**University of Alberta**

# Therapeutic Commitment and Care of Persons with Mental Illness: A Survey of Nurse Practitioners' Role Perceptions

by

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# DEDICATION

This is dedicated to my husband Jim and children, Patrick, Emily and Katie and to my parents, Vince and Anne Desmond, all of whom shape the core of who I am.

ABSTRACT

This study explored Canadian nurse practitioners' (NPs) levels of therapeutic commitment (TC), role competency (RC) and role support (RS) when caring for persons with mental illness and mental health problems. Knowledge and experiential factors that impact these levels were examined and a model of therapeutic commitment was tested. A self-administered mail survey was sent to 1272 NPs from all Canadian jurisdictions except the Yukon, Saskatchewan and Quebec. The survey was comprised of the *Mental Health Problem Perceptions Questionnaire (MHPPQ),* demographic data and open-ended questions. Using Dillman's Tailored Design Method, the target population was contacted 4 times: pre-notice letter, first survey, reminder letter, and repeat survey. Of the 1272 potential participants, 680 (57.2%) useable surveys were received. Out of a possible maximum score of 7, NPs reported mean levels of 5.05 (SD 0.83) on the TC, 5.02 (SD 0.88) on the RC and 4.86 (SD 1.27) on the RS subscales. As hypothesized, correlations between the three subscales were demonstrated with RC and TC being the most strongly associated ($r = .754$, $p < .001$). A composite variable, Confidence to Manage, which examined NPs' confidence to manage 7 mental health disorders and suicide ideation was developed. Scores for this variable correlated with TC, RC and RS scores. Feeling ill-equipped to work with this population, knowledge of community mental health services, ratings of relevant theoretical and clinical NP education, previous mental health and NP work experience were all positively correlated with higher levels of the 4 subscales. Differences in categories for population size of the community the NP

worked in, frequency of collaboration for psychiatric reasons, time since the NP accessed mental health education and highest level of nursing education were found to impact levels of TC, RS, RC and Confidence to Manage. A large number of NPs reported feeling inadequately prepared to manage the care of persons with mental illness and recommended either adding or increasing mental health education in their NP programs. Most NPs saw the care of this population as part of their role and acknowledged the need for increased support for persons with mental health issues.

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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION ........ 1

CHAPTER 2: LITERATURE REVIEW ........ 6
Mental Illness in Canada ........ 6
Prevalence ........ 6
Health Care Services ........ 6
Co-morbidities and Premature Mortality ........ 12
Nurse Practitioners Caring for Those With Mental Illness ........ 15
Education of Nurse Practitioners ........ 15
Perceived Competence ........ 18
Theoretical Underpinnings ........ 22
Summary ........ 29

CHAPTER 3: RESEARCH DESIGN AND METHOD ........ 31
Survey Methodology ........ 31
Dillman’s Tailored Design Method ........ 34
Survey Instrument ........ 36
Statistical Power ........ 43
Plan to Manage Missing Data in the *MHPPQ* ........ 44
Sample ........ 45
Inclusion Criteria ........ 45
Sampling Technique ........ 45
Ethical Considerations ........ 52
Summary ........ 54

CHAPTER 4: RESULTS ........ 55
Response Rate ........ 55
Description of Sample ........ 56
Past and Present Mental Health Setting Work Experience ........ 59
Education ........ 60
Knowledge About Local Community Mental Health Services ........ 61
Work Involving Persons with Mental Illness and Mental Health Problems ........ 61
Correlations Among Continuous Variables, Education, Experience, and Knowledge ........ 63
Confidence to Manage Specific Mental Health Disorders and Problems ........ 63
Therapeutic Commitment, Role Support, and Role Competency ........ 65
Reliability of the *MHPPQ* ........ 65
Therapeutic Commitment, Role Support, and Role Competency Scores ........ 66
Correlations Between Subscales of the *MHPPQ* ........ 67
Confidence to Manage MH Disorders ........ 68
Correlation of *MHPPQ* Subscales and Other Variables ........ 69

