (Morrison & Robinson, 1997; Robinson & Rousseau, 1994; Robinson, Kraatz, & Rousseau, 1994; Turnley & Feldman, 1998, 1999). As well, the findings from studies in the business sector suggest that decreased employee trust, loyalty, job and organizational satisfaction, and intent to stay may surface as consequences of violations (Robinson & Rousseau; Robinson et al., 1994;Turnley & Feldman).

The expanding research base on the impact of downsizing and multi-

hospital mergers/consolidations suggests that most registered nurses have concerns about the negative consequences for the emotional climate of the workplace, quality of care, standards of care, satisfaction levels, and staffing and workload issues (e.g., Aiken et al., 2000; Armstrong-Stassen, Cameron, & Horsburg, 1996; Baumann et al., 2001; Blythe, Baumann, & Giovannetti, 2001; Corey-Lisle et al., 1999; Laschinger, Finegan, Shamian, & Casier, 2000; Laschinger, Sabiston, Finegan, & Shamian, 2001; Maurier & Northcott, 2000; Pyne, 1998; Shindul-Rothschild et al., 1996; Shindul-Rothschild, Long-Middleton, & Berry, 1997; Way, 1995; Way & Gregory, 2000; Woodward et al., 1999; Woodward et al., 2000). Significantly, studies designed to evaluate the impact of re-engineering initiatives (e.g., program-management, patient centred care, shared governance, etc.) have found minimal to no impact on job-related and work environment factors, and nurses' attitudes and behaviors (Anthony, 1999; Best, Walsh, Muzin, & Berkowitz, 1997; Bryan et al., 1998; Effken & Stetler, 1997; Hastings & Waltz, 1995; Ingersoll, Kirsch, Merk, & Lightfoot, 2000; Kennerly, 2000; Krugman & Preheim, 1999; Pillar & Jaroura, 1999; Seago, 1999; Westrope, Vaughn, Bott, & Taunton, 1995; Woodward et al., 2000). Although no studies were identified that examined the impact of health care reforms on psychological contract violation, Turnley and Feldman (1998, 1999) found that employees subjected to major restructuring were significantly more likely to believe that violations had occurred than their counterparts working in more

stable firms.

Despite the increasing data base on the overall impact of health care reforms, the heavy reliance on bivariate analysis and the use of diverse job-related and work environment factors are significant deterrents to the conclusiveness of study findings. As well, there continues to be limited empirical evidence documenting the extent to which reforms have significantly altered the impact of predictor variables on provider outcomes. Concerns have been raised that the negative impact of downsizing and restructuring on employee attitudes and behaviors may decrease organizational effectiveness and efficiency (Aiken & Fagin, 1997; Aiken et al., 2000; Decter, 1997; Maurier & Northcott, 2000; Seago, 1999). Greater insight into the influence of reform strategies on the attitudes and behaviors of direct care providers is obviously needed if we are to develop a comprehensive understanding of the overall impact of reforms on organizational effectiveness and efficiency.

Problem Statement

In Newfoundland and Labrador, reform initiatives were implemented on several fronts - regionalization, downsizing, restructuring, reengineering and mergers. The first level of reforms, regionalization of health care services, occurred between April, 1994 and January, 1996. Changes in the governance of health services at the regional levels led to the formation of four community

health boards, six institutional boards, and two combined boards (Davis & Tilley, 1996). The institutional boards are responsible for health care services (i.e. hospitals, community health clinics, nursing stations, etc.) within eight distinct geographic areas of the province: St. John's region, Eastern regions (Avalon and Peninsulas), Central East, Central West, Western, Northern, and Labrador.

The St. John's region, the largest employer of nurses in the province, has had the most pervasive health care reforms. Besides regionalization, hospitals have undergone downsizing, restructuring, re-engineering, and merger of facilities. Eight tertiary and secondary care facilities were consolidated in 1995 under the authority of the Health Care Corporation of St. John's (HCCSJ). Since that time, the children's rehabilitation centre was merged with the children's hospital, and one adult acute care hospital closed and it's services integrated with the two remaining acute care hospitals. In 2001, the children's hospital was relocated to a newly constructed site adjacent to a major tertiary care hospital. Finally, the various sites of the HCCSJ experienced integration of administrative and support services (e.g., human resources, financial systems, information systems, facilities management, health records, etc.) (Davis & Tilley, 1996).

In April of 1996, the HCCSJ eliminated the traditional departmental structure and integrated clinical services under a program-based management structure. A client-focused, interdisciplinary approach to care delivery was used to re-organize clinical and support services into 16 programs. Consequently, the

number of managers was reduced by about 50% and significant changes occurred in managerial roles and responsibilities. A professional practice model was also implemented to facilitate decentralized, collaborative decision-making. Finally, several initiatives (i.e., Nursing Peer Support Group, Nursing Professional Practice Framework, Corporate Professional Practice Committee, and Nurse's Quality of Worklife Team) were implemented to support nurses and facilitate nursing input into issues affecting practice and the work environment.

In 1995, the Association of Registered Nurses of Newfoundland and Labrador (ARNNL) commissioned a survey to obtain baseline data on registered nurses' (N = 333) perceptions of the impact of health care reforms in the province. This study was conducted during regionalization but prior to other system reforms. Significantly, most respondents to the survey were neither totally negative nor positive about the overall impact of reforms. While this earlier study provided useful baseline data, the many system changes that occurred after this time warranted further inquiry into how nurses were currently perceiving the impact of reforms.

In June of 1999, Parfrey and colleagues re-surveyed those nurses (N = 181) who participated in the 1995 study. The findings indicated that there was a significant worsening of nurses' attitudes toward the impact of reforms over time (Way & Gregory, 2000). It was conjectured that the close proximity of the survey to the nursing strike (i.e., members of the Newfoundland and Labrador Nurse's

Union participated in a legal strike in March which ended with a court injunction ordering nurses back to work in April) could have been partially responsible for the negative attitudes. An additional data base was considered necessary, especially in light of the post-strike initiatives undertaken to improve the quality of worklife. The current study, phase II, was conducted in January of 2000 with a stratified random sample of acute care registered nurses who had not participated in previous surveys. This study was designed to document nurses' perceptions of the impact of reforms, as well as their work-related attitudes and behavioral intentions, following the introduction of system changes to address nursing concerns within the proposed Conceptual Model of Behavioral Intentions (CMBI).

The CMBI is based on the integrated causal model of nurse turnover behavior (Mueller & Price, 1990; Price & Mueller, 1986) and the consequences of psychological contract violation (Turnley & Feldman, 1998, 1999). The CMBI identifies several factors which influence behavioral intentions. These factors include determinants (i.e., impact of health care reforms and/or job-related and work environment factors), covariates (i.e., intervening attitudinal states which include psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment), and correlates (i.e., select personal characteristics and staffing issues). The covariates also constitute the intermediate outcomes which exert a direct and indirect effect on behavioral

intentions, similar to the determinants. The proposed relationships among study variables are outlined in the research questions.

Research Questions

The current study was designed to answer the following research questions:

1. How do registered nurses working in acute care settings perceive the impact of health care reforms (i.e., importance of reforms, emotional climate, practice-related issues, quality of care, safety concerns, and standards of care)?
2. What are registered nurses' levels of psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and behavioral intentions (i.e., intent to stay)?
3. Are impact of health care reform variables significantly related to intermediate outcomes (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment) and behavioral intentions?
4. Are intermediate outcomes significantly related to each other and behavioral intentions?
5. Are the impact of health care reform variables, intermediate outcomes, and behavioral intentions a function of key personal characteristics (i.e.,

age, gender, education, region of employment, primary area of responsibility, nursing experience, current position tenure, and employment status) and staffing issues (i.e., hospital bed capacity, absenteeism due to sick leave, and staffing adequacy)?

6. What factors investigated in the current study are the best predictors of intermediate outcomes and intent to stay?

CHAPTER 2

Literature Review

Insight into the impact of health care reform on the attitudes of nurses working in acute care organizations is required to gain an understanding of the key factors influencing provider outcomes (i.e., general job and restructuring satisfaction, psychological contract violation, organizational commitment and intent to stay). This literature review is divided into three major sections. The first section provides an overview of health care reform initiatives, as well as their impact on organizational and provider outcomes. The second section summarizes the research findings on factors influencing provider outcomes (i.e., select intermediary and criterion outcomes). The final section presents an overview of the conceptual framework for this study, as well as the conceptual definitions of major variables.

Health Care Reforms: Employees in the Acute Care Sector

Since the early 1990's, decreased federal funding and escalating costs have resulted in the implementation of widespread reform initiatives throughout Canada's health care delivery system (Decter, 1997). Hospitals, in particular, have been undergoing an intensive period of transformation with organizations implementing such strategies as regionalization, downsizing, restructuring, and re-engineering. The primary focus of these reform strategies has been to

contain costs while maintaining effective quality health care. The discussion that follows is organized according to major health care reforms.

Regionalization/Multi-Hospital Arrangements

Regionalization of health services, through mergers and consolidations of multiple hospital boards, has been the dominant cost-reduction strategy used by most Canadian provinces (Decter, 1997; Shamian & Lightstone, 1997). This strategic approach has reduced the number of governance structures, eliminated duplication of operational services, and reduced administrative expenditures. The following discussion is focussed on the impact of regionalization at the corporate/board and staff levels.

Corporate/board level: Initiatives and perceptions. Few research studies were identified from the literature that evaluated the effects of regionalization and/or multi-institutional mergers. Three articles were identified that explored the impact of system changes on the autonomy of regional boards, cost efficiency, and the impact on various provider groups within the Canadian context (Davis, 1998/1999; Lomas, Woods, & Veenstra, 1997; Markham & Lomas, 1995).

Markham and Lomas (1995) conducted a review of relevant literature to identify the types of regional-based, multi-hospital arrangements within Canada and the United States, the advantages and disadvantages of such

arrangements, and evidence supporting their success or failure. With a broad number of options forming the basis for formally structured inter-hospital collaborations, the degree of autonomy retained by individual institutions surfaced as the key differentiating factor. The multi-hospital arrangements lay on a continuum from more autonomous structures (i.e., formal affiliations, shared services, and consortia) to decreasing levels of institutional autonomy (i.e., contract management, lease, umbrella corporations, and formal mergers or consolidations, respectively). Significantly, limited empirical evidence was found to support proposed benefits (i.e., economic/financial savings, improved access to and quality of care, more efficient human resource management, and increased coordination and expansion of complex services) within the Canadian context. In contrast, the authors found that costs may actually increase following the initial integration of new systems (e.g., compensation upgrades, facility modifications, etc.), access to services may decrease following reductions in duplication, and increased bureaucracy may lead to decreased flexibility, decreased communication and decreased responsiveness to clients. Finally, potential negative implications were identified for staff and physicians (e.g., increased uncertainty and anxiety, job loss, lack of role clarity, low morale etc.), as well as organizational/managerial instability (e.g., decreased individual organization autonomy, erosion of hospital loyalties, increased disruptions in referrals and clinical practice plans, increased bureaucracy, etc.). The authors

concluded that the most striking benefit of multi-hospital arrangements is that participating hospitals are forced to comprehensively review their missions and goals.

Lomas et al. (1997) reviewed the degree of devolution of health care decision-making power to local authorities in Canada. The authors noted that all of the provinces were at differing stages of devolution, with the exception of Ontario. Each province had a one-tier board structure responsible for planning, prioritizing, funding, and managing local services efficiently and effectively. However, local boards were constrained by their inability to generate revenue, fund services, or determine core services. The scope of services controlled by local boards was highlighted as the key distinguishing structural characteristic among jurisdictions. Variant scopes were reflective of the reform objectives of each provincial government, with a narrower scope indicating a desire to improve efficiency and integration/coordination, while a broader scope signified a focus on population health. The degree of devolved authority was contingent upon a negotiation process between provincial governments, providers, and citizens within each jurisdiction. As such, the devolution of authority across provincial jurisdictions lay on a continuum from low to high decision making (i.e., deconcentration, decentralization, and devolution, respectively). The authors concluded that most decision-making at the regional board level in Canadian provinces fell into either the deconcentration or decentralization category.

Davis (1998/1999) commented on the perceived impact of regionalization and institutional mergers/consolidations in Newfoundland and Labrador. As noted by the author, regionalization was mandated by the provincial government in an effort to reduce health care expenditures. Several benefits realized by local boards following regionalization were identified: a) greater responsibility for the health status of the region served, b) enhanced focus on health determinants, c) increased consumer involvement in decision-making, d) increased movement toward greater public accountability, e) greater focus on ethical values to guide decision-making, f) increased emphasis on evidence-based practice, g) increased opportunities to gain efficiencies in health care spending, h) greater involvement of staff and physicians in decision-making, I) increased commitment to align with external bodies, the public, and providers, and j) greater power to influence healthy public policy (i.e., 14 verus 40 boards). The negative consequences for regional boards included: a) increased anxiety and uncertainty among staff and physicians and feelings of being overworked, underpaid, undervalued, and not involved in decisions affecting them, b) decreased public confidence due to increased media attention on the performance of health care institutions, c) increased stress of limited financial resources, and d) increased conflict between evidence-based practice and consumer expectations.

Staff level: Perceptions of impact. There were very few studies

identified from the literature review that explored staff perceptions of regionalization and hospital mergers. Two articles were identified that reported on the negative impact of a hospital merger on job-related and work environment factors and work-related attitudes (Woodward et al., 1999; Woodward et al., 2000).

Using a random sample of staff (N = 346) working in a large teaching hospital in Ontario and a prospective, longitudinal design, Woodward et al. (1999) monitored changes in job characteristics, psychological distress, personal resources, family and work life interference, and perceived quality of patient care following re-engineering and merger with a second hospital. Several standardized scales were used to measure job characteristics (i.e., job influence, decision latitude, lack of role clarity, job demands, co-worker support, supervisory support, teamwork, and job insecurity). Psychological distress was assessed with standardized instruments (i.e., State Anxiety Scale, Maslach Burnout Inventory, and Centre for the Epidemiological Study Depression Scale). Additional scales were used to assess personal resources (i.e., self-efficacy, active coping style, readiness for organizational change, and coping using distraction), family and work interference, perceptions of hospital as employer (staff relations and work environment), perceptions of quality of care and services, and overall quality. Information was also collected on several demographic variables (e.g., age, gender, education, job type and level, etc.).

While no significant changes were detected in job influence and decision latitude, significant increases were observed in job demands, job insecurity, and lack of role clarity. Significant decreases were noted in co-worker and supervisor support, and effective teamwork. Furthermore, significant increases occurred in all of the psychological distress variables (i.e., anxiety, depression, and emotional exhaustion), as well as interference with work and family life. Finally, significant declines were observed in staff perceptions of quality care, quality improvement activities, staff/organizational relations, and overall impressions of the work environment.

In a second article, Woodward et al. (2000) reported on the differences observed in job-related and work environment factors, job satisfaction, and stress levels among front-line staff and designated/non-designated supervisors (N = 380). Data were collected at three time periods (i.e., 1995, 1996, & 1997) with the same instruments used in the Woodward et al. (1999) study. Two additional researcher-developed scales assessed job satisfaction and job stress. The authors noted that all study instruments had acceptable levels of reliability over time. The findings indicated that all levels of workers reported a significant increase in job insecurity, job demands, job interference with home life, and job stress; and a significant decrease in role clarity, supervisor support, teamwork, co-worker support, and job satisfaction. With regard to group differences, non-designated supervisors and staff had significantly higher job insecurity, and

lower job influence and decision latitude than designated supervisors. Furthermore, the staff reported working less hours than both non-designated and designated supervisors, and non-designated supervisors reported having less decision latitude and job influence than designated supervisors.

Within the Newfoundland and Labrador context, four surveys were conducted with registered nurses at various stages in the reform process (Pyne, 1998; Way, 1994, 1995; Way & Gregory, 2000). The studies addressed nurses' perceptions of the importance of reforms and the impact of system changes on the work environment, professional issues, quality of care, and safety issues. As well, Way and Gregory (2000) examined the impact of reforms on work-related attitudes and behavioral intentions.

In 1994, the Association of Registered Nurses of Newfoundland (ARNNL) conducted a qualitative study to explore nurses' (N = 347) perceptions of the early impact of regionalization initiatives in the province. The ARNNL Health Systems Changes Questionnaire was used to assess nurses' attitudes towards health care reforms, negative changes encountered in the workplace, effect of negative changes on patient care and nursing practice, and the possibility for future positive changes or opportunities. As reported by Way (1994), most survey respondents (86.5%) found caregiving demands stressful and perceived system changes in a negative light. In particular, staff reductions, excessive workload demands, and expanded role responsibilities were seen as having a

negative influence on nurses' job satisfaction, the quality of patient care, and professional practice. Overall, workplace issues were more of a concern than professional ones, and quality of care was more of an issue than safety concerns. On the positive side, 42.4% of the respondents identified enhanced resource utilization, health care delivery, and creative work roles and opportunities as positive outcomes of the proposed reforms. The major limitations of this study were the low response rate (6.9%) and use of a non-representative sample.

Using a survey design and a random sample of registered nurses (N = 333) stratified by region, Way (1995) acquired baseline data on the perceived effects of health care reforms. A researcher-developed scale, the Impact of Health Care Reform Scale (IHCRS), was used to assess the importance of health care reforms, quality and safety concerns, and workplace conditions (i.e., emotional climate and practice-related issues). The IHCRS was reported to have high internal consistency and good construct validity. Study findings indicated that most respondents were neither totally negative nor positive about the overall impact of health care reforms. Importance of reforms, practice-related issues, and safety issues, respectively, received the most positive ratings. Conversely, respondents were most negative about quality of care, the emotional climate of the workplace, and standards of care, respectively. Consistent with the findings of Way (1994), the work environment and quality of

care issues continued to be of primary concern. Personal characteristics were found to influence respondents' perceptions of reforms. Specifically, the importance of reforms were perceived most positively by nurse managers, and older, higher educated nurses. Quality of care, practice-related issues, and the emotional climate were also perceived most positively by nurse managers, and older, more experienced, and higher educated nurses. Finally, the adequacy of safety measures and standards of care were perceived more positively by nurse managers, and older, more experienced nurses.

Using a descriptive, correlational design, Pyne (1998) examined perceptions of the impact of health care reforms and job satisfaction levels in a convenience sample of registered nurses (N = 298) working in three acute care hospitals. The hospitals had been consolidated under the HCCSJ, and a program-based management and professional practice model implemented at all sites one year and six months prior to data collection, respectively. The IHCRS and the McCloskey/Mueller Satisfaction Scale (MMSS) (Mueller & McCloskey, 1990) were used to collect data in the critical care, medical, and surgical areas. The MMSS assessed job satisfaction in eight content domains (i.e., extrinsic rewards, scheduling, work/family balance, co-workers, interaction opportunities, professional opportunities, praise/ recognition, and control/responsibility). The findings indicated that nurses were more negative than positive about the overall impact of health care reforms and slightly dissatisfied with their jobs.

Significantly, the majority of nurses were most positive about the importance of reforms, safety issues, and practice-related issues, respectively. In contrast, respondents were most negative about quality of care, emotional climate, and standards of care, respectively. Despite the similarity in rankings with the Way (1995) study, there was a statistically significant decline in the overall impact and subscale scores. With regard to satisfaction levels, the majority of respondents were most satisfied with coworkers and interaction opportunities, and least satisfied with control/responsibility and extrinsic rewards. The author acknowledged that the use of a non-probability sample limited the generalizability of study findings.

Way and Gregory (2000) reported on the changes observed in perceptions of the impact of health care reforms in a follow-up survey of 181 registered nurses who participated in the Way (1995) study. The Revised Impact of Health Care Reform Scale was used to collect data on perceived reform impacts. Baseline data were also collected on job satisfaction (General Job Satisfaction scale of the Job Diagnostic Survey), restructuring satisfaction (Restructuring Satisfaction scale), organizational commitment (Organizational Commitment Questionnaire), perceived violation of psychological contracts (Psychological Contract Violation scale), and behavioural intentions (Intent to Stay scale). All of the instruments demonstrated good to excellent internal consistency and construct validity. The findings indicated that most respondents

were, in general, slightly negative about the overall impact of health care reforms. Specifically, respondents were most positive about the importance of reforms, safety issues, and practice-related issues, respectively. In contrast, respondents were most negative about the quality of care, emotional climate, and standards of care. These findings are consistent with those reported by Pyne (1998) and Way (1995). However, there was a significant worsening of nurses' attitudes toward the impact of reforms over time. Study findings also demonstrated that respondents were neither totally satisfied nor dissatisfied with their jobs, were generally dissatisfied with most aspects of restructuring, had a slightly low or neutral level of commitment to their organizations, felt that implied psychological contracts with the organization had been violated, and were uncertain about whether they would stay with current employers.

Summary. The evidence suggested that the extent of devolved decision-making authority to local boards varied considerably across provincial jurisdictions. The anticipated benefits (i.e., greater efficiency and effectiveness, and enhanced patient satisfaction) and limited negative impact on provider groups had not been achieved during the early years. In fact, study findings on nurses indicated that reforms were perceived to have had a negative impact on many job-related factors, work environment factors, work-related attitudes, and the quality of care over time (Pyne, 1998; Way & Gregory, 2000; Woodward et al., 1999, 2000).

Downsizing

With labour costs constituting approximately one half of all hospital expenditures, the majority of reform initiatives adopted by hospitals are aimed at reducing staff (Sochalski, Aiken, & Fagin, 1997). Reduction in staffing levels is achieved through such measures as redundancy of positions, early retirements, across-the-board cuts, contracting out of services, delayering of positions, and large-scale organizational redesign. As the largest group of health care providers in hospitals, nurses have been a prime target for reform initiatives. The following discussion addresses the magnitude of the decline in the nursing workforce, and the perceived impact of downsizing initiatives on workplace conditions, quality of care, and work-related attitudes.

Pervasiveness of staff reductions. In a review of relevant literature and data bases on the Canadian nursing workforce, Baumgart (1997) reported that acute care hospitals evidenced a dramatic decline in the proportion of registered nurses working in staff positions (i.e., 72.6% to 61.1%) during the peak period of health care reforms from 1990 to 1995. The decline in the overall nursing workforce, especially those working in acute care settings, continued until 1996 and remained relatively constant until 1999 when a slight increase occurred (Canadian Institute of Health Information [CIHI], 2000; Statistics Canada, 1995, 1996, 1997, 1998). There was also a significant decline in nursing management personnel after 1995, especially supervisors/coordinators and chief nursing

officers/directors (CIHI, 2000; Statistics Canada, 1995, 1996, 1997, 1998).

Comparatively, during the period of major health care restructuring in Newfoundland and Labrador, from 1994 onwards, no decreases occurred in the registered nurse workforce or the proportion working in acute care settings (CIHI, 2000; Statistics Canada, 1995, 1996, 1997, 1998). However, the province parallelled the Canadian scene for the period 1995 to 1997 with significant declines occurring in management personnel, especially supervisors/ coordinators (CIHI, 2000; Statistics Canada, 1995, 1996, 1997, 1998).

Workplace conditions, quality issues and attitudes. In a longitudinal, prospective study, Armstrong-Stassen et al. (1996) examined the impact of downsizing on the job satisfaction of full-time (67%) and part-time (33%) nurses employed in three community hospitals in Ontario. The sample consisted of registered nurses (n = 258) and registered practical nurses (n = 87) who completed the surveys at both time periods (i.e., baseline data in early 1991 and follow-up data in late 1992). The Minnesota Satisfaction Questionnaire assessed overall job satisfaction, and the Index of Organizational Reactions assessed satisfaction with aspects of the job and work environment. Good reliability was reported for these instruments. There were no significant differences between the full-time and part-time staff before or after downsizing on overall job satisfaction or degree of satisfaction with the job and work environment. However, significant declines were noted in the satisfaction levels

of both groups following downsizing, with the exception of financial rewards. Specifically, the nursing staff reported less satisfaction with the organization (i.e., poor treatment of employees, not a good place to work, and employee welfare less important than budgetary concerns), supervisors (i.e., disenchanted with managerial style and perceived negative impact on overall job attitudes), co-workers (i.e., increased tension), and career future with the hospital (i.e., diminished feelings about job security and promotion opportunity, and resulting negative impact on overall job attitudes).

Shindul-Rothschild et al. (1996) discussed the results of a national survey of 7,355 registered nurses (RNs) employed in different health care settings across the United States. The American Journal of Nursing (AJN) Patient Care Survey, an abbreviation of the RN Quality of Worklife Scale, was used to assess three dimensions of the health care delivery system (i.e., structure, process, and outcome). In the aftermath of downsizing and restructuring, most respondents reported reductions in the number of RNs providing direct care, reduced lengths of stay, increased patient acuity, increased bed closures, additional services, and increased workloads. Slightly less than one-half of respondents also reported a decrease in full-time RN staff, an increase in unskilled workers, and a reduction in nurse managers. As well, most nurses reported reduced continuity of care, less time to provide comprehensive nursing care (e.g., teaching patients and their families, comforting and talking with patients, providing basic care,

etc.), levels of care below professional standards, and an overall decrease in the quality of patient care in their institutions. Finally, a significant number of respondents perceived an increased in negative outcomes for patients (e.g., more readmissions, increased patient/family complaints, increased risk for iatrogenic disease for the elderly and critically ill, etc.).

In a secondary analysis of data obtained from a subset of nurses (n = 2,032) participating in the national survey, Shindul-Rothschild et al. (1997) investigated the best predictors of quality of care. During logistic regression analysis, it was possible to accurately predict 88% of hospitals with good to excellent ratings and 80% of those with poor or very poor ratings. Predictors of high-quality ratings included not reducing registered nurses in staff positions, retaining nurse executives, having time to provide basic nursing care, being able to meet professional standards, achieving positive patient outcomes (i.e., fewer family/patient complaints, ulcers/skin breakdown, patient injuries, medication errors, and complications), and tending to stay in nursing. Interestingly, changes in institutional infrastructures (e.g., mergers, bed closures, etc.) did not significantly affect nurses' perceptions of quality care. The best predictors of quality were changes in RN staffing and status of nurse executives. What was significant in the re-analysis was the large discrepancy between poorer and higher quality care institutions on RN reductions (i.e., 82% vs 45%, respectively) and loss of nurse executives (i.e., 49% vs 32%, respectively).

Corey-Lisle et al. (1999) reported on the results of a survey of a state-stratified random sample of registered nurses (N = 4,438) in the United States. Content analysis was performed on written comments (n = 375) of system changes provided mostly by hospital nurses in clinical positions with diploma or associate degree preparation. One major theme that emerged from the data analysis was the perception that hospitals moved to curtail or reduce costs without adequately considering negative implications for patient and provider groups. Other themes were related to the impact of downsizing and work design on nurses and nursing practice. Respondents felt that the cost-saving strategy of reducing the RN to unlicenced assistive personnel ratio had a negative impact on the quality of nursing care due to increased patient acuity and greater supervisory responsibilities. The theme of decreased job security was a function of increased secondment to unfamiliar patient areas, reduced benefits, increased requests to take unpaid leave, and greater casualization. Increased workload was perceived to have negative repercussions for quality care and nurses' stress levels. Finally, the interaction of RN staff reductions, increased job insecurity and increased workload were perceived to have resulted in decreased morale, increased stress and frustration, and decreased job satisfaction. Key factors influencing nurse perceptions included coworker attitudes, level of support from managers (i.e., level of information sharing, measures to reduce uncertainty and enhance feelings of control, and

conveyance of respect and appreciation), and opportunities for personal and professional growth. The authors noted that administrators play a pivotal role in helping nursing staff cope with the stress of health care reforms. One key strategy is to have nurses actively involved in the change process.

Using a comparative study design, Aiken et al. (2000) examined changes in nursing staff and practice environments in the aftermath of health care reforms. The authors summarized the key findings from a 1998 survey of registered nurses (N = 2,000) working in acute care hospitals, the vast majority of which were magnet hospitals. When compared to the 1986 data base from a subset of the same hospitals, a significant decline was noted in the nursing practice environment, especially with regard to resource adequacy, nurse manager support, and the status of nursing. In addition, a lesser number of nurses felt in control of their practice, felt free to make work and patient care decisions, believed there was a lot of teamwork with physicians, or perceived a decrease in the floating of permanent staff to other units. The authors concluded that restructuring efforts have exerted a negative impact on the quality of nursing care in hospitals noted for their quality and positive practice environments.

In a cross-sectional study of acute care registered nurses (N = 271), Maurier and Northcott (2000) reported on the stressors associated with health care restructuring (i.e., budget cuts and impending layoffs) in a large Alberta teaching hospital. Researcher-developed or adapted items were used to

measure perceived job security and likelihood of job loss, and stress levels. Good internal consistency was reported for the stress scale. Potential job loss was identified as the single most stressful work situation, followed by potential replacement with nursing aides and inability to meet the demands of others (i.e., physicians, patients, and other health providers, respectively). The fourth and fifth stressors included inadequate time/resources to provide emotional support to patients and families and working with inexperienced nurses, respectively. The authors acknowledged the limited generalizability of study findings due to the low response rate.

Laschinger et al. (2000) examined organizational trust, empowerment, and organizational commitment in a random sample of registered nurses (N = 412) working in urban tertiary care hospitals following major downsizing/ restructuring. A modified version of the well-established Conditions for Work Effectiveness Questionnaire (CWEQ-II) was used to measure empowerment along four dimensions (i.e., access to opportunity for growth, information, support, and resources). The modified Job Activities Scale II and the Organizational Relationships Scale II (Laschinger, 1996) were used to measure formal and informal power, respectively. The Interpersonal Trust at Work Scale (Cook & Wall, 1980) assessed trust in peers and management personnel. Two subscales of the Organizational Commitment Questionnaire (Meyer, Allen, & Smith, 1993) measured continuance and affective commitment. All of the study

instruments were reported to have strong internal consistency. The findings indicated that most respondents rated their work environments as moderately empowering, with access to opportunity and resources greater than access to information and support. In addition, respondents reported moderate informal but low formal power in their jobs, had moderate overall trust in their peers but low trust in management personnel, and were higher on continuance (i.e., balancing benefits of staying with consequences of leaving) than affective (i.e., emotional attachment and involvement) commitment. Study variables were not significantly influenced by personal characteristics (i.e., gender, age, years of experience, and education level). The author acknowledged the limitations of using a cross-sectional design.

Using qualitative data obtained from a subset of nurses (n = 230) participating in a provincial-wide survey, Laschinger et al. (2001) investigated the perceived impact of restructuring on working conditions in Ontario hospitals. The most frequent concerns related to quality of worklife (i.e., increased workload, casualization, job insecurity, and overemphasis on cost constraints; and, decreased career opportunities, financial rewards, support for continuous learning, and job satisfaction). The negative impact of system changes (i.e., reduction in available resources, inadequate staff and skill mix levels, increased safety issues, and increased cross-sharing of personnel) on the quality of patient care was a second major theme. Strained relations with management (i.e., lack

of support, positive feedback, and recognition; inadequate information flow about system changes; increased reliance on an authoritarian style; preoccupation with finances; mistrust; and reduced accessibility subsequent to role changes) was another common theme. The final theme, cumulative impact of work conditions on feelings and attitudes, captured the interactive effects of the first three themes on provider outcomes (i.e., increased burnout and low morale; increased stress, anxiety, and worries; decreased loyalty/commitment; declining physical health; and greater turnover/intent to leave). The authors concluded that the concerns expressed by study nurses support a growing sense of powerlessness and increasing dissatisfaction with the quality of worklife.

Using focus groups and face-to-face interviews, Blythe et al. (2001) examined the impact of restructuring (i.e., downsizing, unit and program mergers, and redeployment of staff) on registered nurses (n = 49) and licensed practical nurses (n = 10) employed in three hospitals in Ontario. Following thematic analysis, the data were collapsed into three major categorizes (i.e., fragmented, distant relations; increased unpredictability and uncertainty; and disembowelment or loss of control) which included relevant information for the individual, the nursing team, and the organization. At the individual level, respondents reported greater imbalances between work and home life (e.g., decreased energy to deal with family issues, loss of relationships with former colleagues, increased conflict and resentment among staff due to bumping and

redeployment, etc.), increased feelings of uncertainty (e.g., job insecurity, decreased career opportunities, financial concerns, etc.), and decreased control over their work (e.g., less efficient and confident working in unfamiliar practice settings; inability to meet professional/personal standards of care; concerned about safety issues and limited time for dealing with patients' psychosocial and spiritual needs; low staff morale and feelings of powerlessness, etc.). As well, respondents noted that job changes created disruptions (i.e., loss of both junior and experienced staff, greater use of registered practical nurses, and reduced middle management), negatively influenced interactions, increased uncertainty, and increased job responsibilities for the entire nursing team. At the organizational level, respondents felt that they had little input into restructuring policies, believed the organization was more focussed on finances than patient care, and felt relations had deteriorated between management and nurses (i.e., less communication, fewer channels to communicate nursing concerns to senior administration, and inadequate information about and support for planned restructuring initiatives, especially job change). In short, these nurses felt devalued, were distrustful of the organization, were disinclined to give extra of themselves to the organization, reevaluated their commitment to the organization, and felt that employer violations of psychological contracts increased their awareness of being powerless.

