



# Canadian Nurse Practitioner Job Satisfaction

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## Abstract

*Purpose:* To examine the level of job satisfaction and its association with extrinsic and intrinsic job satisfaction characteristics among Canadian primary healthcare nurse practitioners (NPs).

*Data Sources:* A descriptive correlational design was used to collect data on NPs' job satisfaction and on the factors that influence their job satisfaction. A convenience sample of licensed Canadian NPs was recruited from established provincial associations and special-interest groups. Data about job satisfaction were collected using two valid and reliable instruments, the Misener Nurse Practitioner Job Satisfaction Survey and the Minnesota Satisfaction Questionnaire. Descriptive statistics, Pearson correlation and regression analysis were used to describe the results.

*Conclusions:* The overall job satisfaction for this sample ranged from satisfied to highly satisfied. The elements that had the most influence on overall job satisfaction were the extrinsic category of partnership/collegiality and the intrinsic category of challenge/autonomy. These findings were consistent with Herzberg's Dual Factor Theory of Job Satisfaction.

*Implications for Practice:* The outcomes of this study will serve as a foundation for designing effective human health resource retention and recruitment strategies that will assist in enhancing the implementation and the successful preservation of the NP's role.

## Introduction

The Canadian Health Services Research Foundation (CHSRF 2003) recognizes that without a conscious effort to integrate planning for health human resources, the healthcare system will not be able to function at its optimum level, and patient care and the health of workers in the system will suffer. Although some Canadians may recognize the importance of this statement, most nurses would probably conclude that too little has been done on the front lines of service delivery regarding planning for health human resources (HHR).

In terms of HHR planning specific to primary healthcare nurse practitioners (NPs), interest is building among governments, educational institutions, nursing regulatory bodies, NPs and other healthcare providers to clarify how the NP's role can be better implemented and integrated into the Canadian healthcare delivery system. When studying the role of the NP in the context of the global nursing shortage, outcomes such as job satisfaction, level of burnout and level of productivity are critical in order to recruit and retain skilled professionals (CNA 2005). This study focused on levels of job satisfaction for NPs in Canada. The primary theoretical foundation for the study was Herzberg's Dual Factor Theory of Job Satisfaction (Herzberg 1968). According to this theory, intrinsic factors are sources of job satisfaction and extrinsic factors are sources of job dissatisfaction.

## Literature Review

Numerous studies have shown that dissatisfied employees are more likely to quit their jobs or be absent than satisfied employees (Crow et al. 2006; Kacel et al. 2005; Saari and Judge 2004; Wild et al. 2006). The Canadian Nurses Association (CNA 2005) reported that research demonstrates NPs can improve public access to health services, and believes that efforts to recruit and retain NPs are central to the sustainability of optimal healthcare for Canadians. The impact of job satisfaction on the recruitment and retention of primary healthcare (PHC) NPs is a common theme throughout the published literature (CIHI and CNA 2005). The CNA's extensive review of the literature also found a lack of coordinated efforts in recruiting and retaining NPs in Canada. Outcomes of NP job satisfaction studies vary; however, results are consistent in general rating levels. The majority of the studies have been completed within the United States, an important fact considering that the historical evolution of the profession has mainly occurred in that country. Given the vast differences between the Canadian and US health systems, there are undoubtedly some national variances.

Canadian-based studies of NPs are lacking, providing gaps in the literature. Specifically, there has been no published examination of job satisfaction of Canadian PHC NPs. Although the role of NPs in Canada has experienced resurgence in the last 20 years, decision-makers have been relying on non-Canadian-

based data to develop and design employment conditions. An additional gap in the literature is the appreciation of the consequences of job satisfaction. This review did not find a direct, comprehensive relationship between practice outcomes and levels of satisfaction for NPs. Saari and Judge (2004) found a correlation between job performance and job satisfaction and determined that this relationship was stronger for professional jobs. The information gaps are most evident in the lack of details and specific patient care outcomes.