Comparison of Categorical Variables by Mean Scores for *MHPPQ* Subscales and Confidence to Manage ....................................................70
Percentage of Time Spent Working with Persons with Mental Illness and/or Their Families.......................................................................71
Therapeutic Commitment........................................................71
Role Competency ........................................................................71
Role Support..............................................................................73
Confidence to Manage...............................................................73
Frequency of Consultation/Collaboration for Psychiatric Issues ..................74
Therapeutic Commitment........................................................75
Role Competency ........................................................................75
Role Support..............................................................................76
Confidence to Manage...............................................................76
Highest Level of Education ...........................................................76
Population Size of Community Where NP Works ........................................77
Therapeutic Commitment........................................................77
Role Competency ........................................................................77
Role Support..............................................................................80
Confidence to Manage...............................................................80
Time Since Participation in MH Education Session......................................80
Therapeutic Commitment........................................................80
Role Competency ........................................................................82
Role Support..............................................................................82
Confidence to Manage...............................................................82
Past Employment Experience in a MH Setting as a Registered Nurse...........83
Past Employment Experience in a MH Setting as a Nurse Practitioner.........84
Status of Employment..................................................................86
Unhelpful Questions ....................................................................87
Open-Ended Questions .................................................................87
Question 10a: Describe How Your NP Training Prepared You to Work With Persons With a Mental Illness (Including Mental Health Problems)..................................................................................90
Aspects of MH Education in the NP Program ................................91
Identified Gaps in MH Education ...................................................91
Specialty-Specific MH Education....................................................92
Benefits of MH Education in Clinical Settings...............................93
Generalist Approach to NP Education ............................................93
Curriculum Design .........................................................................94
Other Factors That Contributed to Mental Health Knowledge........95
Question 10b: What Changes if Any Would You Suggest Be Made to This Component of the NP Training Program?.................................97
Make No Changes to the NP Program ............................................97
Not Sure or Do Not Know What Recommendations to Make.........98
Add or Increase Education Related to Mental Health......................98
Specific Curriculum/Program Design Recommendations .............100
The Role of Continuing Education................................................101

Specialty Education ........ 102
Question 11: Is There Anything Else That You Would Like to Comment on About Your Working With Persons With Mental Illness (Including Mental Health Problems)? ........ 103
Role Perceptions in Regards to Caring for Persons With Mental Illness ........ 103
Legislation Issues ........ 105
Relationship Between Mind and Physical Care ........ 105
Accessing Mental Health Care in a Primary Health Care Setting ........ 106
Available Supports ........ 106
Challenges in Providing Care ........ 107
Lack of MH Resources ........ 108
Stigma ........ 109
Education Needs and Gaps ........ 110
Value of Past Learning Experiences ........ 111

CHAPTER 5: DISCUSSION ........ 112
A Snapshot of Canadian NPs ........ 112
The Therapeutic Commitment Model ........ 114
Role Support, Role Competency, and Therapeutic Commitment ........ 117
Limitations ........ 123
Future Research ........ 125
Implications for Education ........ 127
Conclusions ........ 129

REFERENCES ........ 130

APPENDIX A: COMPARISON OF REPORTED PSYCHOMETRIC TESTING AND RESULTS OF RESEARCH USING THE *MHPPQ* ........ 138

APPENDIX B: SURVEY QUESTIONNAIRE AND MENTAL HEALTH PROBLEMS PERCEPTION QUESTIONNAIRE ........ 140

APPENDIX C: FIRST CONTACT LETTER ........ 148

APPENDIX D: SECOND CONTACT LETTER ........ 149

APPENDIX E: THIRD CONTACT LETTER ........ 150

APPENDIX F: FOURTH CONTACT LETTER ........ 151

APPENDIX G: RESEARCH LICENSE AURORA RESEARCH INSTITUTE ........ 152

APPENDIX H: SAMPLE LETTER SENT TO NURSES ASSOCIATIONS AND CEOS OF NWT HEALTH DISTRICTS ........ 155

APPENDIX I: UNIVERSITY OF ALBERTA HREB ETHICAL APPROVAL FORM ....................157

APPENDIX J: STANTON TERRITORIAL HEALTH AUTHORITY REVIEW OF RESEARCH APPLICATION ....................158

LIST OF TABLES

Table 1. Contact Timings and Content of Each Contact ......................................36

Table 2. Changes Made to the MHPPQ..............................................................42

Table 3. Administrative Processes Required to Access NP Contacts....................47

Table 4. Number of NPs per Jurisdiction Who Met Inclusion Criteria, Responded and Response Rate ..................................................................51

Table 5. Demographic Description of Sample (N = 680).....................................57

Table 6. Primary Work Settings (N=680)..........................................................58

Table 7. Past Employment Experience in a Mental Health Setting as an RN and NP.........................................................................................59

Table 8. Length of Time Since Participation in Mental Health Education (n=674).......................................................................................61

Table 9. Percentage of Time Spent Working with Persons with Mental Illness or their Families (n=675)............................................................62

Table 10. Frequency Accessing Consultation or Collaboration (n = 626) ............62