Baumann et al. (2001) examined registered nurses' (n = 1,453) and

registered practical nurses' (n = 209) perceptions of job change (i.e., new role, new unit, or new hospital) as a result of restructuring (i.e., downsizing and merging of facilities) in two large teaching hospitals in Ontario. The AJN Patient Care Survey assessed commitment to the profession, quality of work environment, and quality of care. Additional researcher-developed scales were used to measure team effectiveness, participation in redeployment planning, and job change experiences. The Organizational Commitment Questionnaire (OCQ) (Mowday, Steers, & Porter, 1979) was used to measure organizational commitment. Most respondents reported increased workloads, higher patient acuity, and more patient/family complaints. There was also less time available for teaching patients/families, providing basic care and comfort, interacting with patients, and documenting patient care. Approximately one-half of the nurses had experienced job changes within the past four years. Comparatively, nurses who had changed jobs felt less able to meet professional standards of care, and had less time to provide basic nursing care, to adequately document care and to talk with and comfort patients than those who had not changed jobs. Furthermore, nurses in the job change group were more likely to perceive greater increases in workload, patient acuity, patient/ family complaints, unexpected re-admissions, and medication errors than those who had not changed jobs. Within the job change group, 41.5% had moved to a new unit, 30.1% had moved to a new hospital, and 28.4% had assumed a new role on the

same unit. Nurses who had moved to a new hospital experienced more grieving and were less committed than those who had moved to a new unit or remained on their unit in a new role. Significantly, nurses assuming a new role within the same unit felt more part of the health care team, rated the team's effectiveness higher, and perceived less need for new knowledge, new skills, or a comprehensive orientation than nurses moving to new units or new hospitals.

Summary. The findings from the studies reviewed indicated that there has been a significant reduction in the nursing workforce employed in acute care settings. There is an increasing research base that suggests nurses are perceiving many of the changes associated with downsizing in a negative light. Specifically, negative impacts were reported for the work environment (e.g., skill-mix, staffing reductions, stress, co-worker support, etc.), job-related factors (e.g., job security, workload demands, decision-latitude, empowerment, etc.), standards and quality of care (e.g., time for basic care requirements, ability to meet professional standards, continuity of care, etc.), patient safety, and nurses attitudes and behaviors.

Re-engineering/Restructuring

Re-engineering and restructuring are also common approaches adopted by hospitals. Re-engineering is accomplished by re-thinking work processes with the aim of achieving efficiencies in care delivery (i.e., reducing labour costs,

changing skill-mix, cross-training staff, shortening length of stay, and introducing client-focus care through multidisciplinary teams). Restructuring involves revisiting the strategic focus of an organization with the goal of providing a full range of services across the continuum of care. Efficiencies are gained through inter-organizational arrangements, strategic alliances, and identifying programs to be dropped or added based on their ability to provide essential services (Leatt et al., 1997).

The discussion is divided into two sections. The first section examines study findings on the perceived impact of patient-centered care on job-related and work environment factors, as well as work-related attitudes. The second section examines study findings dealing with the perceived impact of nursing professional practice models on this same group of factors.

Patient-centered care/program management. Variant processes or methods have been adopted by organizations to facilitate restructuring or re-engineering of delivery systems. Monaghan, Alton, and Allen (1992) presented a synopsis of the different types of program management models described in the literature. One model retains the traditional management structure but focuses on identifying programs for marketing, strategic planning and budgeting purposes. A second model integrates a programmatic design within a matrix structure. In this model, services are coordinated through vertical and horizontal reporting relationships, and staff report to both a department and program

manager. The third model eliminates the traditional departmental structure, decentralizes responsibility for service delivery to specific clinical programs, and creates a program management position for coordinating care delivery and supervising clinical staff. With this type of model staff may have to report to a manager from a different discipline, thus appropriate measures (i.e., professional practice model) must be implemented to monitor professional practice standards.

Researchers have examined the impact of patient-centered care on job-related and work environment factors (e.g., interdisciplinary coordination and interactions, decision-making, autonomy, co-worker and supervisor support, organizational climate, etc.), organizational and patient outcomes (e.g., costs, resources, quality of care, patient satisfaction, etc.), and providers' work-related attitudes (e.g., job satisfaction, organizational commitment, etc.). The following review is restricted to staff perceptions of the impact of re-engineering approaches on select aspects of the job and work environment, and personal and co-worker attitudes and behavioral intentions. Conflicting findings have been reported on the effects of patient-centered care on job-related and work environment variables, and work-related attitudes (Bryan et al., 1998; Effken & Stetler, 1997; Pillar & Jarjoura, 1999; Seago, 1999).

Using a formative-evaluation design, Effken and Stetler (1997) investigated the impact of a patient-centered redesign program (i.e., redesign of organizational systems, collaborative practice, and information systems) on

intermediate outcomes (i.e., staff and consumer satisfaction, continuity, and critical roles), and 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 during data collection (i.e., prior to redesign and two year intervals post-implementation). The findings indicated that both staff and managers felt that the organizational culture had become more patient-centered, more reflective of decentralized decision making, and more conducive for creative thinking. In addition, there was evidence of more efficient operational systems (e.g., billing, admitting, materials delivery, etc.), improved coordination and consistency of patient-related assignments, more satisfied consumers and staff, and greater managerial feelings of being involved in decision-making and encountering less barriers to job performance. Significantly, units with more innovative and complete redesign of organizational systems, collaborative practice environments, and information systems were more likely to evidence higher staff and consumer satisfaction. As well, greater redesign of organizational and information systems depicted moderate to strong correlations with greater achievement of critical role components (i.e., critical paths and clinical protocols), while the presence of a more collaborative practice environment was moderately associated with greater continuity of care. Despite the positive movement towards quality outcomes (e.g., more positive ratings of hospital

services by patients; improvements in select clinical outcomes, etc.), most redesign measures and intermediate outcomes did not significantly impact quality. The only exceptions were the positive impacts of organizational redesign and critical pathways on costs. The authors acknowledged the limitations of study instruments and the generalizability of findings, and the importance of ongoing evaluation.

Bryan et al. (1998) used a quasi-experimental, longitudinal/repeated measures design to evaluate the impact of hospital restructuring prior to restructuring and at six monthly intervals. The Nurse Job Satisfaction Scale (Torres, 1988) assessed satisfaction, the autonomy sub-scale of the Job Characteristics Inventory (Sims, Szilagyi, & Keller, 1976) measured independence in practice, and a researcher-developed scale assessed nurse/physician collaboration. All instruments were reported to have good reliability. The findings indicated that job satisfaction improved at 6 months, returned to baseline at 12 months, and then improved significantly at 18 months. Comparatively, perceived collaboration with physicians (i.e., communication and shared responsibilities) improved at 6 months, stabilized between 6 and at 12 months, and increased substantially between 12 and 18 months. There were no significant differences in nurses' perceptions of autonomy over the 18 month period.

Seago (1999) reported on the results of a two-year longitudinal,

prospective study prior to and following implementation of a patient-focussed nursing care delivery system in a large university teaching hospital. The non-probability sample consisted of registered nurses (*n* = 199, 116, and 80), physicians (*n* = 183, 119, and 100), patient care/support assistants (*n* = 59, 23, and 15), and managers (*n* = 53, 37, and 29). The Karasek's (1985) Job Content Questionnaire (JCQ) assessed a number of job-related factors (i.e., decision latitude, psychological and physical work demands, job security, opportunities for creativity, social support, co-worker and supervisor support, relations with clients, recognition, and job dissatisfaction). Organizational climate and collaborative culture were assessed with the Organizational Climate Questionnaire (Duxbury, Henly, & Armstrong, 1982) and the Hospital Culture Scale (Klingle, Burgoon, Afifi, & Calister, 1995), respectively. Registered nurses, support staff and managers reported few changes on most job-related variables. The findings indicated that both managers and physicians felt that the collaborative culture had decreased. As well, there was a significant increase in the job dissatisfaction of both registered nurses and support staff. While registered nurses believed that supervisors gave them greater consideration, support staff experienced a significant decrease in skill discretion. The author concluded that study findings demonstrated the limited impact of the new delivery system on provider and organizational outcomes, but acknowledged that the low response rate and additional organizational changes (i.e., mergers)

during data collection could have compromised the findings.

Using a quasi-experimental, repeated measures design, Pillar and Jarjoura (1999) evaluated the impact of hospital re-engineering on the nursing staff and quality of nursing care at six month intervals over a one year period (i.e., prior to introducing patient-focused care and twice post-implementation). Data were collected from a random sample of registered nurses (n = 67) surveyed at all time periods, and three independent random samples for each survey time (n = 55, 43, and 45, respectively). Authority or legitimate power was measured with an 18-item summated rating scale developed by Blanchfield (1992), and the ability to engage in autonomous decision-making with the autonomy subscale of Stamps and Piedmont's (1986) Index of Work Satisfaction (IWS). A researcher-developed instrument assessed the staff's acceptance of the new model (i.e., commitment to patient-focussed care) and satisfaction with their ability to deliver quality care. All of the scales were reported to have moderate to high levels of internal consistency and stability. The findings revealed that no significant differences between the panel and independent samples on any of the study variables. Re-engineering efforts were not found to significantly impact perceived authority and autonomy, commitment to patient-focused care, and satisfaction with the quality of care on the study units over time.

Professional practice models. Many of the reform initiatives

implemented by hospitals have negative consequences for nursing in the short term (e.g., increased work loads, decreased staffing levels, altered skill mix, increased use of unlicensed personnel, etc.). One exception is the introduction of professional practice models. Magnet hospitals serve as exemplars for establishing excellent nursing practice environments which have led to positive patient and staff outcomes (Havens & Aiken, 1999; Scott, Sochalski, & Aiken, 1999). Research studies of magnet hospitals identified autonomy and control over clinical practice as significant factors influencing job satisfaction and productivity (Scott et al., 1999). Study findings also revealed that these hospitals consistently demonstrate the core attributes inherent to any nursing practice model: 1) professional autonomy over practice, 2) control over the practice environment, and 3) effective communication among nurses, physicians, and administrators (Havens & Aikens, 1999).

There is limited research supporting the effectiveness of different types of professional practice models. Several studies were identified that examined the impact of work redesign on provider outcomes. Many of these studies investigated the pros and cons of introducing shared governance models in acute care settings. This type of professional practice model uses team-building as its foundation, and emphasizes more autonomous decision-making while delivering care. Although it is conjectured that greater individual and professional autonomy enhances satisfaction and commitment, research findings

are inconsistent on the positive impact of shared governance models on job-related and work environment factors (Anthony, 1999; Best et al., 1997; Kennerly, 2000; Westrope et al., 1995). Conflicting findings have also been reported for the impact of professional practice models on work related attitudes (Best et al.; Hastings & Waltz, 1995; Kennerly; Westrope et al.).

In a prospective, longitudinal study of nursing staff working on 52 units within facilities under the University of Maryland Medical Centre, Hastings and Waltz (1995) examined the job satisfaction, organizational commitment, turnover intent and perceived effectiveness of the work environment in a sample of staff nurses prior to (N = 707) and two years after (N = 863) implementation of a professional practice partnership model. Model implementation was evaluated with the researcher-developed Partnership Readiness Scale (i.e., staff preparation for model implementation), and the Partnership Perception Scale measured staff perceptions of partnership functioning at the unit level. Job satisfaction was measured with the MMSS and Hackman and Oldham's (1980) General Job Satisfaction (GJS) scale; organizational commitment was assessed with the OCQ; and turnover intent with the Michigan Organizational Assessment Questionnaire. The University of Maryland Medical System Features Questionnaire assessed staff opinions about select aspects of employment and the work environment. All scales were reported to have well-established reliability and validity. The findings indicated that staff nurses were generally

positive about the intent and worthiness of the partnership and the unit system of care delivery. At both time periods, respondents were committed to their organizations, were slightly inclined to stay with current employers, and were slightly satisfied with their jobs. No significant changes were observed over time in job satisfaction, organizational commitment, or intent to leave. As well, there were no significant effects observed for select personal characteristics (i.e., age, education level, and organizational tenure) on any of the outcome variables.

In a longitudinal study of nursing staff, Westrope et al. (1995) evaluated the impact of shared governance on the work challenges, work meaningfulness, commitment, and turnover of staff nurses before implementation (N = 387), early implementation (N = 360), and mid-implementation (N = 292) in a tertiary care teaching facility. Standardized instruments were used to measure shared governance (i.e., control over practice), work challenge (i.e., decision saturation or involvement in decision-making at the unit and organizational level), and commitment (i.e., loyalty to the organization). Meaningfulness or work importance was measured in terms of task identity (i.e., perceived role importance and change in role importance), job involvement (i.e., individual identification with and attachment to job, and degree of job motivation and reward), and job satisfaction (i.e., general satisfaction and satisfaction with interactions and quality of care). Most respondents reported having moderate responsibility for influencing nursing practice at the three data collection periods.

The findings also revealed non-significant changes in work challenges (i.e., somewhat involved in unit decisions but less involved in organizational decision-making). As well, nurses were generally committed to the organization, but significantly more so at mid-implementation. While most respondents believed that others perceived their role as being important, they did not believe that nurse colleagues or other health care providers perceived nursing's role as being more important than one year earlier. As well, most nurses reported high job involvement and moderate satisfaction with interactions at both time periods. However, they tended to be significantly more satisfied with job enjoyment and the quality of care across the three data collection periods. Finally, the turnover rate steadily decreased from 19% to 6% over time.

In a longitudinal study, Best et al. (1997) investigated the impact of a "Healthy Hospital" project designed to improve participatory decision-making for all staff. Data were collected from registered nurses and allied professionals at baseline (n = 164 and 116, respectively). Additional data were collected at one and two years post-implementation from nurses (n = 102 and 82, respectively), support staff (n = 105 and 97, respectively), and allied professionals (n = 112 and 68, respectively). As well, data were collected twice during project implementation through focus groups (i.e., random sample of staff to identify needs) and semi-structured interviews (i.e., members of the project steering committee to identify lessons learned). The JCQ was used to measure job

stress along four dimensions (i.e., psychological job demands, decision latitude, social support, and hazardous exposure). The MMSS was used to assess job satisfaction. The Work Environment Scale (Abraham & Foley, 1984) assessed relationships (i.e., involvement, peer cohesion, and supervisory support), personal growth (i.e., autonomy, task orientation, and work pressure), and system maintenance and change (i.e., clarity, control, innovation, and physical comfort). The Organization-Based Self Esteem Scale (Pierce, Gardner, Cummings, & Dunham, 1989) was used to measure work-related self-esteem. All of the study scales were reported to have good reliability. Despite some inconsistencies, overall stress levels improved for nurses, the support staff, and allied professionals. Specifically, job demands, decision latitude, and social support increased significantly from baseline to one year implementation and then stabilized for the nursing group. While decision latitude increased significantly over time for the allied professionals, significant increases in job demands and social support only occurred between times 2 and 3. Finally, the support group evidenced significant increases in decision latitude, job demands, and social support between times 2 and 3. Although the nursing group evidenced significant changes between baseline and year one for overall job satisfaction, global self-esteem, and select satisfaction factors (i.e., family/work, interaction, professional opportunities, and control/responsibility), previous gains were either maintained or lost by times 3. Similar inconsistencies were observed

for the work environment variables (i.e., innovation, physical comfort, control, relationships, and system maintenance and change). Finally, the focus group results emphasized that program priorities should focus on improving communications and enhancing participatory decision-making. A common perception was that only moderate progress had been made toward developing a participatory management culture, with levels of management not visibly committed to this style of decision-making.

Using a descriptive correlational design, Anthony (1999) investigated the influence of decentralization and professional expertise on participatory decision-making (i.e., caregiving and unit operation) in a stratified random sample of nurses (N = 300) working on medical-surgical units in an acute care hospital in Cleveland, Ohio. The Job Authority Scale (Van de Ven & Ferry, 1980) was used to measure decentralization. A researcher-developed scale assessed whether or not nurses had been told by their peers that they were professional experts. A researcher-developed scale, Participation in Decision Activities Questionnaire, assessed decision-making along three dimensions (i.e., identification, design and selection). All of the study instruments were reported to have acceptable reliability. The findings indicated that nurses believed that they had considerable authority in job-related decisions. While only a slight majority of nurses had been told that they were experts (52.3%), most of those had longer unit tenures. As well, respondents reported some participation in all

aspects of caregiving decision-making, but limited participation in decisions related to unit operation. Contrary to expectations, degree of decentralization and expertise were found to only exert a minimal effect on participation in caregiving and unit operation decision-making.

Using a quasi-experimental, repeated measures design, Krugman and Preheim (1999) investigated the impact of a professional nursing practice model on the quality of nursing documentation and the job satisfaction and autonomy of staff nurses (n = 245, 272, and 330) working in a Colorado teaching hospital. Experimental units undergoing redesign were compared with control units at baseline and two and four years post implementation. Job satisfaction was measured with the MMSS, and autonomy with the Nursing Activity Scale (Schutzenhofer, 1987). A researcher-developed audit tool, based on institutional and accreditation criteria, was used to review 233 medical records to determine the quality of nursing documentation. The findings indicated no significant change over time in nurses' overall job satisfaction for both the experimental and control units. However, nurses who worked straight shifts and had a baccalaureate or higher degree of education were significantly more satisfied with their jobs than their counterparts who worked a shift rotation and had an associate degree or diploma level education. With regard to specific satisfaction domains, nurses working on the control units reported greater satisfaction with control and responsibility, praise and recognition, coworkers,

and interaction opportunities than their counterparts on the experimental units at two years post-implementation. Between baseline and four years post-implementation, significant decreases occurred in nurses' satisfaction with extrinsic rewards, control and responsibility, scheduling, and professional opportunities. In addition, nurses working on the control units demonstrated higher autonomy scores than their counterparts on the experimental units at baseline. Although nurses' autonomy scores remained unchanged over time for the control unit, those of the experimental unit nurses increased significantly after two years but experienced a significant decline after four years. Finally, the control units demonstrated more complete nursing documentation than the experimental units at all time periods.

Using a prospective, longitudinal design, Kennerly (2000) examined staff perceptions of work and the work environment prior to and at six-month intervals post-implementation of a shared governance model in a Midwestern hospital in the U.S. Several standardized instruments were used to monitor changes in autonomy, job satisfaction, organizational commitment, peer leadership, perceived conflict, role ambiguity, role conflict, and turnover. The findings revealed low levels of role ambiguity and role conflict, moderate to high levels of autonomy, and high levels of job satisfaction, perceived effectiveness, and organizational commitment before and after model implementation. Although implementation of the shared governance model was not found to significantly

effect any of the study variables, higher ratings of the work group's effectiveness were consistently and strongly correlated with greater job satisfaction, greater perceived autonomy, and lower interpersonal conflict across all time periods. The author concluded that failure of the model to exert a positive impact on perceived autonomy could be a function of the complex interplay among environmental and personal factors in a delivery system dominated by team-based decisions.

Summary. Study findings suggest that work redesign initiatives have demonstrated minimal to no effect on provider outcomes. Inconsistent findings (i.e., positive and negative effects) were observed in the longitudinal studies investigating the impact of patient-centered care. Similar inconsistencies were noted in longitudinal studies examining the impact of professional practice models.

Summary

Research studies have focussed primarily on evaluating the impact of downsizing, patient-focussed care, and professional practice models on provider outcomes. Despite major investments in organizational change, there are inconsistent findings on the impact of reforms on job-related factors, the work environment, and the attitudes and behaviors of staff nurses. Based on the current review of studies, the findings suggest that regionalization and

downsizing initiatives are much more likely to exert a negative impact on staff nurses attitudes and perceived quality of care than organizational redesign strategies (i.e., re-engineering and restructuring). Of particular significance were the study findings on nurses' perceptions of the impact of regionalization/ downsizing on key job-related and work environment factors (e.g., decreased job influence and job security, increased workload/demands, decreased co-worker and supervisor supports, increased stress, decreased quality of care, etc.). The evidence also suggests that re-engineering measures, designed to buffer the impact downsizing on providers, not only failed to do so but in some instances actually augmented the negative impact of other reforms. Further research is required to examine the long-term effects of extensive health care reforms on provider outcomes.

Factors Influencing Provider Outcomes

Several causal models of turnover behavior have been developed to explain the separate and interactive effects of determinants (i.e., job-related and work environment factors), work-related attitudes (i.e., job satisfaction, work satisfaction, organizational commitment, etc.), behavioral intentions, and personal characteristics or correlates on turnover (e.g., Alexander et al., 1998; Curry, Wakefield, Price, Mueller, & McCloskey, 1985; Mueller & Price, 1990; Mobley, 1982; Mobley et al., 1979; Mowday, Porter, & Steers, 1982;

Parasuraman, 1989; Price & Mueller, 1981, 1986). Most of these integrated models postulate that determinants exert a direct effect on attitudes, but only indirectly influence behavioral intentions and actual turnover through attitudinal states. There is some empirical data supporting the major premises of these models.

Although the construct of psychological contract violation was highlighted in the literature in the 1970s, it has recently received renewed attention in the business literature. Turnley and Feldman (1998, 1999) proposed an integrated causal model that depicts psychological contract violation as consequences of alterations in job-related and work environment factors. The intensity of contract violations are believed to be moderated by situational factors and personal characteristics. There is also some empirical support for the impact of psychological contract violation on job satisfaction, organizational commitment and intent to engage in job search or quit.

The following sections summarize research findings on job-related and work environment factors influencing psychological contract, job satisfaction, organizational commitment, and intent to stay/leave. Consideration is also given to the interrelationships among work-related attitudes and behavioral intentions, as well as the effect of personal characteristics on both attitudes and behaviors. The review of relevant studies is organized according to major study variables.

Psychological Contract Violations

Psychological contracts refer to personal beliefs about the terms and conditions of a reciprocal agreement between employees and employing organizations (Morrison & Robinson, 1997; Robinson & Rousseau, 1994; Rousseau, 1990). Psychological contracts differ from other types of contracts in that employee and employer obligations are defined from the employee's perspective (Robinson & Rousseau, 1994). Employees' beliefs that they owe the employer certain obligations (e.g., hard work, loyalty in exchange for future promises, etc.) in return for certain inducements (e.g., high pay, job security, promotion, etc.) are the basic tenets of the psychological contract.

Psychological contracts are categorized as either transactional or relational. Transactional contracts are usually short-term and typically involve specific monetary exchanges over a definite time period. In contrast, relational contracts are characterized by a long-term commitment, hard work and loyalty by the employee in exchange for job security, training, development, and promotion. A psychological contract violation occurs when either the employee or employer fails to fulfill promised obligations (Morrison & Robinson, 1997; Robinson et al., 1994; Robinson & Rousseau, 1994). Such contract violations constitute a breach of trust and create a sense of wrongdoing and betrayal which have widespread implications for the employment relationship.

Studies examining the impact of major system reforms on employees'

perceptions of psychological contract violations are quite limited and non-existent in the health care field. The following discussion presents an overview of research findings on job-related and work environment factors found to influence implied contract violations. Empirical evidence is also presented on the consequences of contract violations and situational mediating variables.

Environmental conditions and contract violations. Rousseau (1990) investigated the beliefs regarding employment obligations of graduating full-time masters students from a Midwestern management school (N = 224) who recently had accepted job offers. A researcher-developed questionnaire measured: a) careerism or the expectation of changing employers frequently during one's career (α = .78), b) the extent to which recruits desired a job with a specific organization (α = .80), c) expected tenure with an organization, and d) employees' perceptions of personal and employers' obligations. The findings suggested that individuals' perceptions of employer and employee obligations during recruitment are consistent with two distinct types of psychological contracts (i.e., transactional or relational). Consistent with transactional contracts, employer obligations (i.e., high pay, merit pay, training, and development) were significantly related to employee obligations (i.e., overtime, volunteering for non-required roles, advance notice of termination, and no pressure for company loyalty). In contrast, relational contracts evidenced significant associations between employer obligations of job security and

employee loyalty and commitment to a minimum length of stay. When employees' perceived transactional contracts, there was a greater tendency to view current jobs as short-term and important steps to career advancement. Conversely, employees' perceptions of relational contracts were associated with a greater tendency to support longer organizational and current job tenures.

In an exploratory longitudinal study, Robinson et al. (1994) investigated changes in perceived employee and employer obligations and the impact of contract violations on such obligations in a sample of alumni from a MBA degree program 3-weeks prior to graduation (n = 224) and after 2-years of employment (n = 215). A researcher-developed instrument, based on interview data from personnel and human resources managers, assessed employer obligations (i.e., advancement, high pay, merit pay, training, job security, development, and support) and employee obligations (i.e., overtime, loyalty, volunteering for non-required roles, advance notice of termination, willing to accept transfers, refusing to support competitors, proprietary protection, and minimum of a 2-year stay). Contract violation was measured with a single item (i.e., how well employers fulfilled obligations). Test-retest analysis confirmed the strong reliability of all study instruments. Factor analysis confirmed the construct validity of the instrument measuring perceived obligations (i.e., two distinct types of employee and employer obligations - transactional and relational). The findings also indicated that employees' perceived obligations to employers significantly

decreased over time, while employees' perceptions of their obligations to employers significantly increased. While perceptions of employer violations of implied contracts were found to exert a strong negative affect on employee transactional and relational obligations, they did not significantly alter perceptions of employer transactional and relational obligations.

Robinson and Rousseau (1994) examined how employers fail to fulfill promises in a sample of MBA alumina graduates (N = 209). A single-item was used to assess the degree to which employers had fulfilled perceived obligations. Respondents who indicated that violations had occurred were also asked to describe their experiences. The majority of respondents (58.9%) indicated that they had experienced at least one instance of contract violation by employers. Content analysis of the data revealed ten distinct categories of violations (i.e., training/development, compensation, promotion, nature of job, job security, feedback, change management, responsibility, representation of employees, and other). The findings suggested that violations occurred mostly in areas associated with human resource management (i.e., compensation, training/development, and promotion). Finally, employees who tried to remedy the perceived breach were more likely to report higher levels of contract fulfilment than those who failed to take remedial action.

Turnley and Feldman (1998) examined the impact of organizational restructuring/downsizing on perceptions of psychological contract violations in a

sample of managers and executives (N = 541) in several settings (i.e., bank, state agency, and alumni of a graduate business school). A researcher-developed scale was used to assess overall violations and discrepancies in rewards and commitments. Sixteen job factors, consisting of both monetary and non-monetary aspects identified by Rousseau (1990), were also rated from -2 (*received much more than promised*) to +2 (*received much less than promised*) to assess the specifics of perceived violations. Researcher-developed one item scales with dichotomous ratings (i.e., high and low) were used to assess factors mitigating responses to violations (i.e., procedural justice or fairness of organizational decision-making policies, likelihood of future violations, and quality of work relations with supervisors and colleagues). The findings revealed that one-quarter of the managers experienced psychological contract violations. The qualitative comments indicated that managers varied on what constituted such violations. If the situation was appraised to be within employers' control (i.e., deliberate or unnecessary), then employees' were more likely to perceive that violations had occurred. As well, managers subjected to major organizational restructuring were much more likely to report contract violations than their counterparts in more stable organizations. Specifically, managers working in firms with greater restructuring were significantly more likely to identify problems with job security, input into important decisions, opportunities for advancement, health care benefits, power, and responsibility than their

counterparts in more stable firms. Finally, managers who perceived high procedural justice (i.e., fairness in layoffs, pay raises, and promotions), low likelihood of future violations, and more positive relations with supervisors and co-workers were significantly less likely to report contract violations.

In a follow-up study, Turnley and Feldman (1999) examined group variations in psychological contract violation. A fourth group of expatriates and managers in international business (n = 263) were added to the original sample (n = 541). Study instruments were similar to those used in the Turnley and Feldman (1998) study, with the exception of scale modifications for the mitigating variables (i.e., incorporation of additional items and use of 4 and 5 point rating scales). The findings indicated that managers working in organizations with the most downsizing and restructuring (i.e., bank and state agency) reported higher levels of psychological contract violations. Those managers were also more likely to identify violations of job security, compensation benefits (i.e., differences between promised and actual pay raises, salaries, and bonuses), and advancement opportunities than their counterparts working in more stable firms. With regard to the mitigating variables, most respondents were able to identify attractive employment alternatives, felt that the external environment was largely responsible for violations of implied contracts, and believed that organizational policies dealing with layoffs and termination were fair. Finally, lower levels of contract violations

were significantly associated with greater justification for the organization's actions and greater external environmental control.

Consequences of contract violations. There is some empirical data on what happens to employees who experience a contract violation. Researchers have investigated the impact of contract violations on job and organizational satisfaction, trust, intent to stay, and turnover (Robinson & Rousseau, 1994), while others have explored their impact on exit, voiced objections, loyalty, and neglect behaviours (Turnley & Feldman, 1998, 1999). Consideration has also been given to situational factors that may buffer the impact of contract violations.

In a longitudinal, prospective study of a sub-sample of MBA allumni graduates (n = 96), Robinson and Rousseau (1994) examined the impact of psychological contract violation on select outcomes (i.e., trust, job and organizational satisfaction, intent to remain, and turnover). Researcher-developed scales assessed careerism orientation, trust in employers, satisfaction with work and the organization, employers' fulfilment of obligations, intentions to remain, and turnover. Factor analysis confirmed the unidimensionality of each scale, and acceptable internal consistencies were derived for the careerism, trust, and satisfaction scales. The findings indicated that slightly more than one-half of respondents felt that employers had failed to fulfill perceived contract obligations. In support of the study's hypotheses, greater psychological contract violation was strongly associated with less

employee trust, job and organizational satisfaction, and current intentions (i.e., at follow-up) to remain with the organization. As well, higher levels of implied contract violations were moderately associated with greater turnover. During regression analysis, contract violations accounted for 16% of the explained variance in intent to remain. Significantly, careerism was only found to moderate the relationship between implied contract violations and trust.

Turnley and Feldman (1998,1999) investigated possible consequences of psychological contract violation, as well as moderators of the impact of violations on the direction and intensity of consequences. It was proposed that employees would respond to contract violations by increased exit attempts, increased voicing of concerns to superiors, decreased loyalty with regard to affective commitment and defending the organization to outsiders, and greater neglect of job responsibilities. It was further hypothesized that certain situational factors (e.g., available alternate employment opportunities, procedural justice, etc.) would moderate the effect of perceived violations on outcomes. A summary is presented of the studies designed to test these hypotheses.

Turnley and Feldman (1998) investigated consequences of psychological contract violation in a sample of managers and executives (N = 541) in several settings (i.e., bank, state agency, or alumni of a graduate business school). Several instruments and scales, with strong internal consistency, were used to assess consequences (i.e., increased exit attempts, more voiced objections,

decreased loyalty, and greater neglect). The findings indicated that higher levels of psychological contract violations were significantly associated with lower levels of loyalty and greater exit attempts, voiced objections, and neglect behaviours. As well, managers working in restructuring firms were significantly more likely to intend to quit, to engage in job search behaviours and to be less loyal than their counterparts in more stable firms. Finally, managers who perceived a high degree of procedural justice, low likelihood of future violations, and good working relationships with supervisors and co-workers were significantly more likely to remain committed to their organizations, and less likely to perceive implied contract violations, to intend to quit or engage in job searching, and to engage in voice or neglect behaviours.

In a subsequent study, Turnley and Feldman (1999) reassessed the empirical soundness of the relationships among psychological contract violation, moderator variables, and consequences of violations. The findings indicated that the higher the level of perceived contract violations, the more likely that managers would consider leaving the organization, would have engaged in voicing their objections to upper management, and would have neglected job performance activities. Conversely, greater perceived violations were significantly associated with reduced loyalty to the organization. During regression analysis, three situational variables (i.e., availability of attractive employment, justification sufficiency for the violation, and procedural justice)

were entered into separate predictive equations for exit, voice, loyalty, and neglect. All of the situational variables moderated the effect of violations on exit behaviours (i.e., high job search when violations were high, justification sufficiency and procedural justice low, and attractive alternatives available). Conversely, none of the situational variables moderated the relationship between contract violations and voice, loyalty, or neglect. As well, select demographic variables (i.e., age, gender, and organizational tenure) were not found to influence psychological contract violation.

Summary. Study findings consistently demonstrated that psychological contract violation were most often related to training/development, compensation, and promotion. The findings also suggested that situational variables (e.g., procedural justice, quality of work relations, extent of restructuring, etc.) may buffer the impact of implied contract violations. The implication is that the work environment can enhance or decrease employees' perceptions of contract violations. Importantly, study findings also indicated that perceptions of implied contract violations have negative consequences for future responses (e.g., intent to leave, job and organizational satisfaction, job performance, etc.). Although inconsistent findings were reported on the impact of situational moderators, it is apparent that these factors and others warrant additional research with similar and different populations.

Job Satisfaction

Job satisfaction is generally characterized as a person's affective response to a job (Mowday, Steers, & Porter, 1979; Price & Mueller, 1981, 1986). This construct has been operationalized globally and dimensionally. Global measures assess overall job satisfaction, while dimensional measures provide information on the degree of satisfaction with specific job components (e.g., pay, work, co-workers, supervision, etc.) (Price & Mueller, 1986).

In nursing turnover models, job satisfaction is depicted as an intervening variable, along with intent to stay and/or commitment (Alexander et al., 1998; Curry et al., 1985; Irvine & Evans, 1995; Mueller & Price, 1990; Price & Mueller, 1986). Job satisfaction has been differentiated from commitment in terms of its volatility. That is, job satisfaction is more responsive to day-to-day events, whereas commitment is more stable and reflective of a person's overall loyalty to an organization (Mowday et al., 1979).

Meta-analytic study findings. There are numerous studies which have examined the influence of job-related and work environment factors on employees' job satisfaction. The most comprehensive overview of influencing factors is provided by meta-analytic studies of nurses (Blegen, 1993; Irvine & Evans, 1995).

In a meta-analysis of 48 studies of primarily hospital-based nurses (N = 15,048), Blegen (1993) investigated factors affecting job satisfaction. The

analysis was restricted to studies that sampled registered nurses providing direct care, used quantitative analysis, presented an overall job satisfaction score, and reported bivariate correlations between job satisfaction and job-related and work environment factors, and personal characteristics. Thirteen variables were found to significantly correlate with job satisfaction. The results indicated that greater job satisfaction was strongly correlated with less stress and greater organizational commitment. In addition, higher levels of job satisfaction depicted low to moderate correlations with more positive communication with supervisors and peers, less routinization, and greater autonomy, recognition, and fairness in reward distribution. With regard to personal characteristics, less external locus of control depicted low to moderate correlations with greater job satisfaction. Finally, older age, less education, more years of experience, and greater professionalism were observed to exert a minimal effect on greater job satisfaction. The author concluded that given the multiple factors influencing job satisfaction, future studies should use analytical procedures capable of documenting the separate and interactive effects of predictor variables.