### **Recent Literature Synthesis**

A benchmark US study reinforced Herzberg's theory as applicable to the study of job satisfaction among nurse practitioners (Tri 1991) and examined NPs as opposed to RNs. It also had implications for policy makers and curriculum development. Tri (1991) introduced the implication of years of practice when considering level of satisfaction, and found that 34% of NP respondents from Washington state were very satisfied with their jobs while 33.6% were moderately satisfied. Facets of job satisfaction were not specifically measured. Numerous job satisfaction studies since have utilized Herzberg's model of job satisfaction (Kacel et al. 2005; Koelbel et al. 1991b; Moreno 1998; Owings 1999; Quizon-Guatno 2006; Schiestel 2007; Smith Randolph and Johnson 2005), providing the understanding that overall satisfaction level is an indicator of the balance of motivating and dissatisfying factors.

Two Canadian NP studies were reviewed (IBM 2003; Harper Femson 1998). Harper Femson found factors that the NPs considered satisfying with their role to include challenge, autonomy, independence and flexibility. Factors identified as dissatisfying with the NP role were lack of employment opportunities/job security; lack of legislation to support the NP role; and lack of physician understanding of and support for the NP role (Harper Femson 1998). The conclusions of this study must be viewed against the fact that it was completed prior to any Canadian NP legislation and examined only one province.

The IBM (2003) study was undertaken in order to determine how best to integrate PHC NPs into the Ontario healthcare system, and concluded that Ontario NPs were neutral to satisfied with their jobs (3.84/5.0 on a combined scale). This mixed-method study examined NPs, physicians working with NPs, physicians not working with NPs and patients. Population-based surveys ( $N=428$ ) and site surveys ( $N=27$ ) were also conducted. Data collected from this project were extensive. Strengths of this study include its comprehensive mixed-methods approach and good NP response rate (77%). Information obtained in this study was used to synthesize a practice model framework and deliverable recommendations to strengthen the integration of NPs in Ontario.

NP job satisfaction studies using various tools, conceptual methods and practice settings have been reported in the literature. Most of these studies have been US-based and focused on the relationship between general job characteristics and overall job satisfaction level. In addition to the IBM (2003) study there have been recent (<10 years) studies that address job satisfaction of NPs. Those studies that have not already been discussed are presented in Table 1.

**Figure 1.** Synthesis of NP job satisfaction literature (1999-2006)

Sample	Setting	Results	Study Strengths & Limitations
Kacel, Miller and Norris (2005) Measurement of nurse practitioner satisfaction in a midwestern state			
147 (random)	Midwest state, USA	Overall satisfaction minimally satisfied to satisfied Satisfied with the intrinsic factors such as sense of accomplishment, autonomy and the challenge their job offers Dissatisfied with the extrinsic factors such as inadequate reward, compensation for services and monetary increase in salaries and bonuses	State was not identified, making inferences to state legislation difficult and thus limiting generalizability to other "like" environments 63% return rate; used an NP-specific instrument
Owings (1999) Job satisfaction among family nurse practitioners in the United States Air Force			
32	United States Air Force	Overall high level of job satisfaction; intrinsic factors such as personal satisfaction and high-quality patient care positively influence job satisfaction Salary was found to be the biggest dissatisfier	Limited generalizability due to sample Supports intrinsic and extrinsic job variables
Quizón-Guatno (2006) Critical reflections on job satisfaction of nurse practitioners employed by the Department of Veterans Affairs			
8 random from various medical specialties	San Diego, US Department of Veterans Affairs Healthcare System	NPs were more satisfied with factors intrinsic to their work (ability to deliver high-quality patient care, relative level of autonomy, computerized technology and collegiality) Extrinsic factors were sources of dissatisfaction (increased workload, fewer staff resources, large amount of non-NP tasks)	Small sample size (8) and large variance in the type of practice

Schiestel (2007) Job satisfaction among Arizona adult nurse practitioners			
155 47% response rate	Arizona	Mean overall satisfaction score = 4.69 (1 very dissatisfied – 6 very satisfied) Differences in employer type, gender, annual income, membership in professional organization, or full-time vs part-time did not result in significant differences in scores	Not generalizable to NPs in other practice areas Response bias (characteristics of those who choose to answer mail-in survey) and a relatively small sample size may not yield adequate numbers for subgroup analysis of demographic characteristics to overall satisfaction
Wild, Parsons, & Dietz (2006) Nurse practitioner's characteristics and job satisfaction			
200	California	Overall satisfaction was high Aspects that showed significant levels of satisfaction were schedules, flexibility of hours and interprofessional relationships NPs were least satisfied with not having professional opportunities such as participation in nursing research, writing/publishing and belonging to a committee	Limitations are small number of returned surveys and awareness of the phenomenon under investigation (reliability)