Table 11. Frequency of Feeling Ill- Equipped (n=529).......................................63

Table 12. Pearson Correlations Summary Table, Knowledge and Work Experience (n=640-678) .............................................................64

Table 13. Mean Ratings of Confidence to Manage MH Issues, Range 1-7...........65

Table 14. Pearson Correlations Summary Table, Mental Disorders and Suicide Ideation (n= 666- 675) ..................................................................66

Table 15. Correlations Between Confidence to Manage and MHPPQ Subscales...................................................................................68

Table 16. Correlations Between Knowledge and Experience Variables for MHPPQ Subscales and Confidence to Manage, Using Pearson's r (n=649-667) ...................................................................................69

Table 17. Mean Scores for MHPPQ Subscales and Confidence to Manage by Percentage of Time Working With Persons with Mental Illness and/or Their Family (n= 667-672).......................................................................72

Table 18. Mean Scores for MHPPQ Subscales and Confidence to Manage by Frequency of Accessing Consultation/Collaboration (n=619-622) .......................74

Table 19. Mean Scores of MHPPQ Subscales and Confidence to Manage by Highest Level of Nursing Education (n= 669-673) ..............................................78

Table 20. Mean Scores for MHPPQ Subscales and Confidence to Manage by Community Population Size where NP Works.....................................................79

Table 21. Mean Scores for MHPPQ Subscales and Confidence to Manage by Time Since Participation in MH Education (n= 668- 672)...................................81

Table 22. Mean Scores for MHPPQ Subscales and Confidence Manage by Past Employment as RN in MH Setting (n=658-662) ...........................................84

Table 23. Mean Scores for MHPPQ Subscales and Confidence to Manage b Past Work Experience as an NP in an MH setting.................................................85

Table 24. MHPPQ Subscales and Confidence to Manage by Status of Employment..........................................................................................................86

LIST OF FIGURES

Figure 1. Therapeutic Commitment, Role Securing and Effective Interventions by District Nurses (Lauder, Reynolds, Reilly, & Angus, 2000, p. 222). ....................27

Figure 2. Returned Surveys and Calculated Response Rate. ....................56

# CHAPTER 1

# INTRODUCTION

It has been shown that for a variety of reasons, persons with mental illness do not receive the same level of health care as those without (Druss, 2007; Druss, Bradford, Rosenheck, Radford, & Krumholz, 2000; Vreeland, 2007). An ineffective patient-provider relationship is one type of obstacle that can adversely impact access to health care for an individual with a mental illness. Some health care providers are less likely to take on the care of certain subgroups of persons with mental illness (Fleury, Bamvita, Farand, & Tremblay, 2008).

It has been hypothesized that positive relationships between health care professionals and their patients lead to positive outcomes. Psychiatric inpatients identified a positive relationship with their nurse as the “cornerstone of their inpatient care” (Forchuk & Reynolds, 2001, p. 46). Relationships that did not work well were described as painful experiences, with patients divulging strategies of mutual avoidance between themselves and their nurse. Similarly, Kai and Crosland (2001) found that the development of positive therapeutic relationships with professionals was essential when patients interact with both primary care and mental health services. Therapeutic relationships were characterized by professionals demonstrating listening skills, empathy and understanding. It was found in a Canadian study that long term psychiatric in-patients could be discharged to the community much sooner if they were supported by an ongoing therapeutic relationship with in-patient care providers until a similar relationship

could be developed with community providers (Forchuk, Martin, Chan & Jensen, 2005).

Positive relationships with health care providers are linked to the concept of therapeutic commitment (Lauder, Reynolds, Reilly & Angus 2000). Therapeutic commitment is defined as, “a predisposition to working therapeutically with people who have mental health problems and as a prerequisite for effective therapeutic interventions” (Lauder, Reynolds, Smith & Sharkey, 2002, p. 484). Lauder, Reynolds, Reilly and Angus (2000) proposed a theoretical model of therapeutic commitment in which the core concepts of role support, role competency and therapeutic commitment are factors that influence generalist nurses’ therapeutic commitment to working with persons with mental health problems. Significant positive correlations were found between therapeutic commitment and role support, therapeutic commitment and role competency, and role support and role competency in studies that tested the model with registered general nurses working in acute general health care hospitals, post registration undergraduate nursing students and district nurses working in rural settings (Lauder, Reynolds, & Reilly, 2000; Angus, Lauder, & Reynolds, 2001a; Angus, Lauder, & Reynolds, 2001b).