In a meta-analytic study, Irvine and Evans (1995) used Mueller and Price's (1990) integrated causal model to examine factors influencing job satisfaction. The effects of economic (i.e., pay and external employment opportunity), structural (i.e., job characteristics and work environment), and psychological/individual factors (i.e., age, work experience and organizational

tenure) were examined, as well as the interrelationships among job satisfaction to behavioral intentions, and turnover behaviour. Study inclusion criteria was similar to those used by Blegen (1993). The findings indicated that job-related and work environment factors depicted moderate to strong relationships with job satisfaction, whereas economic and psychological/individual factors exerted a minimal or low effect. In particular, greater job satisfaction was associated with less routinization, greater autonomy and feedback, and lower levels of role conflict, role ambiguity, and work overload. With regard to the work environment, greater job satisfaction was significantly correlated with more effective supervisory relations and supervisor leadership, less stress, and greater advancement opportunities and participation. As well, greater job satisfaction was significantly associated with higher pay and lower alternate employment opportunities. Personal characteristics (i.e., older age, more years of experience, and greater organizational tenure) exerted a low but significant effect on greater job satisfaction. Finally, greater job satisfaction was strongly associated with less intentions of leaving and a greater intent to stay.

In summary, the findings from the meta-analyses of study findings on health care providers supported the stronger influence of job-related and work environment factors than personal characteristics on the job satisfaction of staff nurses. Many aspects of the job and work environment have undergone significant change that may have far-reaching effects on health care delivery.

The discussion that follows highlights some key findings from studies conducted with nurses working in acute care settings at different phases of reform.

Early stages of reforms. A few studies were identified from the research literature that examined health care providers satisfaction levels early in the reform process but prior to major organizational re-engineering initiatives. The following review is restricted to those articles not included in the meta-analytic studies discussed above. While study findings are similar to the meta-analysis results, there is also strong support for the predictive effects of key job-related and work environment factors (e.g., stress, commitment, role conflict, role ambiguity, decision latitude, co-worker and supervisor support, control, empowerment, etc.) on job satisfaction (Brown et al., 1999; Laschinger & Havens, 1996; Lucas, Atwood, & Hagaman, 1993; Kroposki, Murdaugh, Tavakoli, & Parsons, 1999; Tumulty, Jernigan, & Kohut, 1994; Morrison, Jones, & Fuller, 1997).

Lucas et al. (1993) tested the Anticipated Turnover Model in a sample of registered nurses (N = 385) from public and private urban hospitals in the southeast United States. Group cohesion and job stress were measured with the Byrne Group Cohesion Scale (Good & Neilson, 1973) and the modified Job Stress Scale (Atwood & Hinshaw, 1981), respectively. Organizational and professional job satisfaction were assessed with the modified Organizational Work Satisfaction Scale (Hinshaw & Atwood, 1985) and the modified Brayfield

and Rothe Index of Job Satisfaction (Hinshaw & Atwood, 1980), respectively. All of the study scales were reported to have strong internal consistency. During regression analysis, two job-related variables (i.e., group cohesion and job stress) and select personal characteristics combined to explain 46% and 50% of the explained variance in organizational and professional satisfaction, respectively. Greater group cohesion and less job stress emerged as the strongest predictors, exerting direct effects on higher levels of organizational and professional job satisfaction. Most personal characteristics (i.e., experience, critical care, medical surgical, and shift rotation) were found to exert an indirect effect through either group cohesion or job stress.

Tumulty, Jernigan, and Kohut (1994) investigated the impact of key aspects of the work environment on the job satisfaction of registered nurses (N = 159) working for a multi-site hospital in the metropolitan area of a southeastern state in the U.S. Job satisfaction was measured with the IWS. The Work Environment Scale (Abraham & Foley, 1984) was used to assess relationships (i.e., involvement, peer cohesion, and supervisor support), personal growth (i.e., autonomy, task orientation, and work pressure), and system maintenance and change (i.e., clarity, control, innovation, and physical comfort). Both scales are reported to have good reliability and validity. The findings revealed that nurses had low levels of job satisfaction, but were slightly positive about most aspects of the work environment. Respondents were most satisfied with professional

status, interactions, and autonomy, and least satisfied with organizational policies, task requirements, and pay. As well, nurses with high levels of job satisfaction viewed the relationship and system components of the work environment significantly more positively than their co-workers with low levels of job satisfaction. No significant differences were noted between low and high satisfaction levels of nurses for the personal growth component. In addition, managers were significantly more satisfied than non-managers, and full-time and part-time staff significantly more satisfied than weekend only staff. Education level and clinical speciality were not found to influence satisfaction levels.

Laschinger and Havens (1996) examined the relationship between work empowerment and control over nursing practice, and work satisfaction and effectiveness for staff nurses (N =127) employed in two U.S. teaching hospitals. The CWEQ (Chandler, 1986) was used to assess perceptions of access to sources of work empowerment (i.e., information, support, resources, and opportunity). The Job Activities Scale and the Organizational Relationships scales measured formal and informal power, respectively. Gerber's (1990) Control over Nursing Practice Questionnaire was used to assess work autonomy or control over practice. Global measures of Bass's Multifactor Leadership Questionnaire (MLQ) (Bass & Avoli, 1990) were used to assess job satisfaction and work effectiveness. All scales were reported to have satisfactory reliability.

Because no significant differences were detected on key study variables for the different sites, the data were aggregated to test proposed hypotheses. The findings indicated that nurses were moderately empowered, with opportunity receiving the highest score and access to resources the lowest. As well, respondents reported having moderate formal and informal power, and a moderate degree of control over nursing practice. With regard to satisfaction levels, most respondents reported being somewhat satisfied with their jobs overall, but gave much higher ratings to personal and organizational effectiveness. Strong positive associations were observed between job satisfaction and overall work empowerment, as well as the individual components of control over practice and formal/informal power structures. The only factor found to influence satisfaction levels was clinical area, with critical care nurses significantly more satisfied with their work than general medical/surgical nurses. During regression analysis, overall perceived empowerment and control over practice combined to explain 51.5% of the variance in job satisfaction.

Using a descriptive design and a sample (N = 275) of all workers (e.g., registered nurses, executives, nurse managers, licenced practical nurses, unlicensed personnel, etc.) employed by a regional health centre in the United States, Morrison et al. (1997) examined the influence of leadership style and empowerment on overall job satisfaction. The MLQ assessed transformational

leadership (i.e., idealized influence, inspiration, intellectual stimulation, and individualized consideration) and transactional leadership (i.e., management-by-exception and contingent reward). The Psychological Empowerment Instrument (Spreitzer, 1995) assessed aspects of empowerment (i.e., meaning, competence, self-determination, and impact), and Warr, Cook and Wall's (1979) questionnaire assessed job satisfaction. Good to high reliability scores were reported for all instruments. The findings indicated that all levels of staff were slightly satisfied, felt moderately empowered, and gave higher overall ratings to transformation leadership. Greater job satisfaction depicted moderate to strong correlations with higher levels of transformational leadership, and low to moderate correlations with higher levels of transactional leadership and greater feelings of empowerment. As well, greater feelings of empowerment depicted low correlations with higher levels of transformational leadership. During regression analysis, empowerment (21%) and transformational leadership (25%) accounted for 46% of the explained variance in overall job satisfaction for the licensed staff. Comparatively, empowerment (10%) and transformational leadership (40%) accounted for 50% of the explained variance in job satisfaction for the unlicensed staff. When transactional leadership was entered into the regression analysis, it only accounted for an additional 6% and 16% to the explained variance for the licensed and unlicensed staff, respectively.

In a descriptive correlational study, Brown et al. (1999) examined the

influence of job-related factors and personal characteristics on the job satisfaction of hospital workers (N = 654) prior to re-engineering initiatives at a large teaching hospital in Ontario. Data were collected with the same scales used in the Woodward et al. (1999) study. The findings revealed that all levels of workers (i.e., designated and non-designated supervisors, and staff) were moderately satisfied with their jobs and experienced moderate levels of stress. Greater job stress depicted low but significant correlations with lower levels of job satisfaction. During regression analysis, greater co-worker support or teamwork was the best predictor of greater satisfaction for all groups. As well, greater role clarity, decision latitude, and supervisor support were also predictive of greater job satisfaction for staff. Additional predictors of greater satisfaction for non-designated supervisors included increased decision latitude and lower job demands. Finally, younger age and less job influence were also predictive of greater job satisfaction for supervisors.

Kroposki et al. (1999) used a cross-sectional descriptive design to explore the relationships among role clarity, organizational commitment, and job satisfaction, in a sample of registered nurses (n = 409) and other health care providers (licensed practical nurses, paramedics, etc.) (n = 278) prior to hospital redesign. The Role Conflict and Role Ambiguity Questionnaire (Rizzo, House, & Lirtzman, 1970) evaluated role conflict and ambiguity, the OCQ measured dimensions of behavioural and attitudinal commitment, and the IWS assessed

job satisfaction. All instruments were reported to have good reliability and construct validity. No significant group differences were observed for job satisfaction. Greater job satisfaction depicted moderate to strong associations with less role conflict and role ambiguity, and greater organizational commitment. During regression analysis, role ambiguity, role conflict and organizational commitment combined to explain 56% of the variance in job satisfaction. Role conflict surfaced as the best predictor of job satisfaction.

Organizational level downsizing and re-engineering. Several studies were also identified that investigated the impact of job redesign on nurses' satisfaction levels during implementation of major re-engineering initiatives by different organizations (Johnston, 1997; McNeese-Smith, 1997, 1999; Pyne, 1998; Westrope et al., 1995). Given the multitude of job-related and work environment factors examined for their impact on job satisfaction, it was difficult to make cross-study comparisons.

Using data collected midway through implementation of a shared governance model, Westrope et al. (1995) examined the interrelationships among control over practice, decision saturation, task identity, job involvement, job satisfaction, and organizational commitment. The findings revealed that greater job satisfaction was moderately associated with greater control over practice and greater decision saturation. As well, most components of job satisfaction were significantly associated with most task identity components.

Specifically, greater perceived role importance and greater change in role importance depicted low to moderate correlations with higher levels of satisfaction with job interactions and enjoyment. As well, greater perceived role importance depicted low correlations with high levels of satisfaction with quality of nursing care. Significant low to moderate correlations were observed between greater job involvement and greater satisfaction with the quality of nursing care, job interactions, and job enjoyment, respectively.

In a cross-sectional descriptive study, Johnston (1997) described the status of nurses' job satisfaction (N = 231) in a large acute care hospital in the southwest United States three years post-implementation of a shared governance system and prior to movement to patient-focussed care. The IWS was used to measure the relative importance of and current satisfaction with six work-related factors (i.e., pay, autonomy, task requirements, organizational policies, interaction, and professional status). The reliability and validity of this scale has been established in previous research. The findings indicated that pay was the most valued component, followed by autonomy, professional status, interaction, task requirements, and organizational policies, respectively. In contrast, professional status was the most satisfying component, followed by autonomy, interaction, organizational policies, task requirements, and pay. When the importance and satisfaction ratings were integrated to form a composite score, the findings indicated that nurses were overall dissatisfied with

their workplace. The generalizability of the findings is limited because they are based on the experiences of nurses at one agency.

In a qualitative study, McNeese-Smith (1997) examined the perceived impact of manager behavior on the job satisfaction of registered nurses' (N = 30) working in a California-based university affiliated hospital during the implementation of managed care. Semi-structured interviews were conducted with nurses working on six nursing units (i.e., three with high job satisfaction and three with low satisfaction levels, but with consistent managers over time). Content analysis revealed several managerial behaviors that nurses perceived as influencing their job satisfaction: providing recognition, praise and thanks; meeting personal needs (e.g., scheduling, considering family needs, flexibility with illness); providing help and guidance; using leadership skills (e.g., visionary, growth-oriented, empowering, respectful, trusting, supporting autonomy); and, meeting unit needs and supporting the team (e.g., providing support, following up on issues, scheduling inservices, etc.). The key behaviors associated with job dissatisfaction were failing to provide recognition or support, not following through on issues, and criticizing staff in crisis situations (e.g., feeling overburdened and not receiving help or support from the manager, etc.).

Pyne (1998) also examined the influence of the impact of health care reforms and personal characteristics on the job satisfaction of nurses (N = 298) six months post-hospital redesign but prior to hospital closure and merger of

services. The impact variables depicted moderate to strong, positive correlations with job satisfaction. In terms of personal characteristics, older, longer position tenured, more experienced, and medical nurses were more satisfied with their jobs than younger, shorter position tenured, less experienced, and critical care nurses. During regression analysis four impact variables (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 researcher concluded that health care reforms appeared to be having a negative impact on job satisfaction.

In a subsequent article, McNeese-Smith (1999) reported on the sources of job satisfaction and dissatisfaction for the same sample of nurses (N = 30) participating in the McNeese-Smith (1997) study. Content analysis identified various sources of job satisfaction: patient care (e.g., experience providing care; recognition/praise from patients, families and the hospital; intrinsic rewards; etc.), environment (e.g., fast pace, task variety, emotional climate, etc.), balanced workloads, relations with coworkers, personal factors (e.g., work location, scheduling, family needs, etc.), salary and benefits, professionalism (e.g., learning, growth, independent thinking, etc.), cultural background, organizational policies (e.g., fairness, safety, etc.), and career stage. The factors most relevant for job satisfaction were patient care, the environment,

relations with co-workers, and meeting personal and family needs. The most meaningful factors for job dissatisfaction were patient care, interference with the job and patient care, feeling overloaded, relations with coworkers, family problems, organizational factors, and feelings of tiredness or burnout.

Besides the empirical findings on the perceived impact of system redesign and downsizing on registered nurses during the change process, there are also findings at different time periods post-implementation. Conflicting findings are reported in the literature on the impact of health care reforms on the work-related attitudes of staff nurses. The following review includes reports of study findings on job satisfaction levels before and after system changes (Hastings & Waltz, 1995; Woodward et al., 2000) and post-implementation only (Fletcher, 2001; Kangas, Kee, & McKee-Waddle, 1999; Shader, Broome, Broome, West, & Nash, 2001; Tovey & Adams, 1999).

Hastings and Waltz (1995) also investigated the best correlates and predictors of job satisfaction in a sample of staff nurses prior to (N = 707) and following (N = 863) implementation of a professional practice model. The findings indicated that greater general job satisfaction was strongly correlated with greater perceived control/responsibility and praise/recognition. As well, a higher level of general job satisfaction was moderately correlated with greater perceived ability to deliver high quality care, greater perceived adequacy of nurse-patient ratios, greater perceived peer support, greater satisfaction with

scheduling, and more positive perceptions of unit level management. None of the personal characteristic variables (i.e., age, organizational tenure, and educational level) were found to significantly influence job satisfaction. During regression analysis, satisfaction with control/responsibility, rewards/recognition, nurse-patient ratio, scheduling, peer and managerial support, and ability to give high quality of care combined to explain 60% of the variance in general job satisfaction.

Using a descriptive, correlational design and random sampling techniques, Kangas et al. (1999) examined the effects of organizational structure (i.e., traditional versus shared-governance), nursing care delivery models (i.e., team, case management, and primary) and organizational culture on the job satisfaction of nurses (N = 92) working in three hospitals in Atlanta. Job satisfaction was measured with the Nurse Job Satisfaction Scale and the Organizational Cultural Index (Wallach, 1983) assessed culture along three dimensions (i.e., bureaucratic, innovative, and supportive). Both instruments were reported to have good reliability and validity. The findings revealed few differences between the hospitals in terms of the proportion of bureaucratic, innovative and supportive subcultures present. In addition, the job satisfaction of nurses was not significantly affected by type of organizational structure or care delivery model. It was noted, however, that nurses working under primary nursing had slightly higher levels of job satisfaction than their counterparts

working under different delivery models. During regression analysis, working on a critical care unit and perceiving the unit as having a supportive work culture combined to explain 55% of the variance in job satisfaction. While supportive work culture was the dominant predictive variable (i.e., twice as important as unit type), organizational structure, care delivery model and other culture types failed to enter the regression model.

Woodward et al. (2000) also investigated the best predictors of job satisfaction for the staff (N = 380) of a large Canadian teaching hospital following major restructuring initiatives. The findings indicated that the best predictor of job satisfaction was previous levels of job satisfaction for all groups. Additional predictors of higher job satisfaction levels for the staff included less formal education; greater supervisor support, role clarity and family responsibilities at baseline; and increasing supervisor support, role clarity, teamwork and job influence over time. For the supervisory groups, increased teamwork and decision-making over time surfaced as significant predictors of greater job satisfaction for non-designated supervisors, whereas only increased teamwork was predictive of greater job satisfaction for supervisors.

Using the qualitative comments of a random sample of nurses participating in a larger national study, Tovey and Adams (1999) examined the key sources of job satisfaction and dissatisfaction on acute care hospital wards in England. Content analysis was used to analyze comments from nursing ward

leaders (n = 20) and staff nurses (n = 110). The sources of job satisfaction and dissatisfaction were grouped into six major categories (i.e., job content, resource issues, professional concerns, professional working relations, emotional reactions to nursing, and external pressures). The most frequently cited sources of dissatisfaction included relations with management, staff availability, standards of care, personal support, organizational changes, and job security. Although ward leaders experienced significantly more role conflict and additional role pressure than staff nurses, they derived significantly more satisfaction from team work than staff nurses.

Using a cross-sectional survey design, Shader et al. (2001) examined the relationship among key work-related factors (i.e., group cohesion and job stress), anticipated turnover, and work satisfaction in a sample of registered nurses (N = 241) working in a university hospital in the southeastern United States. Group cohesion and job stress were measured with the Byrne Group Cohesion Scale and the modified Job Stress Scale, respectively. Work satisfaction were assessed with the IWS scale, and intent to leave with the Anticipated Turnover Scale (Hinshaw & Atwood, 1985) . Study instruments were reported to have strong internal consistency. The findings indicated that respondents had moderate levels of job stress, rated group cohesion as slight to moderate, were slightly dissatisfied with their work, and were slightly inclined to leave. In addition, higher levels of job satisfaction were significantly and

moderately correlated with less job stress, higher group cohesion, more stable scheduling, and lower anticipated turnover.

Fletcher (2001) investigated factors influencing the job satisfaction of registered nurses (N = 1,780) working in ten hospitals in southern Michigan. The job satisfaction subscale of the Job Diagnostic Survey assessed five job aspects (i.e., pay, job security, social and supervisory support, and growth opportunities). The Immediate Supervisor Scale assessed the perceived reliability, competency and helpfulness of supervisors, and the Health Professions Stress Inventory Scale measured levels and sources of stress. An open-ended question requested general comments. The findings indicated that most respondents found their jobs somewhat stressful but slightly satisfying, with supervisor support and supervision quality receiving the lowest ratings. Qualitative analysis of written comments identified the negative influence of key factors on satisfaction levels: distrust of management following system changes; priority given to profits over quality patient care; poor work attitudes and performance of co-workers (e.g., low work ethic, lack of professionalism, errors, etc.); quality of patient care concerns (e.g, limited time for basic physical and emotional care, safety issues, etc.), increased use of unlicenced assistive personnel, and decreased employment benefits (e.g., pay, promotion opportunities, vacation access, sick leave/healthcare benefits, etc.). Most respondents also gave marginal ratings to immediate supervisors reliability,

competence, and helpfulness. The thematic categories derived from the qualitative data related to low quality leadership (e.g., inadequate support, low fairness, non-nursing preparation, etc.), insufficient physical presence in the clinical area, and inadequate attention to resolving clinical problems and staffing issues.

Summary. The research findings from studies conducted following the meta-analytic studies by Blegen (1993) and Irvine and Evans (1995) are fairly consistent on the direction and strength of key job-related and work-environment factors (i.e., stress, autonomy, role conflict, task requirements, salary and benefits, workload, co-worker and supervisor support, etc.) on nurses' job satisfaction levels. Although satisfaction levels varied somewhat depending on the institution and the type and stage of reforms, the key influencing variables remained consistent throughout the reform process (i.e., before, during, and after). Consistent with the meta-analytic findings, personal characteristics had minimal to no influence on job satisfaction levels.

Organizational Commitment and Intent to Stay

Organizational commitment has been defined as an individual's identification with and involvement in a specific organization (Mowday et al., 1979). Commitment is viewed as a unidimensional construct shaped by interactions between employee attitudes and behaviours. Mowday et al. (1979)

highlighted three significant aspects of this construct: an individual's acceptance of organizational goals, a willingness to exert considerable effort toward achieving organizational success (attitudinal), and a strong intent to remain with the organization (behavioral) .

Other authors have argued that organizational commitment and behavioral intentions are conceptually and empirically distinct entities (Curry et al., 1985; Mobley ,1982; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). Commitment is defined as the extent of an employee's loyalty to the organization (attitudinal), whereas intent to leave is seen as an employee's intention of leaving the organization in the near future (behavioral) (Curry et al.; Mueller & Price; Parasuraman; Price & Mueller). These authors also argued that organizational commitment has a strong, direct effect on behavioral intentions.

More recently, Meyer and Allen (1997) defined organizational commitment as a multifaceted psychological state linking employees to their workplace. Commitment is conceptualized as consisting of three interrelated but separate components: affective, continuance, and normative. Affective commitment is described as an emotional attachment to and identification with an organization. While continuance commitment is the outcome of a cost-benefit analysis of leaving (i.e., employees elect to stay with current employers because the costs of leaving are too high), normative commitment reflects an employee's moral obligation or duty to remain with an organization. The authors argued that each

commitment component exerts a significantly different effect on work-related behaviours. Employees with strong affective and normative commitment are predicted to evidence positive work behaviours (i.e., job performance, attendance, and organizational citizenship). In contrast, employees with strong continuance commitment are predicted to demonstrate inappropriate work behaviours (e.g., minimal job performance, high absenteeism, etc.).

Meyer, Allen, and Topolnytsky (1998) discussed the potential variant effects of health care system changes on the different forms of commitment. While job enrichment may enhance affective commitment, increased role conflict or ambiguity and overburdened feelings may decrease it. Job insecurity may strengthen continuance commitment, whereas employment opportunities elsewhere may decrease it. Organizational change may increase normative commitment for employees who have received extra training associated with redesign or those experiencing survivor guilt following downsizing. As well, organizational change may alter the nature of psychological contracts with negative implications for commitment (i.e., alterations in relational contracts will more likely impact affective commitment, while transactional contract changes are more likely to impact continuance and normative commitment).

There is a growing research base on the effects of job-related and work environment factors on the organizational commitment and behavioral intentions of nurses working in acute care settings. There is also empirical support for the

strong influence of employee attitudes (e.g., job and work satisfaction, motivation, etc.) on commitment and intentions, as well as the strong direct effect of commitment on intent to stay. The following review is organized according to studies dealing with either commitment or intent to leave/stay.

Organizational commitment. A few studies were identified that highlighted key factors associated with organizational commitment. In a meta-analytic study, Mathieu and Zajac (1990) investigated the impact of antecedents (i.e., determinants and personal characteristics) and correlates (i.e., motivation, job satisfaction, job involvement, stress, and occupational and union commitment) on organizational commitment. These authors also examined the consequences (i.e., job performance, perceived job alternatives, intent to leave, attendance, lateness, and turnover) of organizational commitment. Additional articles were identified that either reported on findings from a meta-analysis of nursing studies (Blegen, 1993) or a critical review of studies conducted with acute care nurses and other health care providers (Corser, 1998).

Mathieu and Zajac (1990) examined the antecedents of organizational commitment in 174 independent samples from 124 research studies. The meta-analysis was restricted to studies reporting correlational data and measuring commitment at the individual level. The antecedents of commitment included job and organizational characteristics (i.e., skill variety, task autonomy, challenge, job scope, and organizational size and centralization), group/leader relations

(i.e., cohesiveness, task interdependence, leader consideration and communication, and participative leadership), role states (i.e., role ambiguity, conflict, and overload), and personal characteristics. The results revealed moderate to strong positive correlations between most job characteristics and commitment. The only exception was the low association between higher commitment and greater task autonomy. Organizational size did not significantly impact commitment, and centralization was limited to a very small, negative effect. With regard to the group-leader relations variables, most depicted low to moderate, positive correlations with commitment. The only exception was the strong correlation observed between more effective leader communication and greater commitment. All of the role state variables demonstrated moderate, negative correlations with commitment. Personal characteristics (i.e., position and organizational tenure, marital status, ability, salary, and job level) exerted a small, positive effect on commitment, with the exception of gender and education (i.e., males and those with higher education, less committed). In contrast, age, Protestant work ethic, and perceived personal competency had a moderate to high positive affect on commitment.

A number of attitudinal variables have also been found to demonstrate significant correlations with organizational commitment. Mathieu and Zajac (1990) found that several work-related attitudes depicted moderate (i.e., union commitment) to strong (i.e., occupational commitment, job involvement,

motivation, and job satisfaction) positive correlations with organizational commitment. In contrast, greater stress demonstrated a moderate correlation with lower levels of organizational commitment.

In a meta-analysis of nursing studies, Blegen (1993) found that higher levels of job satisfaction depicted strong correlations with greater organizational commitment. In a study of acute care nurses' experience with a professional practice model, Hasting and Waltz (1995) also reported that higher levels of general job satisfaction was strongly correlated with greater organizational commitment. Following a review of research studies with nurses and other providers, Corser (1998) noted that greater organizational commitment was consistently and significantly associated with greater job satisfaction. Research findings from studies testing the major assumptions of nursing turnover models provide additional support for the strong association between job satisfaction and organizational commitment (e.g., Mowday, Porter, & Steers, 1982; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). As well, research findings by Turnley and Feldman (1998, 1999) supported the negative impact of psychological contract violation on managers' loyalty and commitment to their organizations.

There were also some studies that dealt with the consequences or outcomes of organizational commitment. Mathieu and Zajac (1990) found that greater job performance and higher attendance levels demonstrated a low

positive correlation with organizational commitment. Conversely, greater job alternatives, greater tendency toward lateness, and higher turnover rates depicted low to moderate correlations with commitment. These authors also found that greater intentions to search and/or leave were strongly correlated with commitment.

Several research studies were identified from the literature review that tested causal models of nursing turnover behavior. Study findings supported the strong effects of commitment on behavioral intentions and anticipated turnover (e.g., Meyer & Allen, 1997; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). Conversely, conflicting study findings have been reported on the relationship between commitment and actual turnover behavior (e.g., Mueller & Price; Parasuraman; Price & Mueller).

A few relatively recent studies that examined the effects of select job-related and work environment factors on the organizational commitment of acute care nurses were identified from the nursing literature (Ingersoll et al., 2000; Kroposki et al., 1999; Laschinger et al., 2000; McDermott, Laschinger, & Shamian, 1996; McNeese-Smith, 1997; Westrope et al., 1995). All of these studies were conducted during or following organizational changes.

Westrope et al. (1995) also found support for the influence of select job-related factors on the organizational commitment of nurses working in a major tertiary care hospital. The findings indicated that greater perceived control over

practice and greater decision saturation were moderately associated with greater organizational commitment. As well, greater perceived role importance, greater perceived change in role importance by others over time, and greater job involvement was strongly associated with greater commitment. Finally, higher levels of satisfaction with the quality of nursing care, interactions, and enjoyment depicted low to moderate correlations with greater organizational commitment.

In a descriptive correlational design study of staff nurses (N = 112) working in an acute care teaching hospital in Ontario, McDermott et al. (1996) used Kanter's theory to explore the relationship between perceived job-related empowerment and organizational commitment. The CWEQ assessed job-related empowerment (i.e., access to resources, support, information and opportunity), the OCQ assessed organizational commitment, and the Organizational Description Questionnaire (OCD) (Laschinger, 1996) assessed perceptions of managers' power and the structural power characteristics in the organization. The findings indicated that greater overall job empowerment, as well as all of the component parts of empowerment, depicted moderate to strong correlations with greater organizational commitment and greater perceived managerial power. Finally, low but significant correlations were observed between perceived managerial power and organizational commitment.

McNeese-Smith (1997) examined the perceived influence of managerial behavior on the organizational commitment of staff nurses' (N = 30) during

implementation of managed care in a university affiliated hospital. Content analysis of the interview transcripts revealed several managerial behaviors (e.g., visionary, positive influence, open communication, role model, education focus, supportive, etc.) that were perceived to exert a positive influence on levels of organizational commitment. In contrast, lack of organizational commitment was attributed primarily to feeling unappreciated and unsupported by managers. Other factors contributing to lack of commitment were unresolved unit issues, poor communication, and a general distrust of managerial personnel.

Kroposki et al. (1999) investigated the influence of role conflict and role ambiguity on the organizational commitment of RNs (n = 409) and non-RNs (n = 278) during hospital re-engineering. The findings indicated that greater role conflict and role ambiguity were moderately associated with less organizational commitment. As well, registered nurses reported significantly lower levels of organizational commitment than other providers. Finally, nurses' commitment levels did not vary by clinical area (i.e., medical-surgical versus specialty units).

Using a longitudinal, prospective study design, Ingersoll et al. (2000) examined the relationships among organizational culture, commitment, and readiness in a convenience sample of staff (n = 535) and managers (n = 120) working in two tertiary care hospitals during implementation of a patient-focussed delivery system. Most of the sample worked in the nursing department (80.3%). The Organizational Culture Inventory (Cooke & Rousseau, 1988)

assessed organizational culture along three domains (i.e., constructive, passive/defensive, and aggressive/ defensive). Organizational commitment and readiness were measured with the Commitment/Energy and the Innovativeness and Cooperation subscales, respectively, of the Pasmore Sociotechnical Systems Assessment Survey (Pasmore, 1988) . Study scales were reported to have strong internal inconsistencies. The findings indicated that constructive climates were moderately correlated with increased organizational commitment, whereas passive/defensive and aggressive/ defensive climates were moderately associated with lower organizational commitment. Furthermore, greater organizational readiness for change was moderately correlated with greater organizational commitment. During regression analysis, organizational readiness emerged as the best predictor of commitment, followed by constructive culture. Passive/defensive culture was also a significant predictor. The authors concluded that management personnel should spend more time creating empowering environments which may increase staff's organizational commitment.

Laschinger et al. (2000) examined the effects of workplace empowerment (i.e., formal and informal power, and access to empowerment structures) and organizational trust on affective commitment in a random sample of registered nurses (N = 412) following major downsizing/restructuring of tertiary care hospitals. The findings indicated that greater trust in management was strongly

associated with higher affective commitment. Furthermore, perceived access to greater empowering structures depicted a moderate association with affective commitment. During path analysis, empowerment was found to have a direct positive effect, as well as an indirect effect through organizational trust, on affective commitment. Significantly, greater empowerment and greater organizational trust combined to explain 28% of the variance in affective commitment.

Intent to stay/leave. The research base on the effects of determinants and work-related attitudes (e.g., job satisfaction, organizational commitment, psychological contract violation, etc.) on intent to leave/stay is less extensive than for job satisfaction and organizational commitment. There is conflicting evidence on the magnitude and significance of select determinants (i.e., job-related and work-environment factors), as well as the mediating role of job satisfaction and organizational commitment, on intent to stay. The findings from studies designed to test causal models of nursing turnover support the positive (i.e., external job opportunities and degree of integration or work group cohesion) and negative (i.e., instrumental communication or formal transmission of job information, individual pay, and kinship responsibility) influence of determinants on intent to leave.

Cavanagh and Coffin (1992) investigated key predictors of intent to stay in a convenience sample of registered nurses (N = 221) employed in hospitals in

the western United States. A researcher-developed questionnaire, based on the work of Price & Mueller (1981), was used to assess key study variables (i.e., perceived and actual external job opportunities, kinship responsibilities, participation, education, pay, promotion, routinization, instrumental communication, job satisfaction, and intent to stay). Satisfactory internal consistency and validity were reported. The findings indicated that greater job satisfaction depicted a moderate to strong association with intent to stay. During path analysis, higher levels of overall job satisfaction, greater kinship responsibilities, greater satisfaction with pay, and less external job opportunities emerged as significant predictors of a greater likelihood of staying with current employers. The findings confirmed that general job satisfaction exerts a stronger influence on intent to stay than job-related and work environment factors.

Lucas et al. (1993) investigated the best predictors of anticipated and actual turnover in a sample of urban-based hospital nurses (N = 385). The Anticipated Turnover Scale was used to measure intent to leave, and the number of days from data collection to termination represented actual turnover. During regression analysis, lower levels of organizational and professional job satisfaction, less group cohesion, less education, and younger age combined to exert a direct effect on anticipated turnover, accounting for 32% of the explained variance. The effects of other variables (i.e., job stress, medical surgical clinical

area, and years of experience) were indirect in the regression model. With regard to actual turnover, stated intentions about leaving accounted for 29% of the explained variance. During stepwise discriminant analysis, it was possible to accurately predict 73.2% of stayers (i.e., 76.2%) and leavers (i.e., 66.9%).

Fisher, Hinson, and Deets (1994) investigated the impact of professional autonomy, managerial environment, willingness to risk, and exit/voice on the intent to stay of acute care nurses' (N = 524) in eight hospitals in the midwestern United States. The Managerial Environment Scale (Tomey, Bakas, & Deets, 1990) was used to assess perceptions of supervisors' communication and management styles. A modified version of the Exit/Voice Scale (Graham, 1982) assessed the degree to which hypothetical situations would generate either an exit (i.e., leave the organization) or voice (i.e., initiate actions to bring about change) response. The Autonomy Scale (Velianoff, 1986) measured control over practice, and the Willingness to Risk Scale (Graham, 1982) evaluated willingness to take risks to improve practice. A researcher-developed Risk Scale evaluated the willingness to take risk with each exit/voice situation. A researcher-designed Intent to Stay scale assessed the potential of staying with the organization for the next 3 years. Study instruments were reported to have strong internal consistency. The findings revealed low, positive correlations among study variables (i.e., higher willingness to assume risks for exit/voice situations, higher willingness to take risks to improve practice, greater

autonomous decision-making, more positive managerial environment, and greater tendency to use voice behaviors). With regard to the effects of personal characteristics on behavioral intentions, nurses with greater position, unit, and organizational tenure were more inclined to stay with their current organizations. During regression analysis, exit/voice behaviors and managerial environment combined to explain 27% of the variance in intent to stay.