### Satisfiers

Similar factors were reported by NPs as satisfiers across studies and practice settings. Characteristics consistently described as satisfiers are autonomy, challenge, collaborative practice/collegial relationships, perceived skill level, access to assistants for routine tasks, portion of time spent in patient care, challenge of learning and growing, flexibility of the role, task significance, personal satisfaction, perceived responsibility, security of employment and sense of accomplishment. One of the most cited factors, and always in the top three listed, is autonomy or independence (Bellamy 1997; Harper Femson 1998; IBM 2003; Kacel et al. 2005; Koelbel et al. 1991a; Moreno 1998; Owings 1999; Quizon-Guatno 2006; Tri 1991).

### Dissatisfiers

Factors that NPs have identified as contributing to dissatisfaction with the NP role in past studies are inadequate salary; lack of employment opportunities/job security; lack of legislation to support the NP role; incompatibility of goals with organization; level of environmental support for innovation; excessive time spent in administrative duties; lack of physician understanding of and support for the NP role; lack of public understanding of the role; lack of titling/consistency in titling/titling protection; lack of involvement in research; role dissention between NPs and other nurses; isolation/burnout/personal adjustments/lack of support related to employment in remote communities; lack of collegial relationship with physicians; amount of physician availability influencing NP utilization; lack of

time to complete special work-related projects/serve on professional committees; and the perceived negative physical setting of the work environment. Of the most often-cited factors, and always in the top three, is salary or remuneration arrangement (Bellamy 1997; Harper Fenson 1998; IBM 2003; Kacel et al. 2005; Koelbel et al. 1991a; Moreno 1998; Owings 1999; Tri 1991).

As the NP profession continues to flourish, more attention needs to be given to prospective studies that clearly measure predictors of satisfaction. There are gaps in the Canadian NP study settings, indicating future research directions. Studies also have focused mainly on the practitioner and the profession, leaving implications for interpretation to decision-makers and HHR planners. Contributions to a broader understanding of Canadian NPs' job satisfaction will have enormous relevance for nursing practice and decision-makers.

## Methods

Power was achieved for this study, as sufficient sample size of 123 was calculated using G\* Power 3.0 with the following elements: type of analysis (multiple regressions), number of variables (6), alpha (.05), estimated power (.90) and effect size (.15). This descriptive correlational study used a convenience sample of licensed Canadian NPs. The NPs were recruited from established provincial associations and special-interest groups. At the time of data collection, 796 NPs were identified. There are significant inconsistencies in NP licensure numbers across Canada (CNA 2006). Of the 796 identified NPs, those who worked primarily as administrators, researchers and academics were excluded from the study; only those who provided clinical care 60% of the time were included. As no regulatory jurisdictions could screen for these criteria, the invitation was sent to all registrants; screening occurred during the consent phase or prior to data analysis. We had a return rate of 25%. Of the 196 returned surveys, 162 met inclusion criteria.

## Instruments

Job satisfaction was the dependent variable and was measured using a single-item indicator with a 100-point scale. This item was designed to produce scores from 0 to 100, where higher scores reflect greater degrees of job satisfaction and lower scores reflect lower job satisfaction. Independent variables for this study were intrinsic and extrinsic job satisfaction factors. Intrinsic job satisfaction factors were defined as those that arise from the performance of the job itself; external job satisfaction factors were viewed as those provided primarily by the employer. The instruments used in this study were the Misener Nurse Practitioner Job Satisfaction Survey (MNPJSS) and the Minnesota Satisfaction Questionnaire – Short Form (MSQ-SF). Both the MNPJSS and the MSQ-SF were used in this study not to provide an overall measure of nurse satisfaction but rather to provide a foundation for the examination of the intrinsic and extrinsic factors that lead to

job satisfaction and to differentiate factors into several scales of satisfaction.

The MNPJSS was used to measure intrinsic and extrinsic job factors specific to NPs and was developed using the conceptual underpinnings of Herzberg's Dual Factor Theory of Job Satisfaction. The scale is a 44-item, self-administered six-factor survey utilizing a six-point Likert-type scale with scores ranging from 6 (very satisfied) to 1 (very dissatisfied) (Misener and Cox 2001). For this study, reliability was examined using Cronbach's alpha. Alphas for the subscales ranged from .93 to .73. Validity for the MNPJSS for this study was shown through the correlation coefficients between factors ranging from .34 to .71 ( $p < .01$ ).