In a descriptive, correlational study, Somers (1995) explored the effects of affective, continuance, and normative commitment on intent to stay in a sample of registered nurses (N = 422) working in an urban hospital in the northeastern United States. Affective, continuance, and normative commitment were measured using Allen and Meyer's (1990) eight-item scale, and intent to stay was evaluated with Bluedorn's (1982) scale. High levels of internal consistency were reported for both scales. During regression analysis, affective and normative commitment surfaced as the best predictors of intent to stay, accounting for 22% of the explained variance.

In a study of staff nurses working in acute care institutions pre- and post-implementation of a professional practice model, Hastings and Waltz (1995) also investigated the predictive ability of select aspects of the job and work environment for intent to leave. During regression analysis, satisfaction with control/responsibility, praise/recognition, scheduling, and ability to give high quality care combined to explain 35% of the variance in intent to leave.

Lum, Kervin, Clark, Reid, and Sirola (1998) investigated the influence of general job and pay satisfaction and organizational commitment on the turnover intentions of pediatric staff nurses (N = 466) eligible for tenure-based pay policies (i.e., 5% salary differential for everyone plus an additional bonus for critical care nurses) in a metropolitan teaching hospital in Ontario. The modified Job Satisfaction Scale measured satisfaction with aspects of the job (i.e., autonomy, task responsibilities, organizational policies, professional interactions, and perceived job status). A researcher-developed scale assessed pay satisfaction, and a modified version of the OCQ assessed desirability of the workplace. A researcher-developed index, Intentions Toward Turnover, was used to measure intentions to leave the organization. All scales had strong internal consistency. Greater pay satisfaction, greater overall job satisfaction, and greater organizational commitment depicted low to moderate correlations with less likelihood of leaving. During path analysis, organizational commitment emerged as the strongest predictor of turnover intent. While commitment directly influenced turnover intent, the effects of job satisfaction were only indirect through commitment. Pay satisfaction had both direct effects, as well as indirect effects through job satisfaction and commitment, on turnover intent. As well, respondents who had young children at home or worked 12-hour shifts were more likely to be dissatisfied with their pay but less inclined to leave. While respondents who had a bachelors degree were more likely to be

satisfied with their pay, they were also more likely to intend to leave. Finally, respondents with more years of nursing experience were more likely to be satisfied with their pay.

Boyle, Bott, Hansen, Woods, and Taunton (1999) examined the impact of nurse managers' power, influence and leadership style on intent to stay in a sample of critical care nurses (N = 255) working in four acute care hospitals in the United States. Standardized instruments were used to measure managers' power (i.e., position power and personal power), influence (i.e., control over coordination of work and personnel resources) and leadership style (i.e., structuring expectations of staff and degree of consideration for staff). As well, standardized instruments assessed organizational characteristics (i.e., distributive justice, promotional opportunity, and control over nursing practice), nurse characteristics (i.e, availability of nursing jobs external to the organization), work characteristics (i.e., autonomy, instrumental communication, work group cohesion and routinization), intervening variables (i.e., personal and situational stress, job satisfaction, satisfaction with nursing administration style, and organizational commitment), and intent to remain with the organization. The findings indicated that most respondents perceived that their managers had moderate position and high personal power, had moderate influence over work coordination and personnel resources (i.e., hiring, firing, and promoting of staff), and positive leadership styles. Most respondents did not believe that

promotional opportunities existed in their organization, felt that it would be easy to find a comparable job locally, were highly satisfied with their jobs, and were moderating inclined to stay with current employers. As well, greater promotional opportunity, greater control over practice, and more equitable distributive justice depicted low correlations with greater perceived managerial personal power and influence over personnel resources, and more positive managerial leadership style. During path analysis, exogenous variables (i.e., distributive justice, promotional opportunity, and control over practice), manager characteristics, and job satisfaction combined to explain 45% of the variance in intent to stay. Several variables exerted a direct effect on intent to stay (i.e, greater job satisfaction, reduced availability of external job opportunities, greater opportunities for promotion, greater perceived managerial personal power and influence over work coordination). While job satisfaction had the greatest influence on intent to stay, control over practice and situational job stress had the greatest indirect effects. Intent to stay was also indirectly affected by leadership style through select work characteristics (i.e., autonomy, instrumental communication, and work group cohesion) and intervening variables (i.e., personal stress, situational stress, and job satisfaction). Finally, respondents who expected to stay for five years upon initial employment were significantly more inclined to stay than those expecting to stay for less than two years.

Laschinger et al. (2000) also investigated the effects of organizational

trust and empowerment on the continuance commitment of acute care registered nurses (N = 412). The findings indicated that greater trust in management had a low negative association with continuance commitment. As well, perceived access to greater empowering structures had a low negative association with continuance commitment. Only trust in management was found to exert a small, direct negative effect on continuance commitment (i.e., 4% of the explained variance). Empowerment only influenced continuance commitment indirectly through organizational trust.

Shader et al. (2001) also investigated the best predictors of anticipated turnover in a sample of registered nurses (N = 241). Actual turnover was assessed in terms of the ratio between the number of resignations/terminations to total staff over a one year period. The findings indicated that higher anticipated turnover depicted low to moderate correlations with greater job stress, more stable scheduling, actual turnover, lower levels of work satisfaction, and decreased levels of group cohesion. During regression analysis, job stress, group cohesion, work satisfaction, and weekend overtime accounted for 31% of the explained variance in anticipated turnover. Additional regression equations were generated for different age groupings. While work satisfaction was a constant predictor for most age ranges (i.e., exception ≥51 years), job stress also emerged as a significant predictor for the 20 to 30 age group and group cohesion for the 40 to 51 age group.

Summary. There is empirical support for the stronger influence of job-related and work environment factors on organizational commitment than individual/personal characteristics in the nursing research literature. As well, job satisfaction has been found to have a consistently, positive relationship with commitment and intent to stay. Although the number of research studies exploring the antecedents and consequences of organizational commitment of acute care nurses is growing, greater understanding of the factors influencing nurses' organizational commitment and behavioral intentions is still needed.

Summary

Job satisfaction is the most studied attitudinal variable in causal models of nursing turnover. The research literature examining the relationships among job-related and work environment factors, the attitudinal variables of job satisfaction and organizational commitment, and behavioral intentions has shown that these variable groupings are consistently related to one another. Nevertheless, there is less empirical support for the predictive effects of job-related and work environment factors on employee attitudes. This is especially true for the predictive effects of attitudes on intentions of remaining with current employers. Importantly, there are not only discrepancies concerning the relative contribution of attitudinal variables to turnover intent but also neither job satisfaction, organizational commitment, nor psychological contract violation

account for a significant amount of the explained variance. These observations across studies suggest the need for further inquiry using similar and different variables.

Discussion

In light of the current and proposed nursing shortage, organizations are demonstrating a renewed interest in the factors influencing nurse attitudes and retention. As demonstrated by the literature review, there is a growing research base on the impact of health care reforms on employees' job satisfaction, organizational commitment, and intent to stay. However, there is a dearth of information describing the impact of reforms on employees' psychological contracts. A better understanding of the effects of reforms on the practice of registered nurses working in the hospital sector is obviously needed.

Regionalization of health services and multi-hospital mergers have created administrative and governance structures that reflect both centralization (i.e., reduced number of local boards) and de-centralization (i.e., devolution of power from governments) of authority and responsibility. Although evaluative studies are quite limited, the findings suggest that the necessary mechanisms are not in place to help buffer the negative impact on employee groups, or to promote the co-ordination, integration, local responsiveness, and cost-effectiveness of services. When viewed from the instititional or corporate level,

major downsizing, redesign, and restructuring initiatives have not significantly moderated the impact of change on either inefficiencies, service quality, or employee attitudes. Research findings suggest that such initiatives have had variant effects (i.e., positive and negative) on acute care staff nurses' attitudes and perceived ability to provide quality care and meet professional care standards from early to much later in the change process. This is especially true for the re-design initiatives of patient-centered care and professional practice models, despite their documented benefits prior to restructuring of the health care system.

Considerable efforts have been expended in developing and testing causal models to enhance our understanding of key determinants and work-related attitudes in the turnover process. While cross-sectional studies have consistently demonstrated moderate to strong associations between employee attitudes and job-related and work environment factors, the findings have been rather inconsistent on the predictive effects of determinants on attitudes and turnover intentions or behaviors. Important discrepancies were also observed in the relative strength and magnitude of the predictive and moderator effects of intervening attitudes, especially job satisfaction and organizational commitment, in the turnover process. It is conjectured that the complex interaction of organizational structural characteristics, contextual factors, and personal characteristics is partially responsible for the observed discrepancies. There are

also some indications that extensive restructuring of the health care system may have changed the role of commitment and increased the importance of psychological contract violation in the turnover process. The discrepancies in results across studies reinforce the need for further examination of the separate and interactive effects of determinants and employee attitudes on turnover behaviour, especially within the context of anticipated nursing shortages.

Conceptual Framework

Several causal models have been proposed to explain the influence of various factors on nursing turnover (e.g., Alexander et al., 1998; Curry et al., 1985; Irvine & Evans, 1995; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1981, 1986; Weisman, Alexander, & Chase, 1981). Although the models vary, particularly in terms of specific factors hypothesized to predict turnover, most depict a multidimensional, linear process incorporating determinants (e.g., job-related and work environment, etc.), intervening attitudes (job satisfaction, organizational commitment, etc.), behavioural intentions (e.g., intent to stay/leave, etc.), and correlates (i.e., personal characteristics or attributes). The underlying assumption of these models is that determinants exert separate and interactive effects on intervening attitudes, which also influence each other and actual turnover in a separate and interactive manner.

Price and Mueller's (1981, 1986) causal model has been widely used to

explain nursing turnover. Using theory and empirical data based on the original causal model, Mueller and Price (1990) proposed the revised integrated causal model which incorporates economic, psychological, and sociological factors as determinants of nurse turnover behaviour. This revised model encompassed three variable groupings: causal, intervening, and outcome. Causal variables or determinants consist of the structural characteristics of the workplace (i.e., pay, routinization, autonomy, feedback, work group cohesion, work load, and task identity), employee attributes (ie., general training, work motivation, professionalism, leaving plans, publicity-friends, volition-range, volition-external, explicitness), and environmental constraints (ie., perceived job opportunity, kinship responsibility, and community participation). Intervening variables are comprised of satisfaction (i.e., level of contentment), commitment (i.e., loyalty), and intent to stay (i.e. likelihood of staying). The outcome variable is turnover or voluntarily leaving the organization.

According to the revised integrated causal model, the causal variables exert a separate and interactive effect on each intervening variable. The intervening variables mediate the relationship between the determinants and actual turnover. As well, the intervening variables have a sequentially more powerful effect on each other (i.e., job satisfaction exerting a greater affect on commitment, and commitment exerting a greater affect on intent to stay). Although most personal characteristics have not been incorporated into the

model, the authors recognize their significance for the turnover process.

The covariate attitude of psychological contract violation has only recently been reintroduced in the business literature as an important component of organizational structure, function, and outcome. Turnley and Feldman (1998, 1999) have proposed that major corporate reform may enhance employee perceptions of violations of psychological contracts. As well, there is some evidence that violations of implied contracts may negatively impact job satisfaction, organizational commitment, and intent to stay. Turnley and Feldman's integrated causal model views psychological contract violation as resulting from alterations in job-related and work environment factors. This model depicts linear relationships among contract violations, situational factors (i.e., availability of attractive employment alternatives; procedural justice during layoffs, pay raises, and promotion decisions; likelihood of future violations; quality of relationships with supervisors; and quality of relationships with colleagues), and consequences of perceived violations (i.e., exit, voice, loyalty, and neglect). The intensity and consequences of contract violations are believed to be moderated by situational factors and personal characteristics.

Mueller and Price's (1990) integrated causal model of turnover and Turnley and Feldman's (1998, 1999) model on the determinants and consequences of psychological contract violation provided the framework for this study (see Figure 1). The CMBI represents the hypothesized relationships

among correlates, determinants, covariates or intermediate outcomes, and behavioral intentions. The determinants exert a separate and interactive effect on intermediate outcomes and behavioural intentions. Each intermediate outcome directly affects the other, and exerts an indirect effect on other intervening outcomes through each successive outcome. In addition, each intermediate outcome exerts a separate and interactive effect on behavioural intentions. Finally, correlates (i.e., personal characteristics and staffing issues) influence behavioural intentions directly and indirectly through determinants and intermediate outcomes.

Definitions

The following section presents the definitions used for the major constructs included in the CMBI.

Determinants. The determinants examined in this current study were restricted to overall perceptions of the importance of health care reforms. In particular, the determinants included perceptions of the importance of reforms and the impact of reforms on job-related and work environment factors (i.e., emotional climate of the workplace, practice-related issues, quality of care concerns, safety concerns, and standards of care concerns) (Way, 1995).

Correlates. The correlates (i.e., personal characteristics and staffing issues) examined in this current study consisted of specific extraneous variables

which may have contributed to any variations in acute care nurses' perceptions of the impact of health care reform, work-related attitudes, and behavioural intentions. The personal characteristics were comprised of age, gender, education, region of employment, area of responsibility, current position, years of experience, current position tenure, and employment status. Staffing issues consisted of census/capacity, absenteeism, and several staffing adequacy variables. Many of these correlates have been examined in previous research on work-related attitudes and behavioural intentions (e.g., Blegen, 1993; Brown et al., 1999; Irvine & Evans, 1995; Mathieu & Zajac, 1990; Mowday et al., 1982; Mueller & Price, 1990; Price & Mueller, 1981, 1986; Turnley & Feldman, 1999; Woodward et al., 2000).

Intermediate outcomes. The definitions for the intermediate outcomes explored in this study are based on the theory and research of various authors. Psychological contracts pertain to an individual's beliefs about the terms and conditions of reciprocal agreements between employees and employing agencies (Morrison & Robinson, 1997; Robinson & Rousseau, 1994; Rousseau, 1990). Basically, employees' perceive certain obligations to employers (e.g., hard work, loyalty, etc.) in return for specific considerations (e.g., fair pay, job security, promotion, etc.) from employers. Psychological contract violation occurs when employees perceive that employers have not fulfilled obligations (Morrison & Robinson; Robinson et al.; Robinson & Rousseau).

In the current study, satisfaction with restructuring was limited to perceptions of managerial support and interdisciplinary relations (Way, 1999). Supervisory relations has been included in several job satisfaction instruments (e.g., MMSS, JSS, WES, etc.) as a key aspect of job satisfaction. Previous researchers have reported moderate to strong associations between managerial relations and overall job satisfaction (Blegan, 1993; Irvine & Evans, 1995; Woodward et al., 2000).

The current study used Price and Mueller's (1986) definition of job satisfaction. Job satisfaction is defined from a global perspective in terms of individuals' overall affective responses to the job.

Mowday et al. (1979) define organizational commitment as an individual's identification with and involvement in a specific organization. Commitment is viewed as a unidimensional construct shaped by an interactional process between employee attitudes and behaviours. Commitment is defined as an individual's acceptance of organizational goals, a willingness to exert considerable effort toward achieving organizational success (attitudinal), and a strong intent to remain with the organization (behavioral).

Behavioral intentions. In the current study, behavioral intentions were measured in terms of individuals' likelihood of staying with current employers. Turnley and Feldman's (1999) definition of exit behaviors (i.e., intention to quit and actual job search behaviors) was used to investigate behavioral intentions.

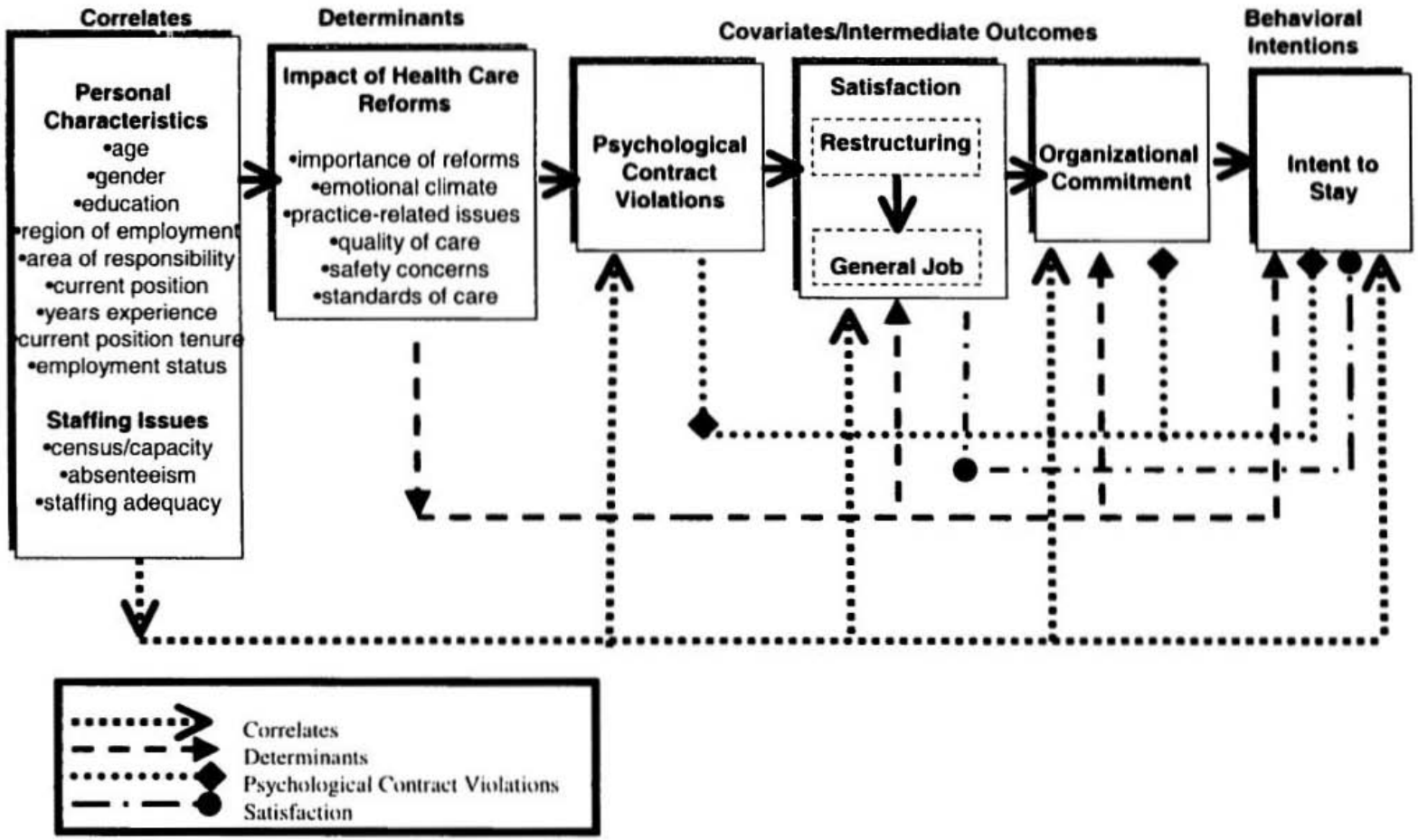

Figure 1: Conceptual Model of Behavioral Intentions

Source: Way, C., Gregory, D.M., Barrett, B., & Parfrey, P.S. (1999). Conceptual Model of Behavioral Intentions. St. John's: Memorial University of Newfoundland, Faculty of Medicine.

CHAPTER 3

Methodology

A descriptive correlational design was used to investigate the impact of health care reforms on registered nurses employed in acute care organizations within the province of Newfoundland and Labrador. The interrelationships among the key study variables (i.e., personal characteristics, perceived impact of health care reforms, psychological contract violation, job satisfaction, organizational commitment, and intent to stay) were also examined. This chapter provides an overview of the sample, instruments, procedure, ethical considerations, data analysis, and study limitations.

Population and Sample

The target population was all registered nurses (RNs) currently working in staff positions in acute care settings in the province of Newfoundland and Labrador. The accessible population was restricted to acute care nurses who met the following inclusion criteria: (1) name recorded on an updated mailing list of the Association of Registered Nurses of Newfoundland and Labrador (ARNNL), (2) consented to participate in nursing research on the annual registration renewal form, and (3) were currently working in staff positions in one of the seven geographic areas of the province (i.e., St. John's, Avalon, Peninsulas, Central East and West, Western, Northern, and Labrador).

The total size of the target population was 3,793. Following application of the inclusion criteria, the accessible population was reduced to 3,583. A proportionate stratified random sample was selected from the accessible population. The strata was based on geographic region, and a weighting factor used to ensure that the number of subjects selected was proportional to the size of each stratum in the accessible population. Based on these calculations, a sample size of 327 was required to generalize study findings to the target population with 95% confidence. Given the low response rate to mailed out surveys, the decision was made to double this number. A total of 223 acute care staff nurses returned the questionnaires, resulting in a 34.1% response rate.

The final sample size of 223 was within the desired range as determined by power analysis for bivariate correlation tests, tests of difference, and multiple regression analysis. Specifically, with a power level of .80 and alpha of .05, a sample size of 126 was needed to achieve an estimated effect of .25 for bivariate correlation tests (Polit & Hungler, 2000). Using the same power and alpha levels, sample sizes of 126 and 159 (i.e., medium effect size of .50) were needed for two- and three-group tests of difference, respectively (Polit & Hungler, 2000). Finally, using the same power and alpha levels, sample sizes of 124 and 134 (i.e., medium effect size of .13) was needed for multiple regression analysis with 10 and 12 independent or predictor variables, respectively (Cohen, 1988).

Procedure

The various data collection phases of the larger research project commenced following ethical approval from the Human Investigation Committee, Faculty of Medicine, Memorial University of Newfoundland (see Appendix A). Questionnaires were mailed to all acute care nurses working within the province who met the inclusion criteria. Data were collected from November, 1999 to February, 2000. A cover sheet describing the study was attached to the front of the Employee Attitudes Survey (EAS) (see Appendix B). Reminder letters and an additional EAS were mailed out in January, 2000 (see Appendix C).

The ARNNL supported and facilitated data collection by generating the most updated list of acute care staff nurses by registration number and matching region. ARNNL registration numbers were recorded on the questionnaires for the purpose of including the same respondents in the 2002 survey of the larger project. The questionnaires plus cover letters and return envelopes with postage stamps were mailed to potential participants by the ARNNL. Both the cover sheets and reminder letters were printed on the ARNNL letterhead.

Instruments

The EAS was used to collect data (see Appendix D). The EAS is comprised of a General Information sheet, a Staffing Issues form, and six scales: Organizational Commitment Questionnaire (OCQ), Psychological Contract

Violation (PCV) scale, Intent to Stay (IS) scale, General Job Satisfaction (GJS) scale, Restructuring Satisfaction (RS) scale and Revised Impact of Health Care Reform Scale (RIHCRS). A brief overview is presented on each section of the EAS, as well as reliability and validity findings.

General Information/Staffing Issues

A general information and staffing issues section was included in the EAS to collect data on key personal characteristics (i.e., primary area of responsibility, current position tenure, years nursing experience, education background, current employment status, region of employment, gender, and age). As well, information was collected on select staffing-related variables (e.g. staffing patterns, workload, ratio of RNs/Licenced Practical Nurses, incidence of illness and work-related injuries, and perception of staffing adequacy in individual organizations).

Organizational Commitment Questionnaire

The OCQ, developed by Mowday et al. (1979), was used to assess acute care nurses' overall commitment to their organization. The 9-item version was used in the current study. Items are rated on a 7-point scale, ranging from 1 *(strongly disagree)* to 7 *(strongly agree)*, with higher scores indicating greater organizational commitment. Factor analysis has confirmed the construct validity

of the scale (i.e., unidimensional construct), and alpha coefficients were reported to range from .84 to .90 (Mowday et al., 1979). This scale has been used extensively in previous studies of health care personnel. In a repeat survey of nurse participants in the Way (1995) study, Way and Gregory (2000) reported a high internal consistency (α = .92) for the OCQ.

Psychological Contract Violation Scale

The PCV scale, developed by Turnley and Feldman (1998), was used to measure psychological contract violation. The PCV scale is a 4-item scale that assesses transactional and relational aspects of psychological contracts. It is comprised of three positively worded items and one negatively worded item. Items are rated on a 5-point scale, ranging from 1 *(very poorly fulfilled, very infrequently, much less than promised, or much less than it should)*, to 5 *(very well fulfilled, very frequently, much more than promised, or more than it should)*. Negatively worded items were reverse scored prior to data entry. The higher the scale score, the less the likelihood of perceived contract violation. Turnley and Feldman reported high internal consistency for the PCV (α = .86). Way and Gregory (2000) also reported a good internal consistency for this scale (α = .75).

Intent to Stay Scale

The IS scale was adapted from the Intent to Quit and Job Search Scales developed by Turnley and Feldman (1998). This 3-item scale was used to assess the likelihood of staying with current employers, potential for leaving if an external job opportunity became available, and search efforts for alternate job opportunities. The IS scale is comprised of one positively worded item and two negatively worded items. Items are rated on a 5-point scale, ranging from 1 *(very unlikely/infrequently)* to 5 *(very likely/frequently)*. Negatively worded items were reverse scored prior to data entry. Turnley and Feldman reported a high internal consistency (α = .92) for the IS scale. Way and Gregory (2000) also reported a good internal consistency for this scale (α = .73).

General Job Satisfaction Scale

The Hackman and Oldham (1975) GJS Scale of the Job Diagnostic Survey was used to measure overall job satisfaction. The three items comprising the scale are ranked from 1 *(strongly disagree)* to 7 *(strongly agree)*, with higher scores indicating greater job satisfaction. The GJS has been used widely to assess nurses' job satisfaction, with reported reliabilities of $\geq$ .76. Way and Gregory (2000) also reported a very good internal consistency for this scale (α = .78).

Restructuring Satisfaction Scale

The Restructuring Satisfaction (RS) scale, developed by Way (1999a), was used to assess acute care nurses' satisfaction with managerial support and interdisciplinary approaches to care. The five items comprising this scale are rated on a 6-point scale, ranging from 1 *(strongly disagree)* to 6 *(strongly agree)*, with higher scores indicating greater satisfaction with restructuring initiatives. Way and Gregory (2000) reported a fairly strong internal consistency for this scale (α = .89).

Revised Impact of Health Care Reform Scale

The RIHCRS (Way, 1999b) is a modified version of the Impact of Health Care Reform Scale (IHCRS) developed by Way (1995). This scale was used to measure acute care nurses' perceptions of the impact of health care reforms in six content domains (i.e., importance of reforms, emotional climate of the workplace, practice-related issues, quality of care concerns, safety concerns, and standards of care concerns). The final version of the RIHCRS is comprised of 28 items (i.e., items 36 and 62 dropped following factor analysis with the data of several provider groups in the larger study), with 15 of the items positively worded and thirteen negatively worded. Each item is rated on a 6-point Likert scale, ranging from 1 *(strongly disagree)* to 6 *(strongly agree)*. Negatively worded items were reverse scored prior to data entry. The possible total score

range is 28 to 168, with higher scores indicative of more positive attitudes toward the impact of health care reforms.

Way (1995) reported on the strong validity and reliability of the original IHCRS. 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). The alpha coefficient for the total scale was .87, with ranges from .61 to .79 for the subscales. Pyne's (1998) study findings also supported the validity and reliability of the IHCRS. The total scale was reported to have an internal consistency of .83, with ranges from .46 to .67 for the subscales. Finally, Way and Gregory (2000) also reported good validity and reliability of the RIHCRS. Factor analysis supported the construct validity of the scale, with items loading on six factors representing theoretical meaningful clusters. The total scale also had an internal consistency of .87, with ranges from .60 to .82 for the subscales.

Ethical Considerations

The study was approved by the Human Investigation Committee, Faculty of Medicine, Memorial University of Newfoundland (see Appendix A) as one component of a larger study investigating the impact of restructuring on acute care hospitals in Newfoundland and Labrador. The purpose of the current study was outlined on the cover sheet of the EAS. Potential participants were

informed of the voluntary nature of their participation, and assured of complete anonymity and confidentiality of responses. ARNNL registration numbers were recorded on the questionnaires for the purpose of including the same respondents in the follow-up component of the larger study. The researcher could not match registration numbers with personal identifiers (i.e., names or addresses), since all identifying information was retained by the ARNNL.

Data Analysis

Data were coded and entered into the Statistical Package for the Social Sciences (SPSS) for analysis. There was a minimal amount of missing data, thus cases were deleted selectively on a variable by variable basis. Descriptive statistics were used to examine personal characteristics, staffing issues, and the distribution of individual items, sub-scales, and total scale scores. Group differences for the subscales and total scores were determined by one-way analysis of variance (ANOVA) and the t-test for independent groups. The Bonferroni and Tamhane multiple comparison procedures were used to identify differences in group means for ANOVA. The appropriate bivariate correlation coefficient, Pearson's r or Spearman's rho (i.e., depending on the severity of score skewness), was used to determine the relationship between variables. An alpha level of .05 was selected as the significance level for tests of association and difference.

Stepwise multiple regression analysis, using a sequential or hierarchical approach based on the logic of the CMBI, was used to identify the best predictors of intermediate outcomes (i.e., psychological contract violation, restructuring satisfaction, general job satisfaction, and organizational commitment), and behavioral intentions (i.e., intent to stay). Only independent variables depicting a strong correlation with intermediate outcomes and behavioral intentions were entered into the regression equation. Multicollinearity did not surface as a problem during regression analysis. Cronbach's alpha was used to assess the internal consistency of all EAS scales.

Limitations

Proportionate stratified random sampling was used to ensure appropriate representation from various regions of the province. However, the low response rate of 34.1 % may compromise the sample's representativeness and limits accurate documentation of regional similarities/differences. Additional study limitations include the use of self-report measures and the absence of researcher control over the situation under which respondents completed the questionnaire (e.g., collaboration with others, clarity or relevancy of scale items, etc.).

CHAPTER 4

Results

Study findings are presented in four sections. The first section presents a descriptive profile of the sample and key study variables. The second section summarizes the findings on the relationships among variables. The third section presents the results of multiple regression analysis. 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 personal characteristics and nurses' perceptions of staffing issues. Descriptive findings are also presented on key study variables (i.e., impact of health care reforms, restructuring and general job satisfaction, psychological contract violation, organizational commitment, and intent to stay).

Personal Characteristics

Tables 1 and 2 summarize key sample characteristics. The majority of respondents were female (97.8%), had a diploma/certificate education level (86.1%), were employed on a full-time permanent basis (76.2%), and had 10 or more years of nursing experience (74%). A significant percent of respondents

Table 1

Personal Characteristics (N = 223)[1]

Characteristic	*n*	%
Gender		
Male	5	2.2
Female	218	97.8
Education		
Diploma/certificate	192	86.1
Baccalaureate	29	13.0
Masters or higher	2	0.9
Employment Status		
Full-time	170	76.2
Part-time	36	16.1
Casual	17	7.6
Work Experience		
4 years or less	22	9.9
5 to 9 years	36	16.1
10 to 19 years	93	41.7
20 years or more	72	32.3
Current Position Tenure		
2 years or less	47	21.1
3 to 4 years	34	15.2
5 to 9 years	62	27.8
10 to 19 years	63	28.3
20 or more	17	7.6

[1] The sample size varies as a function of missing data.

Table 2

Personal Characteristics and Staffing Issues (N = 223)[1]

Characteristic	*n*	%
Personal Characteristics		
Region of Employment		
St. John's	91	41.2
Eastern 2 (Avalon)	23	10.4
Eastern 3 (Peninsulas)	17	7.7
Central (East/West)	31	14.0
Western	37	16.7
Labrador/Northern	22	10.0
Staffing Issues		
Bed Capacity		
< 50	47	22.3
50 - 100	68	32.2
> 100	96	45.5
Sick Leave (Annual)		
0 days	30	14.3
1 - 2 days	34	16.2
3 - 4 days	43	20.4
5 - 6 days	39	18.6
≥ 7 days	64	30.5

[1] Sample size is a function of missing data.

were in their current positions for less than 10 years (64.1%) and employed in acute care facilities outside of the St. John's region (58.8%). The mean age for the sample was 38.26 (*SD* ± 8.07).

Staffing Issues

Survey respondents were also asked to provide information on their hospital's acute care bed capacity and personal sick leave days. A significant percent of the respondents worked in hospitals with greater than 100 beds (45.5%) and reported having 5 or more sick leave days over the past year (49.1%).

The respondents were also asked to indicate how they felt about select staffing issues in their organizations. Most nurses reported that the staffing situation on their units was inadequate for meeting patient needs (62.1%), the current availability of registered nurse (RN) staff for patient care was much less than prior to restructuring/downsizing (68.4%), and casual RNs or call backs were often needed to bring the staff/patient ratio up to adequate levels (72%). A majority of respondents also had annual leave requests denied (55.8%), and had to miss nutrition breaks (88.1%). On a more positive note, a slight majority of respondents were never or rarely required to return to work on their days-off (52.1%).

Impact of Health Care Reforms

The areas addressed by health care reform impact included the importance of reforms, the emotional climate of the workplace, practice-related issues, quality of care, safety concerns, and standards of care. Table 3 presents the means, standard deviations, and weighted means for the subscales and total score. Higher scores reflect more positive attitudes.

The findings indicated that most acute care nurses had negative attitudes toward the overall impact of health care reforms (M = 2.92). As well, the findings indicated that nurses were most positive about the importance of reforms, safety concerns, and practice-related issues, respectively. Conversely, nurses were most negative about the emotional climate of the workplace, followed by quality of care and standards of care.

The presentation of findings is organized according to each subscale of the RIHCRS. The percentage of positive and negative responses reflect a collapsing of all levels of agreement (positive) and disagreement (negative), respectively.

Importance of reforms. With regard to health care reforms, most nurses' perceptions were positive (M = 4.01). Individual items making up this subscale provide greater insight into respondents' perceptions. Specifically, most nurses understood the importance of downsizing/ restructuring (53.8%), believed that community-based care was a positive step (74.9%),

Table 3

Mean and Standard Deviation Scores for the RIHCRS (N = 223)[1]

Subscales	*M*	*SD*	Weighted[2, 3] *M*
Importance of Reforms	16.04	3.40	4.01
Workplace Issues			
Emotional Climate	17.33	6.76	2.48
Practice-Related	11.41	4.50	2.85
Quality/Safety Concerns			
Quality of Care	10.12	3.72	2.53
Safety Concerns	15.58	4.50	3.12
Standards of Care	11.13	4.18	2.78
Overall Impact of Reforms	81.61	19.83	2.92

Note. RIHCRS = Revised Impact of Health Care Reform Scale.

[1] Sample size varies due to missing data.

[2] Subscale scores were summed and divided by the number of items to generate a weighted mean for comparison purposes.

[3] The rating scale for all of the subscales ranged from a low of (1) to a high of (6), with a mean of 3.5.

appreciated the challenges facing their profession (86.5%), and felt empowered to be active participants in affirming an important future role for their profession (61%).

Emotional climate. Most nurses viewed the emotional climate of the workplace in a negative light (M = 2.48). More specifically, most nurses felt frustrated with the reduced level of care being provided due to increased workloads (81.6%) and found their jobs less satisfying and challenging since restructuring of the health care system (91.9%). As well, the majority of nurses believed that increased demands and stress in the workplace had led to unpleasant working relations with co-workers and other health care providers (76%) and had engendered a sense of disillusionment and low morale (91.5%). A significant, but smaller, percentage of respondents felt that the absence of a supportive environment prevented them from giving that "extra" effort when their jobs demanded it (45%).

Practice-related issues. Overall, most nurses held negative attitudes toward practice-related issues (M = 2.85). Most respondents felt that management did not meet regularly with the staff to discuss workplace concerns (54.3%) or to identify ways to resolve problems and build on strengths (63.2%). Furthermore, most nurses felt that they were not being provided with opportunities (e.g., in-services, workshops, etc.) to keep current with latest developments (58.3%). Finally, the majority of respondents felt that system

changes had not provided health care providers with an opportunity to have more control over their practice (82.1%).

Quality of care. The mean score (*M* = 2.53) indicated that a significant number of nurses had concerns about the quality of care being provided in their institutions. Specifically, most nurses did not believe that supplies/resources were adequate to ensure patient comfort (76.7%), or that it was possible to meet patients' basic care needs (61.7%). Furthermore, most respondents felt that due to increasing acuity levels it was not possible to adequately assess/meet patients' emotional/psychosocial needs (89.7%). As well, most respondents believed that patients do not have reasonable access to health services since downsizing/restructuring (75.2%).

Safety concerns. The mean score (*M* = 3.12) indicated that most nurses were concerned about safety in the workplace. Most respondents felt that agency procedures were being performed in a safe and competent manner (68.2%) and the necessary physical resources (61.4%) were available to provide safe care. In contrast, smaller percentages of nurses felt that required human resources were always available to provide safe care (42.2%), believed that adequate teaching/counselling was being provided to patients and their families prior to discharge (31.4%), and perceived that adequate community resources were always available for patients following hospital discharge (16.7%).

Standards of care. The mean score (*M* = 2.78) indicated that nurses

viewed the standards of care present in their institutions in a negative light. Most nurses felt that in-service education on new policies/procedures were insufficient to avoid placing patients at risk (54.5%), and believed that patients were more susceptible to potential harm from errors or delays due to increased demands in the workplace (85.7%). Furthermore, a significant number of respondents felt that it was necessary to lower professional standards due to overwhelming workload demands (84.8%) and increased acuity and shortened lengths of stay (70.3%).

Work-Related Variables

The PCV scale, the RS scale, the GJS scale, and the OCQ assessed work-related attitudes, while the IS scale assessed behavioral intentions. The mean, standard deviation, and weighted mean scores for the scales are presented in Table 4. The findings are summarized according to each work-related variable.

Psychological contract violation. The weighted mean score (M = 2.57) indicated that most nurses believed that implied contracts with employers were less than adequately fulfilled. The reader is reminded that higher scores are indicative of lower levels of psychological contract violations.

These results are somewhat misleading due to the large number of neutral responses. Individual items present a more complete picture of nurses'

Table 4

Mean and Standard Deviation Scores for the Work-Related Scales

(N = 223)[1]

Scales	*M*	*SD*	Weighted[2] *M*	Range
Psychological Contract Violation	10.27	2.44	2.57	1 - 5
Restructuring Satisfaction	13.67	5.91	2.73	1 - 6
General Job Satisfaction	12.20	4.48	4.07	1 - 7
Organizational Commitment	30.35	11.64	3.37	1 - 7
Intent to Stay	9.33	3.04	3.11	1 - 5

[1] Sample size varies with the amount of missing data in each scale.

[2] Subscale scores were summed and divided by the number of items to generate a weighted mean for comparison purposes.

attitudes. Although 47.3% of respondents were neutral about how well employers had fulfilled commitments made to them upon hiring, only 25.1% felt that original commitments had been fulfilled. Likewise, 46.2% of respondents were neutral about how often their employers had failed to meet commitments made to them, whereas 32.1% indicated that this was an infrequent occurrence. In contrast, while 48.6% of respondents felt that the amount of rewards received from their organization was about the same as promised, 49.5% felt that the amount was less than it should be. Finally, most respondents (87.7%) felt that the amount of rewards received was much lower than their expectations.

Restructuring satisfaction. The mean score on the RS scale (M = 2.73) indicated that most respondents were generally dissatisfied with restructuring. The individual items of this scale provide a more insightful picture of how nurses' were viewing restructuring initiatives. Most respondents were dissatisfied with the interdisciplinary approach to patient/client care (52.9%) and the time spent on interdisciplinary conflicts (68.6%). With regard to how managers were being perceived, most respondents were dissatisfied with the visibility and accessibility of management since restructuring (68.6%), with the degree to which management sought input on professional care standards (70.4%), and the amount of information/inservice provided to help prepare staff for restructuring related-changes (70.4%).

General job satisfaction. Study findings indicated that nurses were

neither totally satisfied nor dissatisfied with their jobs (M = 4.07). Individual items making up the GJS provide a more in-depth view of nurses' attitudes. The majority of nurses were very satisfied with the type of work in their jobs (73.5%). Conversely, less than one half of the respondents (45.3%) indicated that they were satisfied with their jobs, and only 23.5% believed that their co-workers were satisfied with their jobs.

Organizational commitment. The findings indicated that most nurses had low levels of commitment to their organizations (M = 3.37). Individual items making up this subscale provide greater insight into respondents' perceptions. Most nurses indicated that they were willing to give that extra effort to ensure organizational success (51.1%) and really cared about the fate of the organization (63.3%). On the negative side, only a small percent of respondents felt that their values and those of their organization were similar (24.9%), were proud to tell others that they were part of the organization (25.8%), could tell their friends that this organization is great to work for (17.1%), felt really inspired to perform the best on the job (18.5%), were happy with selecting this organization over others (24.5%), felt that this was the best of all possible organizations for which to work (19.9%), and were willing to accept any type of job assignment to maintain employment with the organization (12.2%).

Intent to stay. The findings suggested that most nurses were unsure about whether or not they would stay with their organization (M = 3.11). The

individual items for this scale provide greater insight into nurses intentions about staying with current employers. Although less than one-half of the respondents reported that they would likely stay with current employers (49.8%), a significant number were unsure (36.5%). Furthermore, while most respondents indicated that they would likely leave their current positions if another employment opportunity presented itself (52.7%), only 34.8% had seriously engaged in job search activities.

Interrelationships Among Study Variables

This section examines the effect of personal characteristics or correlates (i.e., region of employment, employment status, work experience, current position tenure, education, gender and age) and staffing issues (i.e., hospital bed capacity. annual sick leave, and staffing adequacy) on the perceived impact of health care reforms, psychological contract violation, restructuring and general job satisfaction, organizational commitment, and intent to stay. One-way analysis of variance (ANOVA) and the t-test for independent groups were used to identify group differences. The Bonferroni and Tamhane multiple comparison procedures were used to identify differences in group means for ANOVA. An alpha level of .05 was selected as the significance level for tests of difference.

When appropriate, the relationships among major study variables were examined. Pearson's r was used to determine the relationship among variables.

An alpha level of .05 was selected as the significance level for tests of association.

Reform Impact and Personal Characteristics/Staffing Issues

The findings revealed few significant differences for the reform impact variables across most correlates (i.e., personal characteristics and staffing issues). There were no significant differences observed for the reform impact variables based on current position tenure, region of employment (i.e., St. John's vs. other regions), education level, or acute care bed capacity. Gender differences were not examined due to the small sample of males (i.e., four). Employment status, work experience, annual sick leave, and age exerted the greatest influence. Tables 5 and 6 summarize study findings.

Nurses working in full-time positions were significantly more positive about the emotional climate of the workplace than those working on a part-time basis, F (2, 220) = 3.62, $p < .05$. Although work experience had a significant effect on practice-related issues, F (3, 219) = 3.37, $p < .05$, quality of care, F (3, 219) = 2.73, $p < .05$, and overall impact of health care reform, F (3, 219) = 2.83, $p < .05$, these differences failed to reach statistical significance on the post-hoc comparison procedures. Finally, older nurses tended to perceive the emotional climate of the workplace, $r = .17$, $p < .05$, safety issues, $r = .17$, $p < .05$, and the overall impact of reforms, $r = .17$, $p < .05$, more positively than younger nurses.

Table 5

Reform Impact Variables by Correlates

Scale	Employment Status	Work Experience
Importance of Reforms	$F = 0.72$ ($p = .490$)	$F = 0.20$ ($p = .896$)
Workplace Issues		
Emotional Climate	$F = 3.62^{*}$ ($p = .028$)	$F = 1.89$ ($p = .132$)
Practice-Related	$F = 0.91$ ($p = .403$)	$F = 3.37^{*}$ ($p = .019$)
Quality/Safety Concerns		
Quality of Care	$F = 0.84$ ($p = .434$)	$F = 2.73^{*}$ ($p = .045$)
Safety Concerns	$F = 0.58$ ($p = .559$)	$F = 1.35$ ($p = .258$)
Standards of Care	$F = 2.17$ ($p = .117$)	$F = 0.99$ ($p = .397$)
Overall Reform Impact	$F = 2.28$ ($p = .105$)	$F = 2.83^{*}$ ($p = .039$)

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 6

Reform Impact Variables by Correlates

Scale	Age	Annual Sick Leave
Importance of Reforms	$r = 0.12$ ($p = .089$)	$F = 0.28$ ($p = .889$)
Workplace Issues		
Emotional Climate	$r = .17^{*}$ ($p = .011$)	$F = 1.20$ ($p = .297$)
Practice-Related	$r = .04$ ($p = .596$)	$F = 1.24$ ($p = .297$)
Quality/Safety Concerns		
Quality of Care	$r = .12$ ($p = .074$)	$F = 3.73^{**}$ ($p = .006$)
Safety Concerns	$r = .17^{*}$ ($p = .011$)	$F = 4.36^{**}$ ($p = .002$)
Standards of Care	$r = .08$ ($p = .20$)	$F = 2.01$ ($p = .094$)
Overall Reform Impact	$r = .17^{*}$ ($p = .014$)	$F = 2.94^{*}$ ($p = .022$)

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Annual sick leave significantly affected select reform impact variables. Specifically, nurses with 1 to 2 sick leave days were significantly more positive about the quality of care, F (4, 215) = 3.73, $p < .01$, and the overall impact of reforms, F (4, 215) = 2.94, $p < .05$, than those with 7 or more sick leave days. As well, nurses with 1 to 2 sick leave days were significantly more positive about safety measures than those with 5 to 6 days F (4, 215) = 4.36, $p < .01$.

Table 7 summarizes the relationships among staffing adequacy and reform impact variables. The low correlations indicate that these variables had a minimal effect on perceptions of reforms. Greater perceived staffing adequacy for meeting patient care needs and greater perceived comparability of RN availability prior to and post restructuring were significantly correlated with more positive perceptions of the importance of reforms, the emotional climate of the workplace, quality of care, safety measures, standards of care, and overall reform impact. As well, greater perceived staffing adequacy was significantly correlated with more positive perceptions of practice-related issues. In contrast, greater reliance on casual RNs or call backs to ensure adequate staff/patient ratios was significantly correlated with more negative views of the emotional climate of the workplace, practice-related issues, quality of care, safety measures, standards of care, and the overall impact of reforms. In addition, a greater frequency of annual leave refusals was significantly correlated with more negative perceptions of the importance of reforms, the emotional climate of the

Table 7

Reform Impact Variables by Staffing Adequacy

Variable	SI1 *r*	SI2 *r*	SI3 *r*	SI4 *r*	SI5 *r*	SI6 *r*
Importance of Reforms	.17*	-.11	.16*	-.08	-.16*	-.05
Workplace Issues						
Emotional Climate	.30***	-.32***	.16*	-.19**	-.29***	-.19**
Practice-Related	.21**	-.21**	.07	-.21**	-.28***	-.23***
Quality/Safety Concerns						
Quality of Care	.37***	-.26***	.26***	-.21**	-.33***	-.22**
Safety Concerns	.29***	-.19**	.27***	-.23**	-.31***	-.21**
Standards of Care	.30***	-.22**	.15*	-.20**	-.28***	-.17*
Overall Impact	.38***	-.31***	.24***	-.26***	-.38***	-.25***

Note. SI1 = staffing adequacy; SI2 = casual/call back RN requirements; SI3 = RN staff for patient care pre- and post-restructuring; SI4 = ordered back to work on days off; SI5 = denied annual leave; SI6 = frequency of missed nutrition breaks.

* $p < .05$, ** $p < .01$, *** $p < .001$

workplace with more negative perceptions of the importance of reforms, the emotional climate of the workplace, practice-related issues, quality of care, safety measures, standards of care, and the overall impact of reforms. Finally, a greater frequency of being ordered back to work on days off and missing nutrition breaks were significantly correlated with more negative perceptions of the emotional climate of the workplace, practice-related issues, quality of care, safety measures, standards of care, and the overall impact of reforms.

Work-Related Variables and Personal Characteristics/Staffing Issues

A number of correlates influenced nurses' ratings of work-related variables. The discussion is organized according to each work-related variable. Tables 8, 9, and 10 summarize study findings.

Psychological contract violation. With regards to psychological contract violation, no significant differences were observed based on employment status, current position tenure, education level, region of employment, age, acute care bed capacity, or annual sick leave. Significant differences in contract violations were obtained for years of work experience. Nurses with 5 to 9 years of work experience were more likely to feel that their employers had violated implied contracts than those with less than 5 years and greater than 20 years work experience, F (3, 218) = 4.75, $p < .01$.

Table 8

Work-Related Variables by Personal Characteristics

Variable	Employment Status	Work Experience
Psychological Contract Violation	$F = 1.30$ ($p = .276$)	$F = 4.75^{**}$ ($p = .003$)
Restructuring Satisfaction	$F = 1.14$ ($p = .322$)	$F = 3.22^{*}$ ($p = .024$)
General Job Satisfaction	$F = 0.55$ ($p = .579$)	$F = 1.60$ ($p = .190$)
Organizational Commitment	$F = 2.96$ ($p = .054$)	$F = 6.58^{***}$ ($p = .000$)
Intent to stay	$F = 5.31^{**}$ ($p = .006$)	$F = 6.35^{***}$ ($p = .000$)

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 9

Work-Related Variables by Personal Characteristics

Variable	**Current Position Tenure**	**Age**
Psychological Contract Violation	$F = 2.05$ ($p = .108$)	$r = 0.13$ ($p = .056$)
Restructuring Satisfaction	$F = 0.73$ ($p = .536$)	$r = .03$ ($p = .630$)
General Job Satisfaction	$F = .36$ ($p = .779$)	$r = .18^{*}$ ($p = .010$)
Organizational Commitment	$F = 1.09$ ($p = .354$)	$r = .18^{**}$ ($p = .007$)
Intent to stay	$F = 6.34^{***}$ ($p = .000$)	$r = .27^{***}$ ($p = .000$)

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 10

Work-Related Variables by Staffing Adequacy

Variable	SI1 *r*	SI2 *r*	SI3 *r*	SI4 *r*	SI5 *r*	SI6 *r*
Contract Violation	.31***	-.28***	.05	-.14*	-.28***	-.23**
Restructuring	.28***	-.19**	.11	-.19**	-.21**	-.16*
General Job Satisfaction	.29***	-.39***	.17*	-.15*	-.23**	-.14*
Commitment	.23**	-.28**	.16*	-.03	-.29***	-.14*
Intent to Stay	.18**	-.17*	.06	-.09	-.11	-.09

Note. SI1 = staffing adequacy; SI2 = casual/call back RN requirements; SI3 = change in availability of RN staff for patient care; SI4 = ordered back to work on days off; SI5 = denied annual leave; SI6 = frequency of missed nutrition breaks;

* $p < .05$, ** $p < .01$, *** $p < .001$

There were significant correlations among the staffing adequacy variables and psychological contract violation, but most were in the low range. Greater perceived staffing adequacy for meeting patient care needs was significantly correlated with lower levels of psychological contract violation. In contrast, greater reliance on casual RNs and/or call backs for ensuring adequate staff/patient ratios was significantly correlated with higher levels of contract violations. As well, higher incidences of being ordered back to work on days off, having annual leave requests denied, and missing nutrition breaks were significantly correlated with greater violations of implied contracts.

Restructuring satisfaction. There were no significant differences in restructuring satisfaction based on age, region of employment, employment status, current position tenure, education level, acute care bed capacity, or annual sick leave. The one exception was years of work experience. Nurses working less than 5 years were significantly more satisfied with restructuring than those with 10 to 19 years of work experience, F (3, 219) = 3.22, $p < .05$.

With regard to staffing adequacy, most variables, with the exception of perceived changes in RN staff availability pre- and post-restructuring, exerted a low, but significant, effect on restructuring satisfaction. The findings indicated that greater perceived staffing adequacy for meeting patient care needs was significantly correlated with greater restructuring satisfaction. In contrast, greater reliance on casual RNs and/or call backs to ensure adequate

staff/patient ratios was significantly correlated with less restructuring satisfaction. As well, a greater frequency of being ordered back to work on days off, having annual leave requests denied, and missing nutrition breaks were significantly correlated with lower levels of restructuring satisfaction.

General job satisfaction. There were no significant differences in general job satisfaction based on current position tenure, years of work experience, region of employment, employment status, education level, acute care bed capacity, or annual sick leave. The only personal characteristic observed to significantly affect job satisfaction was age. Older nurses tended to be more satisfied with their jobs than younger ones, $r = .18$, $p<.05$.

All of the staffing adequacy variables depicted low, significant correlations with restructuring satisfaction. The findings indicated that greater perceived staffing adequacy for meeting patient care needs and greater comparability of RN staff availability pre- and post-restructuring were significantly associated with greater overall job satisfaction. In contrast, greater reliance on casual RNs and/or call backs to ensure adequate staff/patient ratios was significantly correlated with lower levels of job satisfaction. As well, a greater frequency of being ordered back to work on days off, having annual leave requests denied, and missing nutrition breaks were significantly correlated with less overall job satisfaction.

Organizational commitment. No significant differences were observed

in organizational commitment for position tenure, employment status, education level, region of employment, acute care bed capacity, or annual sick leave. Years of work experience and age were found to exert significant effects on commitment. Generally, nurses with 5 to 19 years of work experience were significantly less committed to their organizations than their counterparts with less than 5 years or greater than 20 years experience, F (3, 218) = 6.58, $p <$ .001. Finally, older nurses were significantly more committed to their organization than those younger in age, r = .18, $p <$ .01.

Most of the staffing adequacy variables were observed to exert a low, but significant, effect on organizational commitment. The only exception was the frequency of annual leave refusals. The findings indicated that greater perceived staffing adequacy for meeting patient care needs and greater comparability of RN staff availability pre- and post-restructuring were significantly correlated with greater organizational commitment. In contrast, greater reliance on casual RNs and/or call backs to ensure adequate staff/patient ratios was significantly correlated with lower levels of commitment. Finally, a greater frequency of being ordered back to work on days off and missing nutrition breaks were significantly correlated with lower levels of commitment.

Intent to stay. With regard to intent to stay, significant differences were observed based on years of work experience, employment status, current

position tenure, and age. No significant differences were found for education, region of employment, acute care bed capacity, or annual sick leave. Nurses with 10 or more years of work experience were significantly more likely to stay with their current employers than with 5 to 9 years, F (3, 218) = 6.35, $p < .001$. In addition, nurses employed in full-time positions or in their current positions for 10 years or more were significantly more likely to stay with their current employers than their counterparts employed on a part-time basis, F (2, 219) = 5.31, $p < .01$, or in current positions for less than 10 years, F (3, 218) = 6.34, $p < .001$. Finally, older nurses were significantly more likely to stay with current employers than younger nurses, $r = .27$, $p < .001$.

Most of the staffing adequacy variables were not found to influence intent to stay. The only exceptions were perceived staffing adequacy and the use of casual/call back RNs. The findings indicated that greater perceived staffing adequacy for meeting patient care needs and less reliance on casual RNs and/or call backs to ensure adequate staff/patient ratios were significantly correlated with a greater likelihood of staying with current employers.

Reform Impact and Work-Related Variables

There were statistically, significant positive relationships among all of the reform impact and work-related variables (see Table 11). Overall, the findings indicated that nurses who viewed the impact of health care reforms in a more

Table 11

Correlation of Reform Impact Variables with Work-Related Variables

Variable	PCV *r*	RS *r*	GJS *r*	OC *r*	IS *r*
Importance of Reforms	.19**	.28***	.26***	.35***	-.02
Workplace Issues					
Emotional Climate	.57***	.51***	.47***	.54***	.38***
Practice-Related	.38***	.66***	.25***	.46***	.27***
Quality/Safety Concerns					
Quality of Care	.42***	.42***	.28***	.45**	.28***
Safety Concerns	.43***	.42***	.35***	.44***	.36***
Standards of Care	.39***	.40***	.26***	.35***	.28***
Overall Impact	.57***	.63***	.45***	.60***	.38***

Note. PCV = Psychological Contract Violation; RS = Restructuring Satisfaction; GJS = General Job Satisfaction; OC = Organizational Commitment; IS = Intent to Stay.

* $p < .05$, ** $p < .01$, *** $p < .001$

positive light were less inclined to believe that employers had violated psychological contracts, were more satisfied with restructuring initiatives and their jobs, were more committed to their organizations, and were more likely to stay with their current employer.

Based on the coefficient of determination (i.e., r^2), the importance of reforms accounted for 3.6%, 7.8%, 6.8%, and12.3% of the variance in psychological contract violation, restructuring satisfaction, general job satisfaction, and organizational commitment, respectively. The emotional climate of the work environment accounted for 32.5%, 26%, 22.1%, 29.2%, and 14.4% of the variance in psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay, respectively. Practice-related issues accounted for 14.4%, 43.6%, 6.3%, 21.2%, and 7.3% of the variance in psychological contract violation, restructuring satisfaction, job satisfaction, organizational commitment, and intent to stay, respectively. Quality of care accounted for 17.6%, 17.6%, 7.8%, 20.3%, and 7.8% of the variance in psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay, respectively. Safety issues accounted for 18.5%, 17.6%, 12.3%, 19.4%, and 13% of the variance in psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay, respectively. Standards of care accounted for 15.2%, 16%, 6.8%, 12.3%,

and 7.8% of the variance in psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay, respectively. Finally, the overall reform impact accounted for 32.5%, 39.7%, 20.3%, 36%, and 14.4% of the variance in psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay, respectively.

PCV, RS, GJS, OC, and IS

Statistically, significant positive relationships were observed among all of the work-related variables (see Table 12). In terms of the coefficient of determination (i.e., r^2), psychological contract violation accounted for 19.4%, 19.4%, 41%, and 21.2% of the variance in restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay, respectively. Restructuring satisfaction accounted for 15.2%, 24%, and 7.8% of the variance in general job satisfaction, organizational commitment, and intent to stay, respectively. General job satisfaction accounted for 30.3% and 13.7% of the variance in organizational commitment and intent to stay, respectively. Finally, organizational commitment accounted for 24% of the variance in intent to stay.

Predictors of Outcome

Stepwise multiple regression analysis was used to identify significant

Table 12

Correlations Among PCV, RS, GJS, OC, and IS

	PCV *r*	RS *r*	GJS *r*	OC *r*	IS *r*
PCV	---	---	---	---	---
RS	.44***	---	---	---	---
GJS	.44***	.39***	---	---	---
OC	.64***	.49***	.55***	---	---
IS	.46***	.28***	.37***	.49***	---

Note: PCV = Psychological Contract Violation; RS = Restructuring Satisfaction; GJS = General Job Satisfaction; OC = Organizational Commitment; and IS = Intent to Stay.

*** $p < .001$

predictors of intermediate outcomes (i.e., psychological contract violation, general job satisfaction, restructuring satisfaction, and organizational commitment) and behavioral intentions (i.e., intent to stay). Different combinations of predictor variables were used to identify the best regression model for each outcome variable. The determinants or reform impact variables (i.e., importance of reforms, emotional climate, practice-related issues, quality of care, safety concerns, and standards of care) were entered first as a group, followed by the covariates of each intermediate outcome, and finally the correlates (i.e., personal characteristics and staffing issues). The tabular presentations of the results are restricted to the final regression models for each outcome variable (see Tables 13 and 14).

Psychological Contract Violation

The first level modelling was restricted to a consideration of the predictive power of the reform impact variables and correlates on implied contract violations. Correlation analysis demonstrated significant, positive relationships between all major components of the RIHCRS (i.e., perception of reforms, emotional climate, practice-related issues, quality of care and safety concerns, standards of practice) and psychological contract violation. Several correlates were also found to influence contract violations (i.e., years of work experience, staffing adequacy, use of casual RNs and/or callbacks, availability of RNs pre-

and post-restructuring, frequency of required overtime, denied annual leave, and missed nutrition breaks).

During the first step of regression analysis, emotional climate, quality of care, and practice-related issues combined to explain 36.4% of the variance in implied contract violations. Emotional climate entered the regression equation first, accounting for 32.6% of the variance. This variable was followed by quality of care and practice-related issues which accounted for an additional 2.5% and 1.3%, respectively. Importance of reforms, safety issues, and standards of care failed to enter the regression equation.

When the correlates were added at the second step, only frequency of annual leave denial entered the regression equation and practice-related issues was removed. Emotional climate, quality of care, and the frequency of annual leave denial combined to explain 39.7% of the variance in psychological contract violation. Emotional climate entered the regression equation first, accounting for 35.2% of the variance. This variable was followed by quality of care and frequency of annual leave denial, accounting for an additional 3.2% and 1.3%, respectively. The results of the final model are presented in Table 13.

Restructuring Satisfaction

The second level modelling examined the predictive power of reform impact variables, psychological contract violation, and correlates on

Table 13

Stepwise Multiple Regression on PCV, RS, and GJS

	Multiple *R*	Adj. R^2	R^2 change	*F* Value	*p*
Variable		**Contract Violation**			
Emotional Climate	.593	.348	.352	107.38	.000
Quality of Care	.619	.377	.032	61.29	.000
Annual Leave Denial	.630	.387	.013	42.94	.000
		Restructuring Satisfaction			
Practice-Related Issues	.656	.428	.431	167.15	.000
Emotional Climate	.701	.486	.060	106.07	.000
Quality of Care	.708	.494	.010	73.29	.000
		General Job Satisfaction			
Emotional Climate	.515	.262	.266	70.51	.000
Casual/Callback RNs	.563	.310	.052	45.11	.000
Contract Violation	.580	.326	.019	32.60	.000

Note. PCV = Psychological Contract Violation; RS = Restructuring Satisfaction; GJS = General Job Satisfaction.

restructuring satisfaction. Restructuring satisfaction depicted strong, positive correlations with all of the reform impact variables and psychological contract violation. Years of experience and most staffing adequacy variables, with the exception of perceived changes in the availability of RN staff prior to and post restructuring, were significantly associated with restructuring satisfaction.

During the first step of regression analysis, practice-related issues, emotional climate, and quality of care combined to explain 50.1% of the variance in restructuring satisfaction. Practice-related issues, emotional climate and quality of care accounted for 43.1%, 6%, and 1% of the variance, respectively. Safety concerns, importance of reforms, and standards of care failed to enter the regression equation. When psychological contract violation was added at the second step and the correlates at the third step, none of these variables entered the regression equation. The final model's results are summarized in Table 13.

General Job Satisfaction

The third level modelling considered the predictive power of reform impact variables, psychological contract violation, restructuring satisfaction, and correlates on general job satisfaction. All of the impact of reform variables, as well as psychological contract violation and restructuring satisfaction, depicted significant, positive correlations with job satisfaction. The staffing adequacy variables were also significantly correlated with general job satisfaction. Age

was the only personal characteristic that significantly influenced job satisfaction.

The first regression model revealed that two reform impact variables, emotional climate and importance of reforms, combined to explain 23.4% of the variance in job satisfaction. Emotional climate and importance of reforms accounted for 22% and 1.4% of the explained variance, respectively. Practice-related issues, safety concerns, standards of care, and quality of care failed to enter the equation.

When perceived contract violation was added at the second step, emotional climate, contract violation, and importance of reforms combined to explain 28.5% of the variance in job satisfaction. Emotional climate, contract violation, and importance of reforms accounted for 23%, 4.1%, and 1.4% of the explained variance, respectively.

Restructuring satisfaction was entered at the third step. Emotional climate, contract violation, and restructuring satisfaction combined to explain 29.3% of the variance in job satisfaction. Importance of reforms failed to enter the regression equation. Emotional climate, contract violation, and restructuring satisfaction accounted for 23%, 4.1%, and 2.2% of the variance, respectively.

The correlates were entered at the final step. Age failed to enter the regression equation. The only staffing adequacy variable to enter the equation was reliance on casual/call back RNs. As well, restructuring satisfaction was removed from the model. The final model revealed that emotional climate,

reliance on casual/call back RNs and contract violation combined to explain 33.7% of the variance in job satisfaction. Emotional climate entered the regression equation first, accounting for 26.6% of the variance. This variable was followed by reliance on casual/call back RNs and contract violation, accounting for an additional 5.2% and 1.9%, respectively (see Table 13).

Organizational Commitment

The fourth level modelling considered the predictive power of reform impact variables, psychological contract violation, restructuring satisfaction, general job satisfaction, and correlates on organizational commitment. Organizational commitment depicted moderate, positive relationships with the reform impact variables, psychological contract violation, restructuring satisfaction, and general job satisfaction. The only correlates which influenced commitment were age and years of work experience. Most of the staffing adequacy variables, with the exception of ordered back to work on days off, were also significantly correlated with commitment.

During the first step of regression analysis, emotional climate, practice-related issues, quality of care, importance of reforms, and standards of care combined to explain 41.5% of the variance in organizational commitment. Emotional climate and practice-related issues accounted for 28.6% and 6.6% of the explained variance, respectively. Quality of care, importance of reforms, and

standards of care contributed an additional 2.6%, 2.4%, and 1.3% to the explained variance, respectively. Safety concerns failed to enter the equation.

Psychological contract violation was added at the second step. Emotional climate and standards of care were removed, and contract violation surpassed practice-related issues in predictive power. Contract violation, practice-related issues, importance of reforms, and quality of care combined to explain 51.6 % of the variance in commitment, contributing 40.7%, 6%, 3.1%, and 1.8%, respectively.

When restructuring satisfaction was added at the third step, it failed to enter the regression equation. General job satisfaction was added at the fourth step. Contract violation, general job satisfaction, practice-related issues, importance of reforms, and quality of care combined to explain 57.4% of the variance in commitment, contributing 40.7%, 9.4%, 4.5%, 1.6%, and 1.2%, respectively.

When the correlates were added at the fifth step, the personal characteristics of age and years of experience failed to enter the regression equation. The only staffing adequacy variable to enter the equation was perceived adequacy. As well, standards of care re-entered the regression equation. The final model revealed that contract violation, general job satisfaction, practice-related issues, importance of reforms, quality of care, standards of care, and staffing adequacy combined to explain 60.8% of the

Table 14

Stepwise Multiple Regression on OC and IS

	Multiple *R*	Adj. R^2	R^2 Change	*F* Value	*p*
Variable		**Commitment**			
Contract Violation	.656	.427	.430	147.77	.000
Job Satisfaction	.724	.519	.094	107.29	.000
Practice-Related Issues	.751	.557	.040	83.59	.000
Importance of Reforms	.761	.570	.015	66.39	.000
Quality of Care	.767	.578	.009	54.91	.000
Standards of Care	.775	.587	.012	47.77	.000
Staffing Adequacy	.780	.594	.008	42.11	.000
		Intent to Stay			
Commitment	.496	.242	.246	66.47	.000
Position Tenure	.569	.317	.078	48.50	.000
Contract Violation	.593	.341	.028	36.43	.000
Employment Status	.613	.364	.025	30.28	.000
Safety Concerns	.623	.373	.013	25.42	.000

Note. OC = Organizational Commitment; IS = Intent to Stay.

variance in commitment, contributing 43%, 9.4%, 4%, 1.5% , .9%, 1.2%, and .8%, respectively. The best model for commitment is presented in Table 14.

Intent to Stay

The fifth level modelling considered the predictive power of reform impact variables, contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and correlates on intent to stay. Intent to stay depicted strong, positive correlations with most reform impact variables, with the exception of importance of reforms, as well as restructuring satisfaction, job satisfaction, contract violation, and organizational commitment. Several personal characteristics (i.e., work experience, employment status, position tenure, and age) were found to influence intentions. The only staffing issues variables that affected intent to stay were staffing adequacy and reliance on casual/callback RNs.