The MSQ-SF (Weiss et al. 1967) was used to provide a broad measure of intrinsic and extrinsic job satisfaction factors. The instrument is consistent with Herzberg's Dual Factor Theory of Job Satisfaction. The MSQ-SF consists of three scales that measure intrinsic, extrinsic and general job satisfaction. Only the intrinsic and extrinsic measures were used for this study. Items are scored on a five-point Likert scale. Responses range from 1 (very satisfied) to 5 (very dissatisfied). Responses were reverse-scored before analysis. Ten items measure the intrinsic dimension of job satisfaction and 10 items measure the extrinsic dimension. Validity was examined with correlation coefficients between factors ranging from .32 to .75. For this study reliability was examined with Cronbach's alpha. The alphas for intrinsic and extrinsic dimensions were .84 and .83, respectively, with a total for the 20 items equalling .91.

#### Data collection

After receiving approval from the Institutional Review Boards at Athabasca University and Case Western Reserve University, identified NPs were sent an invitation to participate in the survey during a seven-week period (October – November 2007). Four hundred nine survey invitations were sent directly to Canadian NPs, either through email or traditional mail delivery. The initial contact included an invitation to a link to a third-party secure website (Survey Monkey), where the anonymous surveys (including demographic form, the MNPJSS and the MSQ-SF) were completed. The initial email invitation was followed with a one-reminder contact two weeks after the first email. In all cases these emails were sent by the regulatory body in order to preserve the privacy of the NPs' email addresses. After data collection closed, the data were downloaded directly to SPSS for data analysis.

The sample included invited NPs in Canadian jurisdictions that reported more than five NP registrants according to 2006 NP registration information obtained from the Canadian Institute for Health Information (CIHI) database, which indicated a pan-Canadian total of 1,026 NPs. There are thought to be many RNs using the title

NP throughout Canada; however, only those currently registered in an extended class as NPs (or applicable title such as NP [Expanded Practice]) were considered for the sample. At the time of data collection, the Association of Registered Nurses of Prince Edward Island, the Ordres des infirmiers and infirmières du Québec and the Yukon Registered Nurses Association did not report more than five NPs and were therefore not included. Individual jurisdictions were contacted for this study throughout Canada to gain an appreciation of the available pool of primary health-care/family all-ages NPs. At the time of data collection, 796 PHC NPs were identified out of a total of 945 reported NPs.

Twenty-three respondents indicated they worked less than 60% of the time as NPs, and one respondent reported not practising clinically in any capacity; their surveys were therefore eliminated from the sample. One respondent reported current registration in the Yukon, which, at the time of data collection, reported having no registrants; this person's survey was excluded to protect against deductive disclosure.

A statistician was consulted on the data cleaning, coding and analysis. The MSQ-SF was reverse-coded. The overall integrity of the data was good. Eleven respondents completed less than two-thirds of the survey and their results were therefore excluded from analysis. For surveys that had less than a third of the questions unanswered, missing values were imputed. Imputation of missing values entailed replacing the missing value with a mean score for that subscale where appropriate. The mean score of the remainder of the respondent's answers was substituted for the missing data in order to provide a true representation of the phenomenon in question. For cases where data were estimated by inputting the mean of the subsection, the data were not included when calculating reliability and validity testing.

In order to calculate the means in a way that is comparable across tools, both tools were converted into percentiles. In order to compute the percentage of the factors to base it on 100, the following formula was used:  $\text{MSQ-SF value} / 5 * 100$  (after reverse-coding) and  $\text{MNPJSS value} / 6 * 100$ .

## Results

The sample consisted of 162 Canadian NPs currently working in a clinical capacity at least 60% of a full-time equivalent position. Table 2 presents descriptive statistics of the sample broken down by jurisdiction. The sample represented nine different regulatory jurisdictions, with most respondents ( $n=30$ , 18.5%) working in Ontario; the least representative sample of respondents ( $n=6$ , 3.7%) was from Alberta. Table 3 provides some additional descriptive statistics for the sample, while Table 4 presents the initial NP education of the respondents. Almost 40% ( $n=64$ ) of the sample were practising in community health centres, and 75.9%

( $n=123$ ) had responsibility in working with families/all ages. The NPs surveyed represented 53.1% ( $n=76$ ) urban/city practice and 46.9% ( $n=86$ ) rural/remote practice locations.

**Table 2.** Current registration and employment of sample ( $n=160$ )

Regulatory District	Frequency	Percentage
Newfoundland and Labrador	19	11.7
Nova Scotia	17	10.5
New Brunswick	16	9.9
Ontario	30	18.5
Manitoba	9	5.6
Saskatchewan	25	15.4
Alberta	6	3.7
British Columbia	26	16.0
Northwest Territories and Nunavut	12	7.4

**Table 3.** Descriptive statistics for demographics: age, RN and NP experience, salary and hourly wage

Demographic	Mean ( <i>SD</i> )	Median	Minimum	Maximum
Age ( $n=161$ )	44.4 (7.3)	45	28	62
RN Experience ( $n=157$ )	20.2 (9.1)	21	1	40
NP Experience >= 1 yr ( $n=136$ )	3.9 (2.6)	3	1	12
NP Experience < 1 yr ( $n=23$ )	3.7 (2.9)*	2*	1*	10*
Yearly Salary ( $n=131$ )	80,778 (12,562)	80,080	14,000	118,000
Hourly wage ( $n=114$ )	41.01(6.04)	41.00	29.00	56.45

*Note.* Money is reported in Canadian dollars. RN experience and NP experience >= 1 year is measured in years. NP experience < 1 year is measured in months. \*=months

**Table 4.** Current registration and employment of sample (n=160)

Initial NP Education	Frequency	Percentage
Direct practice preceptorship only	8	4.9
Outpost nursing program – university based	16	9.9
Outpost nursing program – government based	9	5.6
Post-diploma combination BScN/NP degree	14	8.6
Post-baccalaureate diploma/certificate	42	25.9
Post-master's diploma/certificate	3	1.9
Master's degree in advanced practice nursing	60	37.0

**Question 1: What is the current level of job satisfaction for NPs?**

For this survey, overall job satisfaction was measured using the single-item question in the socio-demographic section of the survey. This single item asked respondents to rate their overall satisfaction as an NP on a scale of 0 (very dissatisfied) to 100 (very satisfied). Results indicated that the NPs were satisfied to highly satisfied ( $M=74.9$ ,  $SD=22.5$ ) overall in their role.

**Question 2: What is the relationship between extrinsic job satisfaction factors and the level of job satisfaction?****Question 3: What is the relationship between intrinsic job satisfaction factors and the level of job satisfaction?**

First, descriptive data were calculated for each instrument. Table 5 presents the descriptive data for the MNPJSS subscales and for the MSQ-SF intrinsic and extrinsic factors.

**Table 5.** Descriptive statistics for overall satisfaction, MNPJSS and MSQ-SF (N=162)

Scale & Subscales	Items	Mean	SD	Minimum	Maximum
Overall Satisfaction 0 not at all –100 very) MNPJSS	1	74.9	2.5	0	100
(1 very dissatisfied – 6 very satisfied) Intrinsic Subscale	44				

2. Challenge & Autonomy	10	4.5	.9	1.0	6.0
4. Professional Growth Extrinsic Subscale	5	3.8	1.1	1.0	6.0
1. Intrapractice Partnership & Collegiality	14	3.8	1.1	1.0	6.0
3. Professional Social & Interaction	8	4.2	.9	1.9	6.0
5. Time	4	4.2	1.1	1.0	6.0
6. Benefits MSQ-SF (1 very satisfied – 5 very dissatisfied)	3	4.1	1.2	1.0	6.0
Intrinsic Subscale	10	3.7	.6	2.0	5.0
Extrinsic Subscale	10	3.7	.7	1.7	5.0

To answer research questions 2 and 3 about the relationship between extrinsic job factors and level of job satisfaction, Pearson's correlations were calculated using the overall satisfaction score as a measure of satisfaction and the scores of the MNPJSS subscales of the two main dimension factors (internal and external). Correlations ranged from a weak relationship with benefits (factor 6,  $r=.12$ ,  $p=.000$ ) to a moderate relationship with intrapractice partnership/collegiality (factor 1,  $r=.45$ ,  $p=.00$ ).