During the first step of regression analysis, emotional climate and safety concerns combined to explain 18.3% of the variance in intent to stay, contributing 14.8% and 3.5%, respectively. When perceived contract violation was added at the second step, emotional climate failed to enter the regression equation. Contract violation and safety concerns combined to explain 24.7% of the variance in intent to stay. Contract violation explained 21.1%, while safety concerns accounted for 3.6%.

Restructuring satisfaction was added at the third step, but failed to enter the regression equation. General job satisfaction was added at the fourth step. Contract violation, general job satisfaction and safety concerns combined to explain 27.6% of the variance in intent to stay. Contract violation explained 21.1% of the variance, while general job satisfaction and safety concerns accounted for 4.1% and 2.4%, respectively.

Commitment was entered at the fifth step and surpassed contract violation in predictive power. General job satisfaction was removed from the regression equation. Organizational commitment, contract violation, and safety concerns combined to explain 29.5% of the variance in intent to stay, contributing 24.1%, 3.5%, and 1.8%, respectively.

The correlates were entered at the sixth step. Only time in current position and employment status entered the regression equation. Organizational commitment, time in position, contract violation, employment status, and safety concerns combined to explain 38.9% of the explained variance in intent to stay, accounting for 24.6 %, 7.8%, 2.8%, 2.5%, and 1.3%, respectively. The results of the final model are summarized in Table 14.

Reliability and Validity of Study Instruments

The reliability and validity of the RIHCRS and PCV, RS, GJS, OCQ, and IS scales were also examined for the study population. Cronbach's alpha was

used to assess internal consistency. The intercorrelations among subscale and total scores assessed the construct validity of the RIHCRS.

RIHCRS

Within the current sample, the total instrument had an alpha coefficient of .89, indicating a high level of internal consistency. Alpha coefficients for the subscales ranged from .50 to .81: importance of reforms (.50), quality of care (.65), safety concerns (.66), standards of care (.75), practice-related issues (.77), and emotional climate (.81). These findings indicate that the total scale and the subscales have a fair to very good internal consistency.

Most of the intercorrelations among the subscales were statistically significant and within the moderate to strong range ($p < .001$) (see Table 15). The only exception was the low asssociation between the importance of reforms subscale and most other subscales. The findings suggest that the subscales are related and represent distinct dimensions of the impact of health care reforms (i.e., good discriminatory power). In summary, the intercorrelations among the subscales and the subscales to total scale suggest that the RIHCRS has good construct validity.

PCV, RS, GJS, OCQ, and IS Scales

Alpha coefficients were also generated for the scales measuring

Table 15

Correlations Among RIHCRS and Subscales

Variable	EC	PR	QC	SI	SC	RIHCR
Importance of Reforms (IR)	.31***	.29***	.15*	.22**	.25***	.48***
Emotional Climate (EC)		.44***	.50***	.53***	.64***	.84***
Practice-Related (PR)			.37***	.39***	.32***	.65***
Quality of Care (QC)				.66***	.63***	.75***
Safety Issues (SI)					.58***	.78***
Standards of Care (SC)						.79***

Note. RIHCRS = Revised Impact of Health Care Reform Scale.

*** $p < .001$

psychological contract violation (i.e., PCV scale), restructuring satisfaction (i.e., RS scale), general job satisfaction (i.e., GJS scale), organizational commitment (i.e., OCQ), and intent to stay (i.e., IS scale). The internal consistency for the PCV scale (α = .76), RS scale (α = .89), GJS scale (α = .80), OCQ (α = .91), and IS scale (α = .73) was quite strong in the current sample.

Summary

The acute care nurses in this study were generally negative about the overall impact of health care reforms five to six years post-implementation. Respondents were most negative about the emotional climate of the workplace and the quality of care present in their hospitals. The only aspect of reforms that merited positive ratings was their perceived importance. Several correlates (i.e., region of employment, employment status, work experience, annual sick leave, age, and staffing adequacy variables) were found to exert a significant, but minimal, effect on nurses' perceptions.

The findings also demonstrated that acute care nurses felt their organizations had violated implied psychological contracts made upon hiring, were generally dissatisfied with most aspects of restructuring, were neither totally satisfied nor dissatisfied with their jobs, had slightly low levels of commitment to their organizations, and were uncertain about whether they would stay with current employers. Most correlates had minimal effects on the work-

related variables (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, organizational commitment, and intent to stay). The correlates most likely to influence work-related variables included region of employment status, work experience, current position tenure, age, and staffing adequacy variables.

Most of the work-related variables, with the exception of intent to stay and importance of reforms, were significantly and positively related to the reform impact variables. Specifically, lesser likelihood of contract violation, higher levels of restructuring and general job satisfaction, greater organizational commitment, and greater intent to stay were associated with more positive perceptions of the importance of reforms, the emotional climate of the workplace, practice-related issues, quality of care, safety measures, and standards of care. As well, all of the work-related variables also depicted significant, positive relationships with each other.

Different combinations of reform impact variables and covariates emerged as significant predictors of psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment. For the most part, none of the correlates were observed to be high in predictive power. Two impact variables (i.e., emotional climate and quality of care) emerged as significant predictors of psychological contract violation, accounting for 38.4% of the total variance. One correlate (i.e., frequency of annual leave denial) contributed an

additional 1.3%. Three impact variables (i.e., practice-related issues, emotional climate, and quality of care) emerged as significant predictors of restructuring satisfaction, accounting for 50.1% of the explained variance. With regard to general job satisfaction, one impact variable (i.e., emotional climate) emerged as the most significant predictor, accounting for 26.6% of the explained variance. One correlate (i.e., reliance on casual/call back RNs) and one covariate (i.e., psychological contract violation) combined to contribute an additional 7.1% to the total explained variance.

Counter to expectations psychological contract violation emerged as the best predictor of organizational commitment, accounting for 43% of the explained variance. Job satisfaction accounted for a much smaller proportion of the variance (i.e., 9.4%). Four impact variables (i.e., practice-related issues, importance of reforms, quality of care, and standards of care) combined to contribute 7.6% to the explained variance. The correlates contribution to the model was limited to the .8% by the perceived adequacy of staffing variable. Consistent with expectations, organizational commitment emerged as the best predictor of turnover intentions, accounting for 24.6% of the explained variance. Comparatively, three impact variables (i.e., importance of reforms, emotional climate, and safety concerns) and two correlates (i.e., position tenure and employment status) accounted for an additional 7.8% and 9.4% of the variance in intent to stay over that explained by commitment.

CHAPTER 5

Discussion

The CMBI provided the framework for this study. The model proposes that determinants (i.e., perceptions of the impact of health care reforms or job-related and work environment factors), covariates or intermediate outcomes (i.e., intervening attitudes), and correlates (i.e., personal characteristics and staffing issues) exert a direct and indirect effect on behavioral intentions. The discussion of findings is presented according to the major components of the CMBI and the proposed relationships among them.

Determinants

One of the research questions investigated in this study focused on acute care nurses' perceptions of the overall impact of health care reforms. The determinants or impact areas selected for investigation included the importance of reforms, emotional climate of the workplace, practice-related issues, quality of care, safety concerns, and standards of care. In the current study, registered nurses, in general, had negative attitudes toward the overall impact of reforms. Nurses were most positive about the importance of reforms, safety measures, and practice-related issues. In contrast, the most negative ratings were given to the emotional climate of the workplace, quality of care, and standards of care. These findings on the most positive and negative areas of reform impact were

comparable to those reported by Way (1995), Pyne (1998), and Way and Gregory (2000).

In comparison to the 1995 baseline data (i.e., prior to re-engineering and early into regionalization) on registered nurses working in diverse clinical settings, the current study's findings provide evidence for a significant worsening of attitudes toward the impact of health care reforms (i.e., emotional climate, practice-related issues, quality of care, safety concerns, standards of care, and importance of reforms). Similar findings were reported by Way and Gregory (2000) six months previous to the current study. As well, Pyne (1998) reported comparable study findings for a convenience sample of acute care nurses one year post-regionalization and six months following introduction of program-based management and a professional practice model.

Several studies were identified from the literature which examined the impact of health care reforms on acute care nurses' perceptions of the emotional climate, practice-related issues, quality of care, safety concerns, standards of care, and the importance of reforms for nurses and consumers. Specifically, findings from studies by Armstrong-Stassen et al. (1996), Blythe et al. (2001), Corey-Lisle et al. (1999), Laschinger et al. (2001), and Woodward et al. (1999) generally support a decline in nurses' perceptions of the emotional climate of the workplace (e.g., frustration with reduced levels of care, jobs less satisfying and challenging, fragmented relations with co-workers, low morale and motivation,

decreased recognition/appreciation for work, increased stress, etc.). In contrast, other researchers found that health care reforms had minimal, no, or inconsistent effects on the emotional climate (Best et al., 1997; Hastings & Waltz, 1995; Seago, 1999; Westrope et al., 1995).

Study findings are also contradictory concerning the impact of health care reforms on practice-related issues (e.g., control over practice, autonomy, feelings of powerlessness, input into decision-making, continuing education or professional growth opportunities, etc.). Consistent with the current study's findings, several researchers (Aiken et al., 2000; Armstrong-Stassen et al., 1996; Blythe et al., 2001; Corey-Lisle et al., 1999; Krugman & Preheim, 1999; Laschinger et al., 2001; Woodward et al., 1999) found support for the negative impact of reforms on nursing practice. In contrast, other researchers found that health care reforms had minimal, no, or inconsistent effects (Anthony, 1999; Best et al., 1997; Effken & Stetler, 1997; Hastings & Waltz, 1995; Pillar & Jarjoura, 1999; Seago, 1999; Westrope et al., 1995).

In the current study, staff nurses rated the quality of care as being low in their institutions. The majority of studies conducted with acute care nurses have documented a general decline in perceptions about the overall quality of care present in hospitals. Several researchers have noted that nurses feel the negative impact of decreased staffing resources and available time for providing comfort and basic care, as well as dealing with psychosocial needs (Aiken et al.,

2000; Baumann et al., 2001; Blythe et al., 2001; Corey-Lisle et al., 1999; Laschinger et al., 2001; Maurier & Northcott, 2000; Shindul-Rothschild et al., 1996, 1997; Woodward et al., 1999). However, there are reports that health care reforms have had minimal to no impact on the quality of patient care (Effken & Stetler, 1997; Hastings & Waltz, 1995; Pillar & Jarjoura, 1999; Westrope et al., 1995).

Fewer studies have been conducted on the impact of reforms on acute care nurses' perceptions of safety measures (e.g., discharge preparation, community resources, competence with procedures, etc.) and standards of care (e.g., less ability to meet standards due to increased workload/responsibilities, increased patient acuity, etc.). Consistent with the current study's findings, research findings suggest that health care reforms have had a negative impact on nurses' perceptions of safety (Baumann et al., 2001; Blythe et al., 2001; Laschinger et al., 2001; Shindul-Rothschild et al., 1996) and care standards (Baumann et al.; Blythe et al.; Laschinger et al.; Maurier & Northcott, 2000; Shindul-Rothschild et al., 1996, 1997; Woodward et al., 1999).

In the current study, most respondents supported the importance of reforms (i.e., the value of reforms, greater consumer accountability/ responsibility, appreciated professional challenges, and empowered to be active participants). Consistent findings have been reported at various stages in the post-reform period in the province (Pyne, 1998; Way, 1994, 1995; Way &

Gregory, 2000). As well, positive aspects of reform (e.g., recognition of the intent and value of reforms, etc.) have been reported by other researchers (Best et al., 1997; Corey-Lisle et al., 1999; Hastings & Waltz, 1995).

Intermediate Outcomes and Behavioral Intentions

The current study examined acute care nurses' levels of psychological contract violation, restructuring satisfaction, general job satisfaction, organizational commitment, and intent to stay. As well, a focus of this study was to document regional differences in nurses' attitudes and behavioral intentions. The following discussion of study findings is organized according to each intermediate outcome and intent to stay.

Psychological Contract Violation

In the current study, most acute care nurses believed that psychological contracts with their organizations had been violated. Way and Gregory (2000) reported similar findings. The fact that comparable findings were obtained from two samples of nurses working in different settings (i.e., acute care settings in the current study vs. mixed settings in the 1999 study) reinforces the assertion that health care reforms may enhance perceptions of implied contract violation.

Although no additional studies were identified within the health care sector, the current study's findings, in general, support the conclusions of those

conducted within the business community. Robinson and Rousseau (1994) reported that 58.9% of their sample of MBA alumni graduates had experienced at least one instance of psychological contract violation by employers. Turnley and Feldman (1998) found that 25% of their sample of managers and executives employed in restructured organizations reported contract violation. Turnley and Feldman (1998, 1999) found that business managers in restructured corporations (i.e., layoffs, reorganizations, mergers, and acquisitions) were more likely to report implied contract violation than their counterparts working in more stable environments. In contrast, the current study's findings failed to demonstrate significant differences between nurses working in the St. John's region, where the most extensive reforms were implemented, and their counterparts working in other regions of the province.

In the current study, respondents were divided on how well health care organizations had fulfilled commitments made upon hiring or how frequently they had violated them. While one-half of respondents felt that the amount of rewards received was less than promised, the majority indicated that this amount was much lower than expectations. Similarly, other researchers (Robinson & Rousseau, 1994; Turnley & Feldman, 1998, 1999) have found support for greater perceived violations in relation to extrinsic rewards (e.g., base salary, overall benefits, regularity of pay increases, etc.).

Restructuring Satisfaction

In the current study, acute care nurses were generally dissatisfied with restructuring initiatives. No significant differences were observed between nurses working in the St. John's region and their counterparts working in other regions. Comparable findings were reported by Way and Gregory (2000).

Specifically, most nurses in the current study were dissatisfied with the visibility and accessibility of management since restructuring, the degree to which management sought input on professional care standards, and the amount of information/inservice provided to help prepare staff for restructuring related-changes. Similarly, other researchers have reported that nurses tend to find managers less visible and accessible since downsizing and restructuring (Blythe et al., 2001; Fletcher, 2001; Laschinger et al., 2001) and less supportive (Aiken et al., 2000; Armstrong-Stassen et al., 1996; Blythe et al.; Corey-Lisle et al., 1999; Fletcher; Laschinger et al.; Woodward et al., 1999). Other researchers also reported that nurses felt that they were not given adequate information on or support for system changes (Blythe et al.; Laschinger et al.).

In the current study, most respondents were also dissatisfied with the interdisciplinary approach to care and the time spent on interdisciplinary conflicts. Contrasting findings have been reported on the implications of reforms for interdisciplinary relations. Nurses' perceptions of increased strained relations with other health care providers, especially physicians, in acute care

settings following significant downsizing was reported by Aiken et al. (2000), Maurier and Northcott (2000), and Baumann et al. (2001). In contrast, Effken and Stetler (1997) and Bryan et al. (1998) found that interdisciplinary relations improved following the introduction of patient-centered programs in tertiary care centres.

Job Satisfaction

In the current study, acute care nurses were neither totally satisfied nor dissatisfied with their jobs. These findings are comparable to those reported by Way and Gregory (2000). According to the results of previous studies, the overall job satisfaction of nurses working in acute care settings can be quite variable, ranging from slightly dissatisfied (Johnston, 1997; Shader et al., 20001; Tumulty et al., 1994) to somewhat or slightly satisfied (Armstrong-Stassen et al., 1996; Fletcher, 2001; Hastings & Waltz, 1995; Kangas et al., 1999; Lucas et al., 1993; Morrison et al., 1997) to moderately satisfied (Boyle et al., 1999; Kennerly, 2000; Laschinger & Havens, 1996; Lum et al., 1998; Woodward et al., 2000).

Pyne (1998) examined the impact of reforms on the job satisfaction of acute care nurses employed in the St. John's region post-hospital redesign but prior to hospital closure and merger of services. Similar to the current study's findings, Pyne found that most respondents were neither totally satisfied nor dissatisfied with their jobs. It is also important to note that the current study's

findings revealed no significant differences between the job satisfaction levels of nurses working in St. John's region and their counterparts working in other regions with less extensive organizational restructuring and job re-design. Similarly, Kangas et al. (1999) found no significant difference between the job satisfaction levels of acute care nurses working in hospitals with a traditional organizational structure versus a shared governance model.

Conflicting findings have been reported on the impact of organizational restructuring and redesign on the job satisfaction of acute care nurses. Some researchers have found that health reforms have exerted a positive effect on nurses' overall job satisfaction (Bryan et al., 1998; Effken & Stetler, 1997; Fletcher, 2001; Laschinger & Havens, 1996; Westrope et al., 1995). Others have documented significant negative effects (Armstrong-Stassen et al., 1996; Pyne, 1998; Seago, 1999; Shader et al., 2001; Tumulty et al., 1994; Woodward et al., 2000), inconsistent effects over time (Best et al., 1997; Krugman & Preheim, 1999), or no effects at all (Hasting & Waltz, 1995; Kangas et al., 1999; Kennerly, 2000). It is important to note that meaningful cross-study comparisons were difficult due to the use of several different, but somewhat similar, instruments and the investigation of a multitude of job-related and work environment components of job satisfaction.

Organizational Commitment

In the current study, acute care nurses reported low levels of commitment to their organization. Although Way and Gregory (2000) also reported low levels, the nurses' commitment levels in the current study were significantly lower than those participating in the 1999 study. Conflicting findings have been reported in the literature on how committed acute care nurses are to their organizations. A few researchers have found slightly higher commitment levels for registered nurses (Boyle et al., 1999; Hastings & Waltz, 1995; Kennerly, 2000; Lum et al., 1998). In contrast, Laschinger et al. (2000) reported low levels of commitment.

Study findings have been inconsistent on the impact of organizational restructuring and redesign on the organizational commitment of acute care nurses. Blythe et al. (2001) reported that nurses harbored more hostile feelings towards employers, had become more distrustful of their organizations, could no longer give extra of themselves to the organization, and were re-evaluating their commitment to the organization. Laschinger et al. (2001) also reported decreased loyalty/commitment following restructuring. In contrast, other researchers found either a positive effect (Westrope et al., 1995) or little to no effect on nurses' commitment levels after system reform (Hastings & Waltz, 1995; Kennerly, 2000).

The current study's findings indicated that the commitment levels of

nurses working within the St. John's region were comparable to those working in other regions of the province. These findings are somewhat surprising given the the greater magnitude of restructuring initiatives in St. John's (e.g., closures, mergers, introduction of program-based management and professional practice models, etc.) and the substantial number of nurses transferring within and among the various sites of the HCCSJ (i.e., approximately 45%). In contrast, Baumann et al. (2001) found that nurses who had moved to a new hospital as a result of restructuring (i.e., downsizing, mergers, etc.) were significantly less committed than those who moved to a new unit or assumed a new role on the same unit within the same hospital.

Intent to Stay

The current study's findings indicated that acute care nurses were unsure about staying with current employers. These findings are consistent with the results reported by Way and Gregory (2000). While some researchers have reported that nurses tend to be uncertain about their future with current employers (Lucas et al., 1993; Laschinger et al., 2000), others have found that most nurses are slightly to moderately inclined to stay (Boyle et al., 1999; Hastings & Waltz, 1995; Lum et al., 1998).

Only a few studies were found that investigated nurses' intent to stay following organization change. Support for nurses' increased uncertainty about

staying or only being slightly inclined to stay following restructuring was provided by Laschinger et al. (2000) and Laschinger et al. (2001). However, Hastings and Waltz (1995) found that professional practice redesign had no significant effect on nurses' intent to leave.

In the current study, acute care nurses' working in the St. John's region did not differ from their counterparts working in other regions of the province on their likelihood of staying with current employers. Contrasting findings have been reported in the business sector. Turnley and Feldman (1998, 1999) found that employees working in organizations with extensive restructuring were more likely to consider leaving or to engage in job search activities than their counterparts working in more stable organizations.

Factors Influencing Intermediate Outcomes and Behavioral Intentions

The CMBI proposes that determinants, intermediate outcomes, and correlates exert a direct and indirect effect on behavioral intentions. It is further conjectured that causal, linear relationships exist among the intermediate variables which also mediate sequentially, in whole or in part, the effects of determinants on subsequent intervening variables and behavioral intentions. The following discussion is organized according to the various relationships described in the CMBI.

Determinants, Outcomes, and Intentions

One of the research questions for this study examined the effects of determinants on intermediate outcomes and behavioral intentions. The following discussion is structured around each intermediate outcome and intent to stay.

Psychological contract violation. In the current study, psychological contract violation depicted moderate to strong, positive relationships with overall reform impact and most subscale scores. One exception was the low, positive correlation between importance of reforms and contract violation. The findings suggest that acute care nurses with more positive perceptions about the importance of reforms, emotional climate of the workplace, practice-related issues, quality of care, safety measures, and standards of care were less likely to report psychological contract violations.

There were no comparable studies found in the health care literature that specifically explored the effect of reforms on acute care nurses' psychological contracts. However, Blythe et al. (2001) reported that the implied contracts of nurses working in tertiary care settings following major restructuring had been violated. The implication was that violations were consequential to increased feelings of powerlessness and a loss of trust in receiving organizational support. The current study's findings support the important effects of the emotional climate (i.e., supportive environment and extra efforts) and practice-related issues (i.e., feelings of having control) on psychological contract violation.

In addition, Robinson and Rousseau (1994) found that MBA alumni graduates, two years post-employment, were most likely to identify violations in areas specific to human resource management (e.g., training/development, compensation, promotion, job security, feedback, responsibility, etc.). Turnley and Feldman (1998, 1999) found that managers in restructured firms were more likely to identify violations in job security, degree of input into key decisions, advancement opportunities, compensation or benefits, and power and responsibility. Additionally, Turnley and Feldman (1999) found support for violations of training promises, job challenges and excitement, organizational and supervisory support. These findings support the direct influence of practice-related issues (i.e., control over practice, input into problem identification and resolution, and education opportunities) and the emotional climate (i.e., supportive environment and extra efforts, appreciation/recognition, and job satisfying/challenging) on psychological contract violation observed in the current study.

Restructuring satisfaction. This study's findings indicated that restructuring satisfaction depicted moderate to strong, positive relationships with the overall impact of reforms and most reform components. The one exception was the low, positive correlation between importance of reforms and restructuring satisfaction. The findings suggest that acute care nurses who have positive perceptions about the importance of reforms, emotional climate of the

workplace, practice-related issues, quality of care, safety measures, and standards of care tend to be significantly more satisfied with restructuring initiatives (i.e., managerial support and interdisciplinary relations).

A few studies were identified from the literature that supported the influence of health care reform on the restructuring satisfaction of acute care nurses. Most study findings suggest that system reforms have had negative repercussions on how satisfied nurses are with levels of managerial support (e.g., decline in support, lack of feedback and recognition, less communication, inadequate information about system changes, less input into practice, reduced visibility and accessibility, etc.) (Aiken et al., 2000; Blythe et al., 2001; Corey-Lisle et al., 1999; Fletcher, 2001; Laschinger et al., 2001; Shindul-Rothschild et al., 1997; Woodward et al., 2000). Some researchers (Corey-Lisle et al.; Laschinger et al.) have found support for a direct relationship between nurses' perceptions of the emotional climate (i.e., morale, frustration, stress, and recognition) and satisfaction with managerial support. There is also some support for a direct link between nurses' perceptions of practice-related issues (i.e., control over practice and input into problem identification and resolution) and satisfaction with managerial support (Blythe et al.; Corey-Lisle et al.; Laschinger et al., 2000; Morrison et al., 1997).

Job satisfaction. The current study's findings indicated that job satisfaction depicted moderate, positive relationships with the overall impact of

reforms. However, low, positive associations were the norm between job satisfaction and most reform components. The exceptions were the emotional climate and safety issues which depicted moderately, positive relationships. The findings suggest that acute care nurses who have positive perceptions about the importance of reforms, emotional climate of the workplace, practice-related issues, quality of care, safety measures, and standards of care have significantly higher levels of overall job satisfaction.

The significance of determinants (i.e., job-related and work-environment factors) for nurses' job satisfaction have been widely researched prior to and following health care reform. Studies conducted at various stages of the reform process support the important effects of the emotional climate of the workplace (e.g., professional opportunities, interpersonal relationships, supervisory and peer support, communication/interactions, organizational climate, supportive work environments, teamwork, etc.) on acute care nurses' overall job satisfaction (Armstrong-Stassen et al., 1996; Best et al., 1997; Brown et al., 1999; Cavanagh & Coffin, 1992; Fletcher, 2001; Hasting & Waltz, 1995; Johnston, 1997; Kangas et al., 1999; Lucas et al., 1993; McNeese-Smith, 1997, 1999; Pyne, 1998; Shader et al., 2001; Tovey & Adams, 1999; Westrope et al., 1995; Woodward et al., 2000). There is also support for the significant impact of practice-related issues (e.g., autonomy, job influence, decision latitude, control/responsibility, management style, etc.) on acute care nurses' job satisfaction (Best et al.;

Blegan, 1993; Brown et al.; Cavanagh & Coffin; Fletcher; Hastings & Waltz; Irvine & Evans, 1995; Laschinger & Havens, 1996; McNeese-Smith, 1997, 1999; Pyne; Tovey & Adams; Tumulty et al., 1994; Westrope et al.; Woodward et al.). Finally, there is support for the significant association between acute care nurses' job satisfaction and their perceptions of quality of care (Fletcher; Hastings & Waltz; Pyne), safety issues (Fletcher; McNeese-Smith, 1999; Pyne), and standards of care (Blythe et al., 2001; Pyne; Tovey & Adams).

Organizational commitment. In the current study, moderate to strong, positive relationships were observed between organizational commitment and the overall impact of reforms and all of the reform components. The findings suggest that acute care nurses who have positive perceptions about the importance of reforms, emotional climate of the workplace, practice-related issues, quality of care, safety measures, and standards of care tend to be significantly more committed to their organizations.

Several studies have also provided support for the linkage between select aspects of the emotional climate of the workplace (e.g., job involvement, stress, manager and peer support, open communication, constructive organizational climate, group cohesion, work motivation, etc.) and acute care nurses' organizational commitment (Blythe et al., 2001; Ingersoll et al., 2000; McNeese-Smith, 1997; Mueller & Price, 1990; Westrope et al., 1995). Other researchers have found support for the positive effects of practice-related issues (e.g.,

control, decision latitude, empowerment, etc.) on acute care nurses' commitment levels (Laschinger, 2000; McDermott et al., 1996; McNeese-Smith; Westrope et al.; Wilson & Laschinger, 1994).

Intent to stay. The current study's findings revealed low to moderate, positive relationships between intent to stay and overall reform impact and most of its components, with the exception of the non-significant effect for importance of reforms. These findings suggest that acute care nurses with more positive perceptions of the emotional climate of the workplace, practice-related issues, quality of care, safety measures, and standards of care were more likely to stay with their present employers.

A few studies were identified from the literature that provided support for the relationship between job-related and work environment factors and acute care nurses' intent to stay with current employers. Hastings and Waltz (1995) reported that satisfaction with control/responsibility, praise/recognition, nurse-patient ratio, scheduling, peer and managerial support, and ability to give high quality of care were significant correlates of nurses' intent to stay. Boyle et al. (1999) found that situational stress, distributive justice, promotional opportunities, control over nursing practice, and opportunities elsewhere contributed the most to intent to stay. Other authors also identified a relationship between intent to stay and group cohesion (Cavanagh & Coffin, 1992; Lucas et al., 1993; Shader et al., 2001), job stress (Shader et al.), and

autonomy and control over practice (Fisher et al., 1994).

Interactive Effects

The CMBI proposes that intermediate outcomes (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, organizational commitment) have a direct and indirect effect on each other. Likewise, intermediate outcomes are believed to have a direct and indirect effect on behavioral intention (i.e., intent to stay). In the current study, moderate to strong, positive relationships were observed among all intermediate outcomes, and between intermediate outcomes and behavioral intentions.

The findings suggest that lower levels of psychological contract violation are significantly associated with greater restructuring satisfaction and general job satisfaction, higher levels of organizational commitment, and greater likelihood of staying with current employers. Although no comparable studies were found in the health care literature, similar findings were reported in the business literature. Robinson and Rousseau (1994) and Turnley and Feldman (1998, 1999) reported that lower levels of psychological contract violation were strongly associated with a greater intent to stay. As well, lower levels of contract violations were found to be significantly correlated with greater job and organizational satisfaction (Robinson & Rousseau) and greater organizational loyalty (Turnley & Feldman).

The current study's findings also suggest that greater restructuring satisfaction is significantly correlated with greater job satisfaction, greater organizational commitment, and a greater intent to stay. Similar findings have been reported on the positive effects of managerial leadership style and support (Brown et al., 1999; Fletcher, 2001; Hastings & Waltz, 1995; McNeese-Smith, 1997; Morrison et al., 1997; Tovey & Adams, 1999; Woodward et al., 2000), as well as team work (Brown et al.; Tovey & Adams; Shader et al., 2001; Woodward et al.), on the job satisfaction of nurses working in acute care. There is also support for the positive effects of managerial leadership style and support on acute care nurses' organizational commitment (Corser, 1998; Ingersoll et al., 2000; Laschinger et al., 2000; McDermott et al., 1996; McNeese-Smith; Wilson & Laschinger, 1994) and intent to stay (Boyle et al., 1999; Fisher et al., 1994; Laschinger et al.). Support for the effects of greater group cohesion on intent to stay is also provided by Lucas et al. (1993) and Shader et al.

The current study's findings also indicate that greater job satisfaction is significantly associated with greater organizational commitment and a greater likelihood of staying with current employers. The moderate to strong positive effect of job satisfaction on commitment is consistent with research findings, in general (Corser, 1998; Mathieu & Zajac, 1990), and those specific to acute care nurses (Blegan, 1993; Hastings & Waltz, 1995; Kroposki et al., 1999; Shader et al., 2001; Westrope et al., 1995). The significant positive effect of job

satisfaction on the intent to stay of acute care nurses, albeit to a much lesser degree, is also supported in the research literature (Boyle et al., 1999; Cavanagh & Coffin, 1992; Hastings & Waltz; Irvine & Evans, 1995; Lucas et al., 1993; Lum et al., 1998; Shader et al.).

The current study's findings on the direct, positive relationship between organizational commitment and intent to stay provides support for one of the major premises of the CMBI. Empirical support for the positive relationship between organizational commitment and intent to stay is limited (Meyer & Allen, 1997; Mathieu and Zajac ,1990), especially in samples of acute care nurses (i.e., Lum et al. 1998; Mueller & Price, 1990; Somers, 1995).

Correlates, Intermediate Outcomes, and Behavioral Intentions

An important focus of this study was to investigate the effects of correlates (i.e., personal characteristics and staffing issues) on intermediate outcomes and behavioural intentions. Consistent with previous findings, most personal characteristics and staffing issues had minimal to no effect on outcomes. Several personal characteristics (i.e., employment status, work experience, current position tenure, and age) were found to exert variant effects on attitudinal and behavioural outcome. These variant effects were also observed for the staffing adequacy variables. The discussion is divided according to intermediate outcomes and behavioral intentions.

Intermediate outcomes. With regard to intermediate outcomes, the effects of personal characteristics were restricted to work experience and age. Work experience was the only variable observed to influence psychological contract violation and restructuring satisfaction. Specifically, nurses with 5 to 9 years experience were more likely to report implied contract violations than those with less than 5 years and greater than 20 years work experience. In contrast, nurses with less than 5 years work experience were more satisfied with restructuring initiatives than those with 10 to 20 years work experience. No significant effects were found for employment status, current position tenure, education level, or age. No comparable studies with acute care nurses were identified in the literature that examined the effects of these correlates on psychological contract violation or restructuring satisfaction. However, Turnley and Feldman (1999) failed to find support for variations in psychological contract violations in terms of the age, gender, or organizational tenure of business managers and executives.

The only personal characteristic found to influence general job satisfaction was age. Older nurses tended to be more satisfied with their jobs than younger nurses. No significant effects were found for employment status, current position tenure, years experience, or education level. Besides the meta-analytic studies by Blegen (1993) and Irvine and Evans (1995), only Kangas et al. (1999) and Pyne (1998) found age to have a significant positive affect on job

satisfaction. Hastings and Waltz (1995), Laschinger et al. (2000), Lucas et al. (1993), and Lum et al. (1998) failed to document a significant affect for age. Inconsistent findings have been reported also on the association between job satisfaction and such correlates as work experience (Blegen; Irvine & Evans; Laschinger et al.; Lucas et al.; Lum et al.; Pyne), organizational tenure (Hastings & Waltz; Irvine & Evans), and education level (Blegen; Hastings & Waltz; Irvine & Evans; Laschinger et al.; Lucas et al.; Lum et al.; Pyne; Tumulty et al., 1994; Woodward et al., 2000), among others.

Study findings also revealed that nurses with 5 to 19 years of work experience had lower levels of organizational commitment than those with less than 5 years or greater than 20 years experience. As well, older nurses tended to be more committed to their organizations than younger nurses. No significant effects were found for employment status, current position tenure, or education level. Inconsistent findings are reported in the literature on the moderating effects of personal characteristics on acute care nurses' organizational commitment. Similar to the current study's findings, Wilson and Laschinger (1994) found that older nurses with more years of experience had greater organizational commitment. In contrast, Laschinger et al. (2000) found no significant effect for age and work experience. Laschinger et al. also failed to find significant effects for gender and education level. Using path analysis to assess the interactions among intervening variables and correlates and their

combined effects on turnover intentions, Lum et al. (1998) found little or no effects for employment status, gender, marital status, age, years experience, or education levels. Although no meta-analytic studies were identified that used samples of nurses, Mathieu and Zajac (1990) found a moderate positive corrected correlation between attitudinal commitment and age. Mathieu and Zajac also found small negative effects for gender and education (i.e., males and higher educated, less committed), and low, positive effects for job level, marital status, and organizational and current position tenure (i.e., managers, married, and longer tenured were more committed).