Pearson correlations for the MSQ-SF found a moderate relationship ( $r=.45$ ,  $p<.001$ ) between the extrinsic factors and satisfaction and a strong relationship between satisfaction and the intrinsic factor ( $r=.52$ ,  $p<.001$ ). There were no other significant correlations found between variables.

Question 4: Which intrinsic or extrinsic job satisfaction factors have the most influence on the level of job satisfaction?

Multiple regression analysis was conducted using MNPJSS subscales to predict which factors had the most influence on overall job satisfaction. The regression results indicated that the overall model significantly predicted 27% of the variance in job satisfaction (adjusted  $R^2=.27$ ,  $F=8.73$ ,  $p<.001$ ). Two factors were shown to have the most influence on overall level of job satisfaction for NPs. Beta weights indicated that only two predictors contributed significantly to the model. The extrinsic factor of intrapractice partnership and collegiality (factor 1) was found to be significant (beta = .30,  $t=2.4$ ,  $p=.02$ ). The second significant factor was challenge and autonomy (factor 2) (beta = .28,  $t=2.1$ ,  $p=.04$ ).

Multiple regression analysis was also conducted using the two factor dimensions

of the MSQ-SF to predict which factor dimension had the most influence on overall job satisfaction. Regression results indicated that the overall model significantly predicted 23% of the variance in job satisfaction. The intrinsic factor was shown to be the only predictor that contributed significantly to the model ( $\beta = .44$ ,  $t=3.9$ ,  $p<.001$ ).

### Study limitations

This study described PHC NPs only; thus, the results may not be applicable to specialty NPs across Canada. Over 95% of the respondents were female, allowing for a potential gender bias. There was also a non-response limitation. The low response rate limits generalizability to all Canadian NPs.

The actual method of the study proved to be a limitation. This study was conducted online and not offered in a pen-and-paper format, which may have discouraged NPs who are not comfortable completing surveys online. The characteristics of those who chose to answer the mail-in surveys may be different from those of the non-responding population, resulting in response bias. In addition, this study relied on participants to self-report their satisfaction levels. NPs that were more satisfied or more dissatisfied may have naturally been drawn to complete the survey.

### Discussion

Job satisfaction is integral to the retention of health professionals. This study differentiated factors into several scales of satisfaction to provide a national perspective of factors that lead to satisfaction for Canadian NPs. As expected, the NPs surveyed were satisfied overall with their jobs ( $M=74.9$ ,  $SD=22.5$ ). This finding is consistent with the IBM (2003) study, which described NPs in Ontario as being generally satisfied with their jobs (3.84/5.0). Only 9.3% of those surveyed reported job satisfaction of less than 50 on a scale of 1 to 100; 42% described their overall satisfaction as 80 or higher and 27.4% reported their satisfaction as 98 or higher. This distribution is meaningful and shows a positive overall level of satisfaction.

Fifty-three point one per cent of NPs sampled identified that they worked in a rural/remote area. This is a broader distribution than noted by MacLeod and colleagues (2004), who reported that 18% of all RNs employed in Canada worked in rural areas. It is noteworthy that only 8% of licensed NPs identified community health as their primary area of responsibility in the 2007 health providers report (CIHI 2007), in contrast with the findings of this study which indicated that 75.3% ( $n=122$ ) of respondents worked in a

community health setting. Further research could examine whether this is an employment trend or simply an incidental finding based on the sample.

This sample is representative of an educated group, considering that 77.1% ( $n=142$ ) indicated preparation at the baccalaureate level or higher. There currently is variability across the country and among programs in terms of the exit credential being granted. There have been varied levels of initial NP education offered across the country, with some programs currently in transition to a master's degree as the exit credential for NP programs (CNA 2006). Fifty percent ( $n=81$ ) of the respondents reported having completed a master's degree, a figure that represents an increase compared with the latest demographic data reported by the CIHI, where only 22.9% of Canadian NPs had a master's degree as their highest educational attainment (CIHI 2007). Currently, both the Canadian Nursing Association and the Canadian Association of Schools of Nursing recommend graduate education as the exit credential for NP programs (CNA 2006).

The lowest satisfaction scores in this study for both the MSQ-SF and the MNPJSS were the extrinsic factors of pay and monetary issues. This finding is congruent with the literature. Extrinsic factors, namely compensation, were the greatest dissatisfiers in studies by Tri (1991), Keith and colleagues (1998), Misener and Cox (2001) and Schiestel (2007). Given that approximately 50% of the sample worked in rural/remote areas, the importance of appropriate remuneration cannot be overstated. The commitment both personally and financially to increase the level of education to become an NP is significant. If NPs are not compensated appropriately, there may be less incentive for RNs to enter the NP workforce.

### **Conclusion and Recommendations**

A number of recommendations were developed based on this study. To continue the work initiated by the Canadian Nurse Practitioner Initiative to develop a national NP database to support HHR planning, the conclusion of this study is to garner additional governmental, regulatory and employer support to further the development of HHR-related databases specific to NPs. Such a resource would prove invaluable in addressing NP recruitment, retention and deployment recommendations from the research.

It is clear that the geography in Canada creates challenges for the delivery of primary healthcare services to those living in rural and remote communities (CNA 2006). Recruitment and retention in these unique communities

are essential because the NP is often the key healthcare provider. MacLeod and colleagues (2004) stated that the health of rural communities is, in part, dependent upon a sustained rural health workforce that provides accessible and high-quality healthcare. Given the higher proportion of NPs working in rural/remote settings, a recommendation based on the findings of this study is to conduct a coordinated review of specific job satisfaction factors and skill requirements that influence their unique practice.

NP satisfaction has been identified as an outcome that is important for monitoring the early stages of role implementation and integration. There has been countrywide research into the barriers to the integration of NPs in primary healthcare (Hanrahan et al. 2001; IBM 2003). Future research should be targeted to addressing those issues identified as barriers to integration as well as predictors of job dissatisfaction. In an overall context for all levels of decision-makers and policy developers, focus is needed on the implementation of the NP role in order to reduce barriers to integration. Researchers need to coordinate with decision-maker partners, employers and practising clinicians in order to implement these recommendations. It is clear that there are many key areas to address; however, the art is in the deployment of valuable resources to implement positive change.

In analyzing the specific factors where means were high, one can see opportunities for designing positions to implement future NP roles effectively. In examining the highest indicators – challenge in work, autonomy, sense of accomplishment, time in direct care and provision of steady employment – the implications for policy design are evident. These areas could become key foci for negotiating job descriptions and in management-related HHR activities such as exit interviews and ongoing implementation strategies.

A stated limitation of this study was the low response rate. Although it is difficult to predict how that bias influenced the results, replication of aspects of this research within jurisdictions and employment settings would be a future research direction. The literature has large Canadian gaps in studies examining job satisfaction, with the notable exception of the 2003 IBM study that examined NPs in Ontario. Given the trend towards national credential accreditation and the fact that each jurisdiction has its unique legislation, standards of practice and drug schedules, there is a risk in basing national policy decisions on data from one jurisdiction alone. Further studies should also attempt to ascertain the influence that jurisdictional regulations (such as drug schedules) have on overall satisfaction. Although a single-item job

satisfaction indicator appears to be a sufficient starting point, more than one instrument is required to determine the aspects of job satisfaction that policy makers and employers can influence.

The key predictor areas taken from this study can be placed in the context of human health and HHR planning. Decision-makers and funders can allocate financial resources in the planning and forecasting stages to implement system improvements for provider outcomes. These areas can be either the intrinsic components of pay, advancement and ability utilization, or they can be issues related to supervisors, working conditions or recognition. Health administrators could improve job satisfaction by facilitating small efforts such as NP networking, peer review and involvement in policy decision-making. However, ad hoc management in singular employment areas does not by itself promote the integration of the NP into the Canadian health system. To further the profession, a constant, pan-Canadian approach to using the HHR Planning Framework will be crucial at all levels of administration.

Policy makers in the employment setting could consider the implementation of standard job satisfaction measurement tools into the workplace within accreditation programs; this would address some of the non-response bias limitations of this study and provide a base data set for employers to work with. As this body of knowledge increases, educational institutions and NP curriculum developers can integrate concrete role transition and practice readiness content into the curricula in order to better prepare new NP graduates to meet the challenges of Canadian practice.

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