The staffing issue variables were found to exert a significant but low effect on most intermediate outcomes. Specifically, greater perceived staffing adequacy for meeting patient care needs was significantly correlated with lower levels of contract violation, greater satisfaction with restructuring initiatives, greater overall job satisfaction, and greater organizational commitment. Greater perceived availability of RN staff post-restructuring was significantly correlated with greater satisfaction with restructuring initiatives and greater overall job satisfaction. In contrast, greater reliance on casual RNs and/or call backs to ensure adequate staff/patient ratios was significantly correlated with higher levels of contract violation, less satisfaction with restructuring, less overall job satisfaction, and less organizational commitment. As well, a greater frequency of being ordered back to work on days off was significantly associated with

higher levels of contract violation, less satisfaction with restructuring, and less overall job satisfaction. Finally, a greater tendency to have annual leave requests denied and to miss nutrition breaks were significantly correlated with higher levels of contract violation, less satisfaction with restructuring, less overall job satisfaction, and less organizational commitment.

There were no studies identified from the literature that investigated the effect of staffing issues on acute care nurses' psychological contract violation, restructuring satisfaction, or organizational commitment. Limited consideration has also been given to the impact of these variables on general job satisfaction. Similar to the current study's findings, Hastings and Waltz (1995) and Tovey and Adams (1999) found that higher levels of satisfaction were associated with greater perceived adequacy of nurse-patient ratios. As well, Corey-Lisle et al. (1999) reported that staff reductions post-restructuring had negative implications for nurses' job satisfaction.

Behavioral intentions. Select correlates were also observed to influence intent to stay. Specifically, nurses who were older and working full-time, with 10 or more years of work experience, and in current positions for 10 years or more were more likely to intend to stay with current employers than those who were younger and working part-time, with 5 to 9 years of work experience, and in current positions for less than 10 years. There is limited research exploring the effects of correlates on intent to stay or leave. The

findings from studies of acute care nurses are often contradictory on the effects of age and years experience (Boyle et al., 1999; Hastings & Waltz, 1995; Lucas et al., 1993), education (Boyle et al.; Cavanagh & Coffin, 1992; Lucas et al.; Lum et al., 1998), and unit and organizational tenure (Boyle et al., 1999; Fisher et al., 1994; Hastings & Waltz, 1995; Lum et al., 1998).

With regard to staffing issues, greater perceived staffing adequacy for meeting patient care needs and less reliance on casual RNs and/or call backs to ensure adequate staff/patient ratios were significantly correlated with a greater likelihood of staying with current employers. There were no comparable studies found in the literature that examined the effect of staffing issues on acute care nurses' intent to stay.

Predictors of Intermediate Outcomes and Behavioral Intentions

One of the research questions for this study was to determine the best predictors of intermediate outcomes and behavioral intentions. The following discussion is organized according to relevant intermediate outcomes and intent to stay.

Psychological Contract Violation

The CMBI proposes that the determinants (i.e., job-related and work environment factors) most affected by health care reforms have a direct impact

upon implied contract violations. Furthermore, it was postulated that the effects of personal characteristics and staffing issues would be minimal.

Two determinants (i.e., more positive perceptions of the emotional climate of the workplace and quality of care) and one staffing variable (i.e., lower frequency of annual leave denials) emerged as significant predictors of psychological contract violation (i.e., 39.7% of the explained variance). These findings provide partial support for the influence of determinants and staffing issues on implied contract violations. However, there was no support for the effects of personal characteristics.

Emotional climate surfaced as the best predictor (i.e., 35.2% of explained variance), followed by quality of care (i.e., 3.2%). These findings imply that when acute care nurses have more positive perceptions of the emotional climate (e.g., supportive environment, appreciation/ recognition, morale, job satisfying/ challenging, etc.) and quality of care (i.e., reasonable access to services, and adequate resources to ensure comfort and to meet basic care and psychosocial needs), there is a lesser tendency to believe that employers have violated psychological contracts. A lower frequency of annual leave denials (i.e., 1.3%) was also predictive of lower levels of perceived contract violation. There were no studies identified that examined the predictive effects of determinants and correlates on implied contract violations in either the health care or business literature. However, Turnley and Feldman (1998) reported that managers in

restructured firms with greater co-worker and supervisor supports were less likely to feel that their psychological contracts had been violated.

Restructuring Satisfaction

The CMBI postulated that determinants (i.e., job-related and work environment factors) would exert a direct effect on restructuring satisfaction (i.e., managerial support and interdisciplinary relations). In addition, it was conjectured that determinants would exert an indirect effect through the mediating or intervening variable of psychological contract violation. Finally, it was proposed that the correlates (i.e., personal characteristics and staffing issues) would only minimally influence restructuring satisfaction.

Study findings revealed that practice-related issues (i.e., control over practice, input into decision making, and continuing education opportunities) emerged as the best predictor (i.e., 43.1% of the explained variance), followed by quality of care and safety issues (6% and 1%, respectively). These findings provide partial support for the direct effect of determinants on restructuring satisfaction. Counter to model projections, psychological contract violation and correlates were not found to be significant predictors of restructuring satisfaction. No studies were identified from the literature that explored the predictive power of job-related and work environment factors, psychological contract violation, personal characteristics, or staffing issues on the restructuring

satisfaction of acute care nurses.

General Job Satisfaction

It was also conjectured that determinants (i.e., job-related and work environment factors) would have a direct influence on general job satisfaction, as well as an indirect influence through psychological contract violation and restructuring satisfaction. The CMBI presents restructuring satisfaction as a significant intervening variable between determinants, psychological contract violation, and job satisfaction. The current study's findings provided partial support for this causal process. In general, the predictive abilities of study variables were not as useful as expected (i.e., only accounted for 32.7% of the explained variance in job satisfaction).

In the current study, one of the determinants (i.e., emotional climate of the workplace) emerged as the best predictor of job satisfaction (i.e., accounting for 26.6% of the explained variance). There is considerable empirical evidence supporting the predictive significance of the emotional climate (e.g., group cohesion, interpersonal relations, powerlessness/empowerment, supportive work culture, teamwork, etc.) for acute care nurses' job satisfaction (Brown et al., 1999; Hastings & Waltz, 1995; Kangas et al., 1999; Laschinger & Havens, 1996; Lucas et al., 1993; Morrison et al., 1997; Pyne, 1998; Woodward et al., 2000).

The current study's findings support the direct, but limited, effects of

psychological contract violation (i.e., 1.9% of the explained variance) on job satisfaction. Counter to model predictions contract violation did not mediate the impact of determinants on general job satisfaction. Although Robinson and Rousseau (1994) reported that implied contract violations depicted a strong negative association with job satisfaction, the authors did not investigate their predictive value.

As well, restructuring satisfaction not only failed to perform a mediating role but also did not enter the regression equation. The non-significant impact of restructuring satisfaction (i.e., managerial support and interdisciplinary relations) is noteworthy. Several researchers have documented the predictive significance of managerial support (i.e., leadership style, supervisory support, communication /interactions, visibility/accessibility, etc.) for acute care nurses' overall job satisfaction (Brown et al., 1999; Hastings & Waltz, 1995; Kangas et al., 1999; Morrison et al., 1997; Woodward et al., 2000). No studies were identified that examined the predictive role of interdisciplinary relations (i.e., approach to care and time spent on conflicts) for nurses' job satisfaction.

Although personal characteristics were not useful predictors, there was partial support for the direct effects of staffing issues (i.e., increased reliance on casual RNs/callbacks added 5.2% to the explained variance). Inconsistent findings have been reported on the predictive power of personal characteristics for job satisfaction (Brown et al., 1999; Hastings & Waltz, 1995; Laschinger et

al., 2000; Lucas et al., 1993; Lum et al., 1998; Pyne, 1998; Woodward et al., 2000). No studies were identified that investigated the predictive effects of staffing issues.

Organizational Commitment

It was postulated that the determinants (i.e., job-related and work environment factors) would have a direct effect on organizational commitment, as well as an indirect effect through job satisfaction. The causal sequencing in this model depicts job satisfaction as a significant intervening variable between the determinants, psychological contract violation, restructuring satisfaction, and organizational commitment. The current study's findings provided partial support for this causal process.

Study findings provided partial support for the effects of determinants on organizational commitment. During the first step of regression analysis, most reform impact variables (i.e., emotional climate, practice-related issues, quality of care, importance of reforms, and standards of care, respectively) combined to explain 41.5% of the explained variance in commitment. As predicted, when psychological contract violation was entered, it accounted for most of the explained variance, while emotional climate and standards of care were removed. Counter to expectations restructuring satisfaction failed to enter the regression equation and job satisfaction assumed a secondary role to contract

violation. At the final step (i.e., entry of correlates), staffing adequacy was added and standards of care re-entered the regression equation.

Overall, determinants, intervening attitudes, and staffing adequacy combined to explain 60.8% of the variance in acute care nurses' organizational commitment. Significantly, the total contributions of determinants was reduced at each step (i.e., 3.6% at final step). As the best predictors in the regression equation, the intervening attitudes of psychological contract violation and job satisfaction accounted for 43% and 9.4% of the explained variance, respectively. Although no comparable studies were identified in the health care literature, Turnley and Feldman (1999) found that higher levels of psychological contract violation were significant predictors of lower levels of organizational loyalty for business managers and executives.

Only a couple of studies (i.e., Ingersoll et al., 2000; Laschinger et al., 2000) were identified that examined the predictive power of determinants following reforms in the acute care sector. Ingersoll et al. reported that greater perceived organizational readiness for change and a dominant constructive organizational culture (i.e., empowering climate) emerged as significant predictors of greater commitment. Similarly, Laschinger et al. found that greater access to empowerment structures and higher levels of interpersonal trust (i.e., faith and confidence in peers and managers) had a direct effect on higher levels of affective commitment. As well, access to empowerment had an indirect affect

on commitment through interpersonal trust. These findings support the predictive power of the emotional climate of the workplace (e.g., management and peer support, open communication, constructive organizational climate, etc.) and practice-related issues (e.g., control/empowerment, input into decision-making, etc.) for acute care nurses' commitment levels. No studies were identified that investigated the predictive role of perceived quality of care, standards of care, or the importance of reforms for nurses' commitment levels.

As well, findings from studies designed to test causal models of nursing turnover behavior support the strong direct effects of job satisfaction on organizational commitment (e.g., Mowday et al., 1982; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). These authors also found limited support for the predictive influence of personal characteristics on commitment levels. Similar findings were reported by Laschinger et al. (2000). No studies were identified that investigated the predictive role of staffing issue variables.

Intent to Stay

The CMBI postulates that determinants would exert a direct effect on intent to stay, as well as an indirect effect through intervening attitudes. According to the causal process of the CMBI, organizational commitment is identified as the most significant intervening variable between determinants, psychological contract violation, restructuring satisfaction, job satisfaction, and

intent to stay. Study findings provided partial support for the CMBI.

During the first step of regression analysis, two reform impact variables (i.e., emotional climate and safety concerns) combined to explain 18.3% of the explained variance. As predicted, when psychological contract violation was entered, it accounted for most of the explained variance, while emotional climate was removed. Counter to expectations restructuring satisfaction failed to enter the regression equation and job satisfaction assumed a secondary role to contract violation. When commitment was entered, it became the dominant predictor and job satisfaction was removed. Finally, with the addition of the correlates, position tenure and employment status entered the regression equation.

In the final regression model, determinants, intervening attitudes, and correlates combined to explain 38.9% of the variance in acute care nurses' job satisfaction. Significantly, the total contributions of determinants was reduced at each step (i.e., 1.3% for safety concerns). The intervening attitudes of commitment and psychological contract violation accounted for 24.6% and 2.8% of the explained variance, respectively. Position tenure and employment status contributed 7.8% and 2.5% to the explained variance, respectively.

Several studies investigated the predictive power of determinants for acute care nurses' intent to stay with current employers. There is considerable evidence supporting the indirect effects of determinants (e.g., group cohesion,

stress, interpersonal relations, routine, role overload, pay, autonomy, leadership style, etc.) on nurses' turnover intentions through job satisfaction (e.g., Boyle et al., 1999; Cavanagh & Coffin, 1992; Lucas et al., 1993; Lum et al., 1998; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). As well, a few studies support the mediating influence of organizational commitment (e.g., Lum et al., 1998; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). There is also support for the direct effects of some of these factors (e.g., group cohesion, stress, pay, leadership style, etc.) on nurses' turnover intentions (e.g., Boyle et al.; Cavanagh & Coffin; Lucas et al.; Lum et al.; Shader et al., 2001). No studies were identified that examined the mediating role of implied contract violations or restructuring satisfaction.

No comparable studies were identified in the health care literature that explored the direct relationship between psychological contract violation and intent to stay. However, there is some support from the business sector for the positive and direct effect of implied contract violation on anticipated turnover (Robinson & Rousseau, 1994; Turnley & Feldman, 1999). None of these authors examined the interactive effects of determinants, contract violation, job satisfaction, and organizational commitment on turnover intentions.

As well, only a few studies examined the predictive power of restructuring satisfaction on nurses' turnover intentions. The predictive significance of satisfaction with managerial support for the anticipated turnover of acute care

nurses is supported by Fisher et al. (1994) and Laschinger et al. (2000). Similar to the current study's findings, Boyle et al. (1999) failed to find support for the predictive effects of satisfaction with management.

In support of the current study's findings, empirical testing of causal models of nursing turnover behavior demonstrated the strong effects of commitment on intent to stay/leave (e.g., Curry et al., 1985; Lum et al., 1998; Meyer & Allen, 1997; Mueller & Price, 1990; Parasuraman, 1989; Price & Mueller, 1986). However, study findings are inconsistent concerning the effects of job satisfaction and commitment on behavioral intentions. Some researchers (e.g., Lum et al.; Mueller & Price) found that job satisfaction only affected turnover intent indirectly through organizational commitment, while others (e.g., Boyle et al., 1999; Curry et al.; Parasuraman) documented a direct effect. When the predictive effects of job satisfaction were examined independently of commitment, job satisfaction often surfaced as the most significant predictor of intent to stay (Cavanagh & Coffin, 1992; Lucas et al., 1993; Shader et al., 2001).

Finally, there is conflicting evidence on the significance of correlates for predicting nurses' turnover intentions. For example, the evidence is contradictory on the influence of such correlates as age, years experience, and educational level (e.g., Boyle et al., 1999; Hastings & Waltz, 1995; Laschinger et al., 2000; Lucas et al., 1993; Lum et al., 1998). In contrast to the current study's findings, Boyle et al. and Fisher et al. (1994) failed to find support for the

predictive power of position tenure on acute care nurses' intent to stay.

Implications of Findings for the CMBI

The current study's findings provided partial support for the major premises of the CMBI. Overall, the findings support the premise that acute care nurses' behavioral intentions are influenced by the separate and interactive effects of determinants (i.e., job-related and work environment factors), intermediate outcomes (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment), and correlates (i.e., personal characteristics and staffing issues).

This study provided partial support for the effect of select determinants (i.e., importance of reforms, emotional climate, practice-related issues, quality of care, safety concerns, and standards of care) on intermediate outcomes and behavioral intentions. Emotional climate of the workplace emerged as the most significant and consistent determinant influencing intermediate outcomes and behavioral intentions.

The CMBI postulated that intermediate outcomes would exert a separate and interactive effect on each other, as well as on behavioral intentions. According to this assumption, each successive attitude (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment) would function as a mediator for the one preceding it. This

assumption was only partially supported by the current study findings. As predicted, job satisfaction mediated the effect of restructuring satisfaction, while organizational commitment mediated the effect of both restructuring satisfaction and job satisfaction on behavioral intentions. However, the effects of psychological contract violation on intent to stay was not affected by job satisfaction or restructuring satisfaction.

Study findings also provided partial support for the causal, linear sequencing postulated by the CMBI. This model proposes that intermediate outcomes would have a greater influence on behavioral intentions than determinants and correlates. Counter to model projections, certain determinants (i.e., safety concerns) and personal characteristics (i.e., position tenure and employment status) were better predictors of intent to stay than some intermediate outcomes (i.e., restructuring satisfaction and job satisfaction).

As predicted by the CMBI, study findings confirmed that organizational commitment is the best predictor of behavioral intentions. These findings are comparable to those reported by Mueller and Price (1990), Parasuraman (1989), and Price and Mueller (1981, 1986). In contrast, the findings provided only partial support for the role of commitment as a key intervening variable between determinants (i.e., perception of reform and safety concerns), intermediate outcomes (i.e, psychological contract violation), and behavioral intentions.

Finally, study findings provided partial support for the CMBI premise that

correlates (i.e., personal characteristics and staffing issues) significantly influence intermediate outcomes and behavioral intentions. The findings indicated that position tenure and employment status were key predictors of acute care nurses' behavioral intentions. However, the predictive power of these correlates was minimal (i.e., 9.6% of the explained variance). Personal characteristics did not exert an effect on the intermediate outcomes, however, two staffing issues were found to minimally affect psychological contract violation (i.e., annual leave denial) and general job satisfaction (i.e., casual RNs/callbacks). Comparative findings regarding the minimal influence of personal characteristics on attitudes and behavioral intentions were identified in the literature (Mueller & Price, 1990; Turnley & Feldman, 1998, 1999).

Summary

A major focus of the current study was the investigation of acute care nurses' perceptions of the impact of health care forms and their work-related attitudes and behavioral intentions. A second focus of this study was to examine the predictive power of select factors for intermediate outcomes and behavioral intentions. The CMBI provided the conceptual framework for the study.

In general, the current study's findings on acute care nurses' perceptions of the impact of reforms and their levels of restructuring satisfaction, job satisfaction, organizational commitment, and turnover intent were supported by

study findings in the literature. Despite the absence of information on the implications of psychological contract violation for acute care nurses, there is support for the current study's findings in the business literature.

The current study's findings also provided partial support for the major assumptions of the CMBI. Specifically, behavioral intentions were influenced by the complex interactions among determinants (i.e., perceived impact of health care reforms), intermediate outcomes (i.e., psychological contract violation, restructuring satisfaction, job satisfaction, and organizational commitment), and correlates (i.e., personal characteristics and staffing issues). Counter to model projections, study findings did not always support the proposed causal, linear sequencing of individual variables. Significantly, not all of the intermediate outcomes mediated the effects of determinants and preceding attitudes states. For example, some determinants (i.e., practice-related issues, emotional climate, and quality of care) were found to have greater predictive power than certain attitudes (i.e., contract violations, restructuring satisfaction, and job satisfaction). This situation was also observed for certain correlates (i.e., position tenure, employment status, and casual RNs/callbacks). These findings emphasize the need for further testing of the CMBI in similar and variant populations.

Chapter 6

Limitations and Implications

This chapter summarizes the limitations of study findings and discusses the implications for nursing practice, education and research.

Limitations

Despite the reliance on proportional stratified random sampling, the low response rate of 34.1% significantly compromises the representativeness of study findings. As well, the use of self-report measures may have reduced the reliability of the data by introducing the potential for response bias. The absence of researcher control over the conditions under which the respondents completed the questionnaire also limits the reliability of the data. Respondents may have taken the opportunity to confer with other colleagues and as well, individual interpretation of scale items may contribute to variation in responses. These factors significantly limit the generalizability of study findings to all acute care nurses.

Implications

Study findings have important implications for practice, education and research. The implications for each of these domains are presented separately in the following discussion.

Nursing Practice

The current study's findings on acute care nurses' perceptions of health care reforms (i.e, importance of reforms, emotional climate of the workplace, practice-related issues, quality of care, safety issues, and standards of care) were similar to those from previous studies conducted in Newfoundland and Labrador. There has been consistent support for acute care nurses' dissatisfaction with many aspects of the job and work environment. One point of concern is that their attitudes toward reforms have actually worsened over time.

Study findings suggest that the current sample of acute care nurses were concerned about the limited communication of system changes from administration. As well, sample nurses were dissatisfied with their limited involvement in decision-making at the program/unit and organizational level prior to and during change. During all stages of restructuring/downsizing, it is important that an organization's communication plan focus on informing and educating nurses about proposed changes and collecting information on any potential or actual impacts on the practice environment. Information sharing and involvement in decision-making may be accomplished by both formal and informal measures (e.g., education sessions for nursing staff, hospital bulletins, newsletters or electronic e-mail, open forums, unit or departmental meetings, focus groups, etc.). Nurses must be clear about the objectives of redesign strategies, their role during and following change, and receive constant

reinforcement on their value to the team and the organization. Violations of psychological contracts may be moderated by involving staff in decision-making and communicating to staff on a timely basis on how changes may impact their personal and professional lives.

Despite the extensive efforts directed toward decentralizing decision-making and redesigning work environments, a number of challenges remain that could potentially undermine any short- or long-term benefits. To date, there has been wide-spread dissemination (e.g., professional association and union, registered nurses, Department of Health and Community Services, institutional boards, public forums, hospital management teams, etc.) of study findings. Thus, all stakeholders are acutely aware of how nurses are perceiving system changes and their predominately negative attitudes toward the job, management and collaborative practice, and the organization. The institutional boards must devote the time, effort, and resources to address the job-related and work environment issues most negatively affected by health care reforms.

Constructive organizational cultures, effective work relations, and meaningful participation in decision-making are not only deemed essential for high quality care and acceptable standards but also play a pivotal role in enhancing nurses' job satisfaction, organizational commitment, and intent to stay. Individual institutions comprising each of the institutional boards should implement key strategies to enhance the emotional climate, greater control over

nursing practice, and feeling a valued member of the organization. Among the most important strategies would be effective team building processes to improve staff cohesiveness, initiatives to enhance staff recognition and appreciation (e.g., articles in hospital newsletters/bulletins, individual and team awards, in-house publication of complimentary letters from clients, individual praise, etc.), and open channels of communication between managers and staff.

Team building is a frequently articulated concept in the nursing literature, but very few managers or staff nurses are knowledgeable or proficient in operationalizing this process. Education sessions and discussion groups facilitated by "experts in the field" would help managers and nursing staff function as a cohesive group proficient in problem solving and strategic planning at both the unit and organizational level. Managers must also adopt a leadership style that promotes supportive work environments and positive working relations among team members. Equally important, nurses must develop a clear understanding of the issues, as well as available personal and organizational resources, within the workplace and assume some responsibility for improving the work environment (e.g., relations with co-workers and other providers, supporting co-workers, etc.). Unless all levels of workers cooperate and integrate their efforts, meaningful change will be difficult on these important issues.

An interesting study finding was that most acute care nurses felt that

system changes had not provided them with an opportunity to have more control over their practice. This is somewhat surprising given the implementation of a professional practice model for nursing in the St. John's region, the largest employer of nurses in the province. It could be that the pervasive changes in and the downsizing of the managerial structure following the introduction of program-based management, as well as institutional mergers and closures, created significant resistance to shifts in power and control. It is obvious that both managers and nurses must reassess the effectiveness of existing strategies (e.g., representation on committees responsible for policy/procedure development and other practice-related activities, timely dissemination of all information, communication channels to provide feedback on practice issues, etc.) and build upon those that promote greater feelings of control. It is also important that staff nurses assume some responsibility for enhancing their own autonomy (e.g., becoming actively involved in committees, encouraging co-workers to voice their opinions about decisions affecting their practice, providing feedback to managers about practice issues or concerns, etc.).

Study findings also highlighted nurses' concerns with the quality and standards of care present in the institutions. A fundamental issue is not only having adequate staff numbers but also an appropriate skill mix. It is important that managers have access to valid and reliable workload measurement systems to help them accurately quantify the nursing care hours required to provide

quality patient care (i.e., basic care, comfort, emotional/psychosocial, and teaching/counselling needs), and maintain professional and institutional standards. As well, managers must have timely access to utilization data for their clinical areas of responsibility (e.g., number of patient admissions, patient transfers to other departments, number of surgical cases, length of stay, etc.). This information is essential for accurately budgeting nursing resource needs, keeping nurses' workloads at reasonable levels, and maintaining quality of care.

Based on the study findings, there is some evidence suggesting that nurses want managers to be more visible and accessible. In reality, downsizing of managerial positions and increased accountabilities have reduced the time available to be present in the clinical area. Managers must develop creative means to enhance their visibility and accessibility (e.g., unit conferences devoted to the exchange of ideas, unit/program committee network with interdisciplinary participation, staff meetings, informal dialogue with staff, etc.). By being present on nursing units more often, managers are better able to assess staff efficiency and effectiveness, as well as the overall quality and standards of care. As well, managers will have greater opportunities for obtaining staff input/feedback on unit/organizational activities and nursing practice.

Education

Study findings suggest that acute care nurses are not satisfied with existing professional development opportunities. In most organizations, cost-cutting measures have virtually eliminated funding for educational opportunities. Ideally, nurses would benefit from networking and exchanging ideas with colleagues in other regions and provinces. Managers, in collaboration with nursing staffing, must develop innovative strategies for professional development (e.g., participation on committees and task forces, special project assignments, secondment to temporary roles, in-house education sessions, etc.). In this climate of constant change and nursing shortages, it would be prudent for organizations to not only be aware of acute care nurses' expectations but also strive to achieve a balance between intrinsic and extrinsic rewards and desired outcomes (e.g., hard work, loyalty, etc.).

Study findings also highlighted the significance of professional development in fostering positive work-related attitudes. Acute care nurses and nursing students must understand the responsibilities and accountabilities associated with having control over practice. Professional development is paramount for all nursing staff. As well, educators must ensure that students are well-informed about strategies that promote positive attitudes in the practice setting. Most importantly, educators must help students develop realistic expectations about their professional roles, their obligations to employers, and

potential employers obligations to them.

Study findings also suggest that acute care nurses are dissatisfied with the interdisciplinary approach to client care. As a pivotal member of the interdisciplinary team, the role of the acute care nurse has evolved to include the responsibilities of organizer, coordinator, and manager of patient care. There is an obvious need for continuing education sessions that specifically focus on providing practitioners with information on various interdisciplinary strategies and on facilitating the acquisition of appropriate skills. Nurse educators also need to ensure that students are cognizant of the importance of the interdisciplinary approach to patient care and facilitate their acquisition of skills needed for them to become effective team members. Both student and staff nurses must appreciate the challenges of interdisciplinary team work and be prepared to function as change agents while protecting the integrity of nursing practice.

Acute care nurses felt most negative about the impact of reforms on the emotional climate of the workplace. The emotional climate was also a significant predictor of nurses' perceptions of psychological contract violation, restructuring satisfaction, and job satisfaction. Staff nurses and student nurses must develop a greater appreciation of the possible reasons for resisting system changes (e.g., job demands, job insecurity, stress, etc.) and their resulting negative implications for work-related attitudes. Both graduate nurses and nursing

students need to be informed about possible activities that may be implemented to lessen negative attitudes (e.g., co-worker support, effective communication, involvement in decision-making, teamwork, etc.).

Finally, study findings can provide nurse educators with valuable information for current and future curriculum development. Importantly, education content and strategies cannot be developed in isolation, rather there must be collaboration between educators and practitioners. Nursing students must become cognizant of the fact that they will be commencing their careers as health care providers within an environment that is highly volatile and very dynamic. Educators must assist students in developing an understanding of the reasons for and the strategies used in health reform. It is important that students develop an awareness of possible challenges that they may encounter in the practice environment and be equipped with the appropriate knowledge and insights to deal with them. As well, practitioners must be adequately prepared to mentor and support students and new practitioners as they develop the necessary skills required to practice in an ever changing environment.

Research

The current study's findings generally supported the negative impact of reforms on select aspects of the job and work environment. Although there is a data base spanning a five-year period on acute care nurses' perceptions of the

impact of health reforms on job-related and work environment factors, no comparable data base exists for work-related attitudes and behavioral intentions. Repeated investigations of determinants, work-related attitudes, and behavioral intentions would certainly provide meaningful data on the direction and strength of changes in nurses' perceptions of the job and work environment, attitudes, and behaviors over time. As well, ongoing research is required to evaluate the impact of future cost-cutting strategies and/or additional restructuring initiatives on these and other variables.

Study findings also provided partial support for the conceptual framework (i.e., CMBI) guiding the research process. There is partial support for the predictive effects of determiants (i.e., job-related and work environment factors) for work-related attitudes (i.e., psychological contract violation, restructuring satisfaction, general job satisfaction, and organizational commitment) and behavioral intentions. As well, there is partial support for the predictive effects of work-related attitudes for each other and behavioral intentions. Nevertheless, model testing with cross-sectional data is limited. Interpretations of the logic of the CMBI in the larger project will be strengthened by using longitudinal data and relying on path analysis versus multiple regression analysis.

While the current study's findings provided insightful data on the predictive power of determinants and work-related attitudes for intermediate outcomes and behavioral intentions, the contributions of individual variables and

variable sets to the explained variance were quite limited in certain cases. For example, the proportion of explained variance accounted for by study variables ranged from a high of 60.8% and 50.1% for organizational commitment and restructuring satisfaction, respectively, to a low of 33.7%, 38.9%, and 39.7% for general job satisfaction, intent to stay, and psychological contract violation, respectively. Besides the need for further determination of the most valid and reliable instruments for assessing current study variables, it is highly possible that other variables are influencing acute care nurses' work-related attitudes and behavioral intentions. Future research with a broader set of job-related and work environment variables would allow for a more thorough investigation of this complex, multifactorial process.

More intensive research efforts are obviously needed to make appropriate revisions to the CMBI so that it will be more relevant for acute care nurses. More importantly, a more comprehensive listing of variables exerting separate and interactive effects on nurses attitudes and behaviors would be extremely valuable for planning effective strategies to reduce perceptions of psychological contract violations, to enhance restructuring and job satisfaction, to enhance commitment to the organization, and to reduce thoughts about leaving current employers.

Finally, the use of a triangulated approach to data collection and analysis in future studies may help unravel the inherent complexity of the role played by

personal and situational factors in shaping attitudes and behaviors. Qualitative studies would provide a more indepth understanding of acute care nurses' perceptions of the impact of health care reforms and their work-related attitudes and behavioral intentions. As well, qualitative research data could provide some answers to questions arising from the quantitative data (e.g., Why were there age and regional differences for some variables and not others? Why did nurses working in hospitals that had undergone professional practice redesign not feel more autonomous than those in hospitals with traditional departmental structures? etc.).

Summary

The results of this study indicate that acute care nurses are more negative than positive about the impact of health care reforms. The findings also suggest that these nurses are most negative about the emotional climate of the workplace, quality of care, and standards of care. As well, acute care nurses believed that psychological contracts with their organizations had not been fulfilled, were dissatisfied with restructuring, were divided on their levels of job satisfaction, had low levels of commitment to their organizations, and were unsure if they would stay with their current employer. As demonstrated with the testing of the CMBI, multiple variables influence acute care nurses work-related attitudes and behavioral intentions. Although study findings are not

generalizable, they do provide useful comparison data for previous and future research, as well as direction for nursing practice, education, and research.

References

Abraham, I. L., & Foley, T. S. (1984). The work environment scale and the ward atmosphere scale (short forms): Psychometric data. *Perceptual and Motor Skills, 58,* 319-322.

Aiken, L. H., Clarke, S. P., & Sloane, D. M. (2000). Hospital restructuring: Does it adversely affect care and outcomes? *Journal of Nursing Administration, 30* (10), 457-465.

Aiken, L. H., & Fagin, C. M. (1997). Evaluating the consequences of hospital restructuring. *Medical Care, 35* (10), OS1-4.

Allen, N., & Meyer, J. (1990). The measurement of antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology, 63,* 32-42.

Alexander, J. A., Lichtenstein, R., Oh, H. J., & Ullman, E. (1998). A casual model of voluntary turnover among nursing personnel in long-term psychiatric settings. *Research in Nursing & Health, 21,* 415-427.

Anthony, M. K. (1999). The relationship of authority to decision-making behavior: Implications for redesign. *Research in Nursing & Health, 22,* 388-398.

Armstrong-Stassen, M., Cameron, S.J., & Horsburg, M. E. (1996, November/ December). The impact of organizational downsizing on the job satisfaction of nurses. *Canadian Journal of Nursing Administration,* 8-32.

Attwood. J. R., & Hinshaw, A. S. (1981). Job stress: Instrument development program results. *Western Journal of Nursing Research, 3* (3), 48.

Bass, B. M., & Avolio, B. (1990). *Transformational leadership development manual for the multifactor leadership questionnaire.* Palo, Alto, CA: Consulting Psychologists Press.

Baumann, A., Giovannetti, P., O'Brien-Pallas, L., Mallette, C., Deber, R., Blythe, J., et al. (2001). Healthcare restructuring: The impact of job change. *Canadian Journal of Nursing Leadership, 14* (1), 14-20.

Baumgart, A. (1997). Hospital reform and nursing labor market trends in Canada. *Medical Care (Supplement)*, 35, (10), OS124-OS131.

Best, J. A., Walsh, G., Muzin, F., & Berkowitz, J. (1997). Healthy hospital: Toward a better tomorrow. A demonstration project to promote culture change through participatory decision making. *Healthcare Management Forum, 10* (3), 24-33.

Blanchfield, K. C. (1992). *Authority and autonomy of staff nurses providing patient care: A study of nursing power.* Unpublished doctoral dissertation, University of Illinois, Chicago.

Blegan, M. A. (1993). Nurses' job satisfaction: A meta-analysis of related variables. *Nursing Research, 12* (1), 36-41.

Bluedorn, A. (1982). The theories of turnover: Causes, effects and mean. In Barcharach, S. (Ed.), *Research in the sociology of organizations.* Greenwich:JAI Press

Blythe, J., Baumann, A., & Giovannetti, P. (2001). Nurses' experiences of restructuring in three Ontario hospitals. *Journal of Nursing Scholarship,* First Quarter, 61-68.

Boyle, D. K., Bott, M. J., Hansen, H. E., Woods, C. Q., & Taunton, R. (1999). Managers' leadership and critical care nurses' intent to stay. *American Journal of Critical Care, 8* (6), 361-371.

Brown, J. A., Woodward, C. A., Shannon, H. S., Cunningham, B. L., Lendrum, E., McIntosh, J., et al. (1999). Determinants of job stress and job satisfaction among supervisory and non-supervisory employees of a large Canadian teaching hospital. *Healthcare Forum, 12* (1), 27-33.

Bryan, Y. E., Hitchings, K. S, Fuss, M. A., Fox, M. A., Kinneman, M. T., & Young, M.J. (1998). Measuring and evaluating hospital restructuring efforts: Eighteen-month follow-up and extension to critical care, part 1. *Journal of Nursing Administration, 28* (9), 21-27.

Canadian Institute for Health Information (2000). *Registered nurses database. Supply and distribution of registered nurses in Canada, 1999.* Ottawa; Canadian Institute for Health Information.

Cavanagh, S. J., & Coffin, D. A. (1992). Staff turnover among hospital nurses. *Journal of Advanced Nursing, 17*, 1369-1376.

Chandler, G. (1986). *The relationship of nursing work environment to empowerment and powerlessness*. Unpublished doctoral dissertation, University of Utah, Salt Lake City.

Cook, J., & Wall, T. (1980). New work attitude measures of trust, organizational commitment, and personal need fulfillment. *Journal of Occupational Psychology, 53*, 39-52.

Cooke, R. A., & Rousseau, D. M. (1988). Behavioral norms and expectations: A quantitative approach to the assessment of organizational culture. *Group Organizational Study, 13*, 245-273.

Corey-Lisle, P., Tarzian, A. J., Cohen, M. Z., & Trinkoff, A. M. (1999). Healthcare reform: Its effects on nurses. *Journal of Nursing Administration, 29* (3), 30-37.

Corser, W. D. (1998). The changing nature of organizational commitment in the acute care environment: Implications for nursing leadership. *Journal of Nursing Administration, 28* (6), 32-36.

Curry, J., Wakefield, D., Price, J., Mueller, C., & McCloskey, J. (1985). Determinants of turnover among nursing department employees. *Research in Nursing and Health, 8*, 397-411.

Davis, E. M. (1998/1999). Change, reform, positives, negatives and getting ready - Elizabeth Davis on healthcare reform in Newfoundland and Labrador. *Hospital Quarterly, 51*, 51-54.

Davis, E., & Tilley, G. (1996). The Health Care Corporation of St. John's, Newfoundland: Governance and management issues. In P. Leatt, L. Lemieux-Charles, C. Aird, & S. Leggat (Eds.) *Strategic alliances in health care* (pp. 171-181). Ottawa, Canada: Canadian College of Health Service Executives.

Decter, M. B. (1997). Canadian hospitals in transformation. *Medical Care, 35* (10), OS70 -75.

Duxbury, M. L., Henly, G. A., & Armstrong, G.D. (1982). Measurement of the nurse organizational climate of neonatal intensive care units. *Nursing Research, 31*, 83-88.

Effken, J. A., & Stetler, C. B. (1997). Impact of organizational redesign. *Journal of Nursing Administration, 27* (7/), 23-32.

Fisher, M. L., Hinson, N., & Deets, C. (1994). Selected predictors of registered nurses' intent to stay. *Journal of Advanced Nursing, 20,* 950-957.

Fletcher, C. E. (2001). Hospital RNs' job satisfactions and dissatisfactions. *Journal of Nursing Administration, 29* (5), 10-20.

Gerber, R., Murdaugh, C., Verran, J., & Milton, D. (1990, Sept.). *Control over nursing practice scale:Psychometric analysis.* Poster presentation at the National Conference on Instrumentation in Nursing: Chapel Hill, NC.

Good, L. R., & Nelson, D. (1973). Effects of person-group and intra-group attitude similarity on perceived group attractiveness and cohesiveness. *Psychology Reports, 33,* 551-560.

Graham, J. (1982). *Exit and voice: The prediction of political behavior by nurses engaged in hospital practice.* Unpublished doctoral dissertation, Indiana University School of Nursing, Indianapolis.

Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 159-170.

Hackman, J. R., & Oldham, G. R. (1980). *Work redesign.* Reading, MA: Addison-Wesley.

Hastings, C., & Waltz, C. (1995). Assessing the outcomes of professional practice redesign: Impact on staff perceptions. *Journal of Nursing Administration, 25*(3), 34-42.

Havens, D., & Aiken, L.(1999). Shaping systems to promote desired outcomes. *Journal of Nursing Administration, 29* (2), 14-20.

Hinshaw, A. S., & Attwood, J. R. (1980). Anticipated turnover study: A pilot stage instrument (abstract). *Communicating Nursing Research, 12,* 56.

Hinshaw, A. S., & Attwood, J. R. (1985). *Anticipated turnover among nursing staff study*. Final Report. Betheda, MD: National Institutes of Health, National Center for Nursing Research. (#RO1NU00908).

Ingersoll, G. L., Kirsch, J. C., Merk, S. E., & Lightfoot, J. (2000). Relationship of organizational culture and readiness for change to employee commitment to the organization. *Journal of Nursing Administration, 30* (1), 11-20.

Irvine, D., & Evans, M. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research, 44* (4), 246-253.

Johnston, C.L. (1997). Changing care patterns and registered nurse job satisfaction. *Holistic Nursing Practice*, 11 (3), 69-77.

Kangas, S., Kee, C. C., & McKee-Waddle, R. (1999). Organizational factors, nurses' job satisfaction, and patient satisfaction with nursing care. *Journal of Nursing Administration, 29* (1), 32-42.

Karasek, R., & Theorell, R. (1990). *Healthy work stress, productivity and the reconstruction of working life*. NewYork: Basic Books.

Kennerly, S. (2000). Perceived worker autonomy: The foundation for shared governance. *Journal of Nursing Administration, 30* (12), 611-617.

Klingle, R. S., Burgoon, M., Afifi, W., & Callister, M. (1995). Rethinking how to measure organizational culture in the hospital settings: The hospital culture scale. *Evaluation Health Professions, 18,* 166-186.

Kroposki, M., Murdaugh, C., Tavakoli, A., & Parsons, M. (1999). Role clarity, organizational commitment, and job satisfaction during hospital reengineering. *Nursing Connections, 12* (1), 27-34.

Krugman, M., & Preheim, G. (1999). Longitudinal evaluation of professional nursing practice redesign. *Journal of Nursing Administration 29* (5), 10-20.

Laschinger, H. K. S. (1996). A theoretical approach to studying work empowerment in nursing: A review of studies testing Kanter's theory of structural power in organization. *Nursing Administration Quarterly, 20* (2), 25-41.

Laschinger, H. K. S., Finegan, J., Shamian, J., & Casier, S. (2000). Organizational trust and empowerment in restructured healthcare settings: Effects on staff nurse commitment. *Journal of Nursing Administration, 30* (9), 413-425.

Laschinger, H. K. S., & Havens, D. (1996). Staff nurse work empowerment and perceived control over nursing practice: Conditions for work effectiveness. *Journal of Nursing Administration, 26* (9), 27-35.

Laschinger, H. K. S., Sabiston, J. A., Finegan, J., & Shamian, J. (2001). Voices from the trenches: Nurses' experiences of hospital restructuring in Ontario. *Canadian Journal of Nursing Leadership, 14* (1), 6-13.

Leatt, P., Baker, R. G., Halverson, P. K., & Aird, C. (1997). Downsizing, Reengineering, and Restructuring: Long-term implications for healthcare organizations. *Frontiers of Health Management, 13* (4), 3-37.

Lomas, J., Woods, J., & Veenstra, G. (1997). Devolving authority for health care in Canada's provinces: 1. An introduction to the issues. *Canadian Medical Association, 156* (3), 371-377.

Lucas, M. D., Atwood, J. R., & Hagaman, R. (1993). Replication and validation of anticipated turnover model for urban registered nurses. *Nursing Research, 41* (1), 29-35.

Lum, L., Kervin, J., Clark, K., Reid, F., & Sirola, W. (1998). Explaining nursing turnover intent: Job satisfaction, pay satisfaction, or organizational commitment? *Journal of Organizational Behavior. 19*, 305-320.

Markham, B., & Lomas, J. (1995). Review of the multi-hospital arrangements literature: Benefits, disadvantages and lessons for implementation. *Healthcare Management Forum, 5* (3), 24-25.

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108* (2), 171-194.

Maurier, W. L., & Northcott, H. C. (2000, August). Job uncertainty and health status for nurses during restructuring of health care in Alberta. *Western Journal of Nursing Research, 22* (5), 623-41.

McDermott, K., Laschinger, H. K., & Shamian, J. (1996). Work empowerment and organizational commitment. *Nursing Management, 27* (5), 44-47.

McNeese-Smith, D. K. (1997). The influence of manager behaviour on nurses' job satisfaction, productivity, and commitment. *Journal of Nursing Administration, 27* (9), 47-55.

McNeese-Smith, D. K. (1999). A content analysis of staff nurse descriptions of job satisfaction and dissatisfaction. *Journal of Advanced Nursing, 29* (6), 1332-1341.

Meyer, J. P., & Allen, N. J. (1997). A three-component conceptualization of organizational commitment. Human Resources Management Review, 1 (1), 61-89.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78* (4), 538-551.

Meyer, J. P., Allen, N. J., & Topolnytsky, L. (1998). Commitment in a changing world of work. *Canadian Psychology, 39* (1-2), 83-93.

Mobley, W. H. (1982). *Employee turnover: Causes, consequences, and control.* Reading, MA: Addison-Wesley.

Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin, 36* (5), 493-522.

Monaghan, B. J., & Alton, L., & Allen, D. (1992, September/October). Transition to program management. *Leadership,* 33-37.

Moos, R. H. (1981). *Work environment scale manual.* 2nd ed. Palo Alto: Consulting Psychology Press.

Morrison, R. S., Jones, L., & Fuller, B. (1997). The relations between leadership style and empowerment on job satisfaction of nurses. *Journal of Nursing Administration, 27 (5), 27-34.*

Morrison, E. W., & Robinson, S. L. (1997). When employees feel betrayed: A model how psychological contract violation develops. *The Academy Management Review,* 226-256.

Mowday, R. T., Porter, L., & Steers, R. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover.* New York: Academic Press.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14* (2), 224-247.

Mueller, C. W., & McCloskey, J. C. (1990). Nurses' job satisfaction: A proposed measure. *Nursing Research, 39*, 113-117.

Mueller, C., & Price, J. (1990). Economic, psychological, and sociological determinants of voluntary turnover. *The Journal of Behavioural Economics, 19* (3), 321-325.

Parasuraman, S. (1989). Nursing turnover: An integrated model. *Research Nursing and Health, 12,* 267-277.

Parfrey, P. S., Barrett, B. J., Way, C., Gregory, D., McDonald, J., Doyle, M., et al. (1999). *The impact of restructuring in acute care hospitals in Newfoundland and Labrador (*Research Grant LOI # RC2-0238-01). St. John's: Memorial University of Newfoundland, Faculty of Medicine.

Pasmore, W. A. (1988). *Designing effective organizations: The sociotechnical systems perspective.* New York: John Wiley & Sons.

Pierce, J. L., Gardner, D. G., Cummings, L. L., & Dunham, R. B. (1989). Organization-based self-esteem: Construct definition, measurement and validation. *Academy of Management Journal, 32*(3), 622-648.

Pillar, B., & Jarjoura, D. (1999). Assessing the impact of reengineering on nursing. *Journal of Nursing Administration, 29* (5), 57-64.

Polit, D., & Hungler, B. (2000). *Nursing research: Principle and methods* (6th ed.). Philadelphia: J.B. Lippincott.

Price, J., & Mueller, C. (1981). A causal model of turnover for nurses. *Academy of Management Journal, 24* (3), 543-565.

Price, J., & Mueller, C. (1986). Absenteeism and turnover of hospital employees. Greenwich, Connecticut: Jai Press Inc.

Pyne, D. G. (1998). *Nurses' perceptions of the impact of health care reform and job satisfaction.* Unpublished master's thesis, Memorial University of Newfoundland, St. John's, Canada.

Rizzo, J. R., House, R. J., & Lirtzman, S. L. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly, 20,* 150-163.

Robinson, S. L.. Kraatz, M. S., & Rousseau, D. M. (1994). Changing obligations and the psychological contract: A longitudinal study. *Academy of Management Journal, 37* (1), 137-152.

Robinson, S. L., & Rousseau, D. M (1994). Violating the psychological contract: Not the exception but the norm. *Journal of Organizational Behaviour,15,* 245-259.

Rousseau, D. M. (1990). New hire perceptions of their own and their employer's obligations: A study of psychological contracts. *Journal of Organizational Behavior, 11,* 389-400.

Schutzenhofer, K. K. (1987). The measure of professional autonomy. *Journal of Professional Nursing, 3* (5), 278-283.

Scott, J., Sochalski, J., & Aiken, L. (1999). Review of magnet hospitals research: Findings and implications for professional nursing practice. *Journal of Nursing Administration, 29* (1), 9-19.

Seago, J.A. (1999). Evaluation of a hospital work redesign. *Journal of Nursing Administration, 29* (11), 31-38.

Shader, K., Broome, M. E., Broome, C. D., West, M. E., & Nash, M. (2001). Factors influencing satisfaction and anticipated turnover for nurses in an academic medical center. *Journal of Nursing Administration, 31* (4), 210-16.

Shamian, J., & Lightstone, E.Y. (1997). Hospital restructuring initiatives in Canada. *Medical Care, 35* (10), OS62-69.

Shindul-Rothschild, J., Berry, D., & Long-Middleton, E. (1996). Where have all the nurses gone? *American Journal of Nursing, 96* (11), 25-39.

Shindul-Rothschild, J., Long-Middleton, E., & Berry, D. (1997). 10 keys to quality care. *American Journal of Nursing, 97* (11). 35-43.

Simms, H. P., Szilagyi, A. D., & Keller, R. T. (1976). The measurement of job characteristics. *Academy Management Journal, 19,* 195-212.

Skelton-Green, J. M., & Singh Sunner, J. (1997, September/October). Integrated delivery systems: The future for Canadian health care reform? *Canadian Journal of Nursing Administration,* 90-11.

Sochalski, J., Aiken, L. H., & Fagin, C. M. (1997). Hospital restructuring in the United States, Canada, and Western Europe. *Medical Care, 35* (10), OS13-25.

Somers, M. J. (1995). Organizational commitment, turnover and absenteeism: An examination of direct and interaction effects. *Journal of Organizational Behavior, 16*, 49-58.

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38* (5), 1442-1465.

Stamps, P. L., & Piedmonte, E. B. (1986). *Nurse and work satisfaction: An index for measurement.* Ann Arbor, MI:Health Administration Press.

Statistics Canada (1995). *Registered Nurses Management Data 1995.* Ottawa: Health Statistics Division, Health Canada.

Statistics Canada (1996). *Registered Nurses Management Data 1996.* Ottawa: Health Statistics Division, Health Canada.

Statistics Canada (1997). *Registered Nurses Management Data 1997.* Ottawa: Health Statistics Division, Health Canada.

Statistics Canada (1998). *Registered Nurses Management Data 1998*. Ottawa: Health Statistics Division, Health Canada.

Tomey, A., Bakas, T., & Deets, C. (1990). *Development of an instrument to measure managerial environment*. Unpublished manuscript, Indiana University, Indianapolis.

Torres, G. (1992). A reassessment of instruments for use in a multi-variate evaluation of a collaborative practice project. In O. L. Strickland & C. F. Walt (Eds.) *Measurement of nursing outcomes: Volume 2, Measuring Nursing Performance (pp. 381-391)*. New York: Springer Publishing Co.

Tovey, E. J., & Adams, A. E. (1999). The changing nature of nurses' job satisfaction: An exploration of sources of satisfaction in the 1990s. *Journal of Advanced Nursing, 30* (1), 150-158.

Tumulty, G., Jernigan, I. E., & Kobut, G. (1994). The impact of perceived work environment on job satisfaction of hospital staff nurses. *Applied Nursing Research, 7* (2), 84-90.

Turner, S. (1996). Is your nursing staff ready for the healthcare evolution? *Journal of Nursing Administration, 26* (2), 5-6.

Turnley, W. H., & Feldman, D. C. (1998). Psychological contract violations during corporate restructuring. *Human Resource Management, 37* (1), 71-83.

Turnley, W. H., & Feldman, D. C. (1999). The impact of psychological contract violations on exit, voice, loyalty, and neglect. *Human Relations, 52* (7), 895-922.

Van de Ven, A. H., & Ferry, D. L. (1980). *Measuring and assessing organizations*. New York: Wiley.

Velianoff, G. (1986). *A construct validity study: Accountability for nursing care*. Unpublished dissertation, Indiana University School of Nursing, Indianapolis.

Wallach, E. J. (1983). Individuals and organizations: The cultural match. *Training Development Journal,* February, 29-36.

Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52,* 129-148.

Way, C. (1994). *Report on the analysis of responses to the ARNN special survey: Health System Changes.* St. Johns, NF: The ARNN.

Way, C. (1995). *Nurses' perceptions of health care reforms and their impact on the quality of health care and nursing practice.* St. John's, NF: The ARNN.

Way, C. (1999a). *Restructuring Satisfaction Scale.* St. John's: Memorial University of Newfoundland, Faculty of Medicine.

Way, C. (1999b). *Revised Impact of Health Care Reform Scale.* St. John's: Memorial University of Newfoundland, Faculty of Medicine.

Way, C., & Gregory, D. (May, 2000). *Impact of restructuring: Employee attitudes.* Presented at the Annual General Meeting of the ARNNL, Newfoundland, Canada.

Weisman, C. S., Alexander, C. S., & Chase, G. A. (1981). Determinants of hospital staff nurse turnover. *Medical Care, XIX* (4), 431-443.

Westrope, R. A., Vaughn, L., Bott, M., & Taunton, R. L. (1995). Shared governance: From vision to reality. *Journal of Nursing Administration 25* (12), 45-54.

Wilson, B., & Laschinger, H. K. (1994). Staff nurse perception of job empowerment and organizational commitment: A test of Kanter's theory of structural power in organizations. *Journal of Nursing Administration, 24* (4S), 39-47.

Woodward, C. A., Shannon, H. S., Cunningham, C., McIntosh, J., Lendrum, B., Rosenbloom, D., et al. (1999). The impact of re-engineering and other cost reduction strategies on the staff of a large teaching hospital. *Medical Care, 37* (6), 556-569.

Woodward, C. A., Shannon, H. S., Lendrum, B., Brown, J., McIntosh, J., & Cunningham, C. (2000). Predictors of job stress and satisfaction among hospital workers during: Differences by extent of supervisory responsibilities. *Healthcare Management Forum, 13* (1), 29-35.

Appendix A

Approval from Human Investigation Committee

Memorial
University of Newfoundland

Human Investigation Committee
Research and Graduate Studies
Faculty of Medicine
The Health Sciences Centre

1999 07 20

Reference #99.73

Dr. P. Parfrey
C/o Ms. D. Gregory
Patient Research Centre

Dear Dr. Parfrey:

At a meeting held on **July 15, 1999**, the Human Investigation Committee reviewed your application entitled **"The Impact of Restructuring on Acute Care Hospitals in Newfoundland and Labrador"** and granted approval of the application as submitted.

I wish you success with your study.

Sincerely,

H.B. Younghusband, PhD
Chairman
Human Investigation Committee

HBY\jglc

C Dr. K.M.W. Keough, Vice-President (Research)
Dr. R. Williams, Vice-President, Medical Affairs, HCC

Memorial
University of Newfoundland

Office of Research and Graduate Studies (Medicine)
Faculty of Medicine
The Health Sciences Centre

July 27, 1999

TO: Dr. Patrick Parfrey

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

SUBJECT: **Application to the Human Investigation Committee - #99.73**

The Human Investigation Committee of the Faculty of Medicine has reviewed your proposal for the study entitled **"The Impact of Restructuring on Acute Care Hospitals in Newfoundland & Labrador"**.

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, PhD
Assistant Dean

cc: Dr. K.M.W. Keough, Vice-President (Research)
Dr. R. Williams, Vice-President, Medical Services, HCC

HealthCare
Corporation of St. John's

August 17, 1999

Dr. P. Parfrey
c/o General Hospital Site

Dear Dr. Parfrey:

Your research proposal ***HIC 99.73 - The Impact of Restructuring on Acute Care Hospitals in Newfoundland And Labrador*** has been considered by the Research Proposals Approval Committee (RPAC) of the Health Care Corporation of St. John's at its meeting on August 5, 1999.

The committee has approved your proposal to be conducted at the General, Grace and St. Clare's sites within the Health Care Corporation of St. John's. This approval is contingent on the appropriate funding being provided and continued throughout the project and on the provision of regular progress reports at least annually to the RPAC Committee.

Yours sincerely,

Robert Williams, MD, MPH
Vice President
Medical Services

mh
c Patient Research Centre

Appendix B

Cover Sheet For Registered Nurses' Survey

You Will Only Be Heard If You Respond!

Colleague:

The Clinical Epidemiology/Patient Research Centre, located in the Health Sciences Complex, is looking for feedback on health care reforms. In association with other stakeholders (i.e., professional associations, unions, Department of Health & Community Services, federal research bodies), you have been randomly selected to receive a questionnaire on health care reforms.

ARNN registration numbers are recorded on the questionnaires for the purpose of including the same people in a future survey. **There is no way for the investigators to match registration numbers with personal identifiers (i.e., names or addresses)**. All identifying information has been retained by the ARNN to ensure confidentiality of responses.

Since the mid-1990s, a number of significant changes have occurred in the provincial health care system as a result of downsizing and restructuring initiatives. We are **extremely** interested in your personal experiences with and opinions of reforms during this time. It is important that you answer the questions yourself and that the questionnaire is not shared with your colleagues.

We hope that you will take this opportunity to express your views. Your input is desperately needed. If we get the desired response rate, the information will be presented to all interested parties.

Enclosed is an envelope (postage pre-paid) for you to return the questionnaire. Thank you for taking the time to help us with this project.

The deadline reply date is December 15, 1999.

Enclosure

Appendix C

Reminder Letter

MEMORANDUM

TO: **Registered Nurses**

FROM: **Association of Registered Nurses of Newfoundland and Labrador**

DATE: **January 16, 2000**

SUBJECT: **Questionnaire, Perceptions of Health Care**

In December, the Association of Registered Nurses of Newfoundland and Labrador, in collaboration with the Clinical Epidemiology Unit of Memorial University, sent you a questionnaire on your perceptions of health care.

This is a request that you complete the questionnaire and return it to us as your input would be greatly appreciated. Thank you, if you have already sent your response. Please call us if you need another questionnaire and we will send it to you immediately.

Your input by January 31, 2000 would be appreciated.

Appendix D

Employee Attitudes Survey

General Information

The information that you provide in this section will be helpful in determining how representative the sample is in terms of the health care workforce. It will also facilitate comparisons across areas of practice and within and among regions. Please **ONLY CIRCLE ONE RESPONSE** for Questions 1 thru 10.

PLEASE DO NOT WRITE IN THIS SECTION.

CODE

1. Occupation:

   (1) Allied Health Care Professional (Specify) _____
   (2) Licensed Practical Nurse
   (3) Registered Nurse _____

2. Primary Area of Responsibility:

   (1) Direct Care
   (2) Administration (includes management)
   (3) Education (Inservice/Consumer)

   (4) Other (please specify)_____ _____

3. Position Held:

   (1) Administrator
   (2) Educator
   (3) Researcher
   (4) Staff/Clinician

   (5) Other (please specify) _____ _____

4. Total Number of **Years Experience** in Health Care:

   (1) Less than 1 year (4) 5 to 9 years
   (2) 1 to 2 years (5) 10 to 19 years
   (3) 3 to 4 years (6) 20 years or greater _____

5. Total number of **Years in Current Position**:

   (1) Less than 1 year (4) 5 to 9 years
   (2) 1 to 2 years (5) 10 to 19 years
   (3) 3 to 4 years (6) 20 years or greater _____

PLEASE DO NOT WRITE IN THIS SECTION.

CODE

6. Nature of Employment:

(1) Full-Time (permanent)
(2) Full-Time (temporary)
(3) Part-Time (permanent)
(4) Part-Time (temporary)
(5) Casual
(6) Not Employed _____

7. Geographic Region of Workplace:

(1) Eastern 1 (HCCSJ)
(2) Eastern 2 (Avalon)
(3) Eastern 3 (Peninsulas)
(4) Central (East/West)
(5) Western
(6) Labrador
(7) Northern

(8) Other (please specify) _____ _____

8. Educational Background: **(Circle one only, i.e, highest level)**

(1) Diploma/Certificate
(2) Baccalaureate
(3) Masters
(4) Doctorate

(5) Other (please specify) _____ _____

9. Gender:

(1) Male
(2) Female _____

10. Age in years: _____ _____

Part I: Staffing Adequacy

Research findings suggest that the incidence of illnesses and work-related injuries increase among nursing staff during periods of restructuring/downsizing. We are particularly interested in what is happening at the unit level across different departments and hospitals with regard to staffing patterns, workload, and incidence of illnesses and work-related injuries.

(a) Please provide estimates on each of the following items:

- Hospital's acute care bed capacity: <50____ 50 - 100____ >100____
- Clinical setting of employment: _____
- Average daily patient census: _____
- Average total number of LPN & RN staff per shift: Day_____Evening/Night_____
- Average ratio of RNs to LPNs: _____
- Number of **personal** sick-leave days over the past year: _____
- Proportion of **personal** sick days due to work-related injuries: _____

(b) Use the following scale to rate how you feel about staffing issues in your organization. Again it is important that you respond to all items. Please **circle the number** that best captures your position.

- Overall, **how adequate** is the staffing situation on your unit for meeting patient care requirements?

1	2	3	4	5
Extremely short; quality of patient care has suffered	Short but quality of patient care not affected	Adequate	More than adequate	Excellent

- **How often** does your unit require the services of casual RNs and/or call backs to bring the staff/patient ratio up to adequate levels?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Almost Always

- Overall, how does the current availability of RN staff for patient care **compare** with the period prior to health care restructuring/downsizing?

1	2	3	4	5
Much less than previously	Less than previously	About the same	More than previously	Much more than previously

- **How often** during the past year have you been required to return to work on your days-off against your wishes?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Almost Always

- **How often** have you had your annual leave requests denied over the past one to two years?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Almost Always

- **How often** have you had to miss nutrition breaks over the past one to two years?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Almost Always

Part II: Organizational Commitment

In this section of the questionnaire we are interested in how you would rate your commitment to your present employer. 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:

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree or Agree	Slightly Agree	Moderately Agree	Strongly Agree

		Strongly Disagree						Strongly Agree
11.	I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	1	2	3	4	5	6	7
12.	I talk up this organization to my friends as a great organization to work for.	1	2	3	4	5	6	7
13.	I would accept almost any type of job assignment in order to keep working for this organization.	1	2	3	4	5	6	7
14.	I find that my values and the organization's values are very similar.	1	2	3	4	5	6	7
15.	I am proud to tell others that I am part of this organization.	1	2	3	4	5	6	7
16.	This organization really inspires the very best in me in the way of job performance.	1	2	3	4	5	6	7
17.	I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	1	2	3	4	5	6	7
18.	I really care about the fate of this organization.	1	2	3	4	5	6	7
19.	For me this is the best of all possible organizations for which to work.	1	2	3	4	5	6	7

Part III: Psychological Contract Violation/Intentions

Use the following scales to rate how you feel about your organization. Again it is important that you respond to all items. Please **circle the number** that best captures your position.

20. Overall, then, **how well** has your organization fulfilled the commitments that were made to you when you were hired?

1	2	3	4	5
Very Poorly Fulfilled	Poorly Fulfilled	Neutral	Fulfilled	Very Well Fulfilled

21. Overall, then, **how often** has your employer failed to meet the commitments that were made to you when you were hired?

1	2	3	4	5
Very Infrequently	Infrequently	Neutral	Frequently	Very Frequently

22. Considering all of your job factors together, how does the amount of rewards that you actually receive from your organization **compare** to the amount of rewards that your organization promised you?

1	2	3	4	5
Much Less Than Promised	Less Than Promised	About the Same As Promised	More Than Promised	Much More Than Promised

23. Overall, how does the amount of rewards (both financial and non-financial) you receive from your organization **compare** to the amount that you think it should provide? The amount my organization supplies is:

1	2	3	4	5
Much Less Than It Should	Less Than It Should	About As Much As It Should	More Than It Should	Much More Than It Should

24. Considering the impact of downsizing/restructuring on the health care system, how likely is it that you will stay with your current employer?

1	2	3	4	5
Very Unlikely	Unlikely	Unsure	Likely	Very Likely

25. I would consider leaving my present position if another employment opportunity presented itself?

1	2	3	4	5
Very Unlikely	Unlikely	Unsure	Likely	Very Likely

26. How often have you put any serious effort into searching for a new job (e.g. checking newspapers or ads, making calls, sending resumes, etc.)?

1	2	3	4	5
Very Infrequently	Infrequently	Neutral	Frequently	Very Frequently

Part IV: Satisfaction

In this section of the questionnaire we are interested in your overall satisfaction with your job as well as select areas related to managerial restructuring within your organization. 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:

1	2	3	4	5	6	7
Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree

General Satisfaction	Strongly Disagree						Strongly Agree
27. Generally speaking, I am very satisfied with this job.	1	2	3	4	5	6	7
28. I am generally satisfied with the kind of work I do in this job.	1	2	3	4	5	6	7
29. Most people in this job are very satisfied with the job.	1	2	3	4	5	6	7

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

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

Downsizing/Managerial Restructuring	Strongly Disagree					Strongly Agree
30. I am generally satisfied with the visibility and accessibility of management personnel since restructuring.	1	2	3	4	5	6
31. I am generally satisfied with the degree to which management seeks input on professional care standards.	1	2	3	4	5	6
32. I am generally satisfied with the amount of information/inservice provided to help prepare me for changes related to restructuring (e.g. job responsibilities, transfer of functions, etc.)	1	2	3	4	5	6
33. I am generally satisfied with the interdisciplinary approach to patient/client care in my organization.	1	2	3	4	5	6
34. I am generally satisfied with the amount of time spent dealing with interdisciplinary conflicts.	1	2	3	4	5	6

Part V: 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. The content of the statements include overall impressions about the impact of health care reforms, as well as some specifics with regard to quality and safety concerns, workplace conditions, and professional issues. 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:

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

		Strongly Disagree					Strongly Agree
35.	I understand the importance of downsizing and restructuring the health care system in this province.	1	2	3	4	5	6
36.	Health care reforms have not placed sufficient emphasis on maintaining quality care standards.	1	2	3	4	5	6
37.	Patients/clients have reasonable access to health care services despite downsizing and managerial restructuring efforts.	1	2	3	4	5	6
38.	The movement towards community based care is a positive step in helping facilitate greater patient/client accountability and responsibility.	1	2	3	4	5	6
39.	Changes in the health care system have given health care providers the opportunity to gain greater control over their practice.	1	2	3	4	5	6
40.	Supplies/resources are often not adequate to ensure patient/client comfort.	1	2	3	4	5	6
41.	Despite personnel reductions, it is still possible to meet patients'/clients' basic care needs.	1	2	3	4	5	6

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

		Strongly Disagree					Strongly Agree
42.	Because of overwhelming workload demands, it is often necessary to lower care standards.	1	2	3	4	5	6
43.	I am confident that patients/clients and family members receive adequate teaching and counselling in preparation for discharge.	1	2	3	4	5	6
44.	Due to increasing acuity levels, it is not possible to adequately assess or meet patients'/clients' emotional/psychosocial needs.	1	2	3	4	5	6
45.	I am confident that in my agency procedures are being performed in a safe and competent manner.	1	2	3	4	5	6
46.	Because of inadequate inservice education on new policies/procedures, I believe patients/clients are being placed at risk.	1	2	3	4	5	6
47.	Patients/clients are more susceptible to potential harm from delays or errors due to increased demands and stressors in the work place.	1	2	3	4	5	6
48.	Most of the time we have the necessary **physical resources** (e.g. equipment, supplies, facilities) to provide safe care.	1	2	3	4	5	6
49.	Most of the time we have the necessary **human resources** (i.e. nurses, LPNs, physicians, allied health professionals, and support staff) to provide safe care.	1	2	3	4	5	6
50.	Adequate health care resources are not always available in the community for patients/clients upon discharge.	1	2	3	4	5	6

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

		Strongly Disagree					Strongly Agree
51.	At my workplace, staff meet regularly with management to discuss workplace concerns.	1	2	3	4	5	6
52.	At my workplace, staff meet regularly with management to identify ways to resolve problems and build on strengths.	1	2	3	4	5	6
53.	At my workplace, opportunities are provided to keep current with latest developments through reading and attending workshops, inservices, and teleconference sessions.	1	2	3	4	5	6
54.	Because I feel powerless to change things where I work, it is difficult to be motivated to act as an advocate for patients/clients.	1	2	3	4	5	6
55.	Due to increased acuity and shortened lengths of stay, it is not always possible to meet professional care standards.	1	2	3	4	5	6
56.	As a consequence of recent changes in the health care system, I can appreciate the challenges facing my profession.	1	2	3	4	5	6
57.	As a consequence of recent changes in the health care system, I feel empowered to be an active participant in affirming an important future role for my profession.	1	2	3	4	5	6
58.	Because I work in a supportive environment, I am able to give that 'extra' effort when my job demands it.	1	2	3	4	5	6
59.	Due to the heavy workload in my workplace, I feel really frustrated with the reduced level of care that is provided.	1	2	3	4	5	6

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

		Strongly Disagree					Strongly Agree
60	Although I strive to give/ensure consistent and competent care, I rarely receive appreciation or recognition for what I do.	1	2	3	4	5	6
61.	Increased demands and stress in the workplace have led to unpleasant working relationships with co-workers and other health care providers.	1	2	3	4	5	6
62.	In the aftermath of restructuring efforts, I find that my time management skills have become more important.	1	2	3	4	5	6
63.	Increased demands and stress in the workplace have engendered a sense of disillusionment and low morale.	1	2	3	4	5	6
64.	Since restructuring of the health care system, I find my job more satisfying and challenging.	1	2	3	4	5	6