Approximately one fifth of Canadians, of all ages, and all cultural, economic and educational groups are affected by mental illness (Health Canada, 2002). It has been demonstrated in international studies that individuals with mental illness do not access the same level of care as those without. For example, in the United States, veterans with a mental illness access fewer preventative

health care services than those without a mental illness, especially when a mental illness and substance use occur together (Druss, Rosenheck, Desai, & Perlin, 2002). Similarly, in another American study, 43 older women with schizophrenia recruited from an outpatient rehabilitation clinic were interviewed about their health status and preventative health care (Dickerson, Pater & Origoni 2002). It was found that they accessed fewer mammograms compared to an age-matched cohort. Additionally, the researchers found that more women with schizophrenia were overweight or obese and they had higher rates of smoking. Deaths from both natural and unnatural causes have been found to be higher among those with schizophrenia than in the general population (Brown, Inskip, & Barraclough, 2000).

The nurse practitioner (NP) role is becoming more prevalent in Canada. Most provinces and territories have passed legislation needed to implement the role and are working to strengthen support for NPs. The care of those with mental illness falls within the scope of NP practice and therefore NPs have a tremendous opportunity to positively impact the health of those with mental illness. However, the therapeutic commitment of NPs toward persons with mental illness and mental health problems has not been studied.

Because self-perceived role competency and role support are theorized as affecting therapeutic commitment, an understanding of these factors is also required in order to provide information about existing relationships between NPs and patients with mental health concerns. This model of therapeutic commitment has been used with a district nurse sample in Scotland and rural

nurses in Australia, but not with Canadian NPs. To understand more about the level of therapeutic commitment NPs have toward persons with mental illness, a national survey of NPs was conducted. The *Mental Health Problems Perception Questionnaire (MHPPQ),* the tool used to operationalize the concepts of therapeutic commitment, role support and role competency was adapted to be used with a nurse practitioner population.

Utilizing Dillman's Tailored Design Method (2007), a self-administered postal survey was employed to address the following research question: How do NPs registered in Canada rate their levels of therapeutic commitment, role competency and role support when working with persons with mental illness (this includes mental health problems)? The findings from the current study were used to test the aforementioned model. Because previous research with registered nurses has supported this model, the following hypotheses were tested:

1. Using the *MHPPQ*, self ratings by Nurse Practitioners of role support and therapeutic commitment will be positively correlated.
2. Using the *MHPPQ*, self ratings by Nurse Practitioners of therapeutic commitment and role competency will be positively correlated.
3. Using the *MHPPQ*, self ratings by Nurse Practitioners of role support and role competency will be positively correlated.

Other related questions were:

1. How do NPs describe their levels of theoretical and clinical preparation for working with persons with mental illness?

2. How do NPs rate their levels of knowledge about community resources that provide care for persons with mental illness?
3. What changes if any, would NPs recommend to the mental health component of the NP curriculum?

Knowing more about how NPs rate their levels of therapeutic commitment, role support and self-perceived competence is important because it will help to guide future development of the role and supports for the role, including education for entry-to-practice and continuing competency. This information will guide curriculum development, highlighting factors that promote effective patient-NP relationships. With such a significant percentage of the population experiencing a mental health disorder at some point in their lives, we as a profession are obligated to ensure that those in the NP role are as effective as possible in their practice.

# CHAPTER 2

# LITERATURE REVIEW

## Mental Illness in Canada

### *Prevalence*

The prevalence of mental illness in Canadians is high; in the 2002 Canadian Community Health Survey it was found that 10.2% of men and 11.7% of women met criteria for mood or anxiety disorders or substance dependence during the previous 12 months (Government of Canada, 2006, p. 31-32). In addition, 24.1% of women and 17.0 % of men met criteria for mood or anxiety disorders, or substance dependence during their lifetime. Prevalence rates of other less common mental illnesses such as bipolar disorder and schizophrenia were 2.4% and up to 2.0% respectively (Government of Canada, 2006). Attention deficit/hyperactivity disorders have a cumulative incidence of 7.5% in children between the ages of 5 and 19 years (Barbaresi et al., 2004). The prevalence of dementia in the Canadian population in 2008 was 1.5% and this is expected to rise to 2.8% by the year 2038 (Alzheimer Society, 2010). At present, the economic impact of mental illness in the Canadian workplace is estimated to be 33 billion dollars annually (Kirby, 2009).

### *Health Care Services*

While not all individuals are necessarily treated for their mental illnesses by primary care providers, they still require basic health care. Many access care in other settings such as specialized clinics and in-patient settings where NPs work.

Any provision of care will necessitate an understanding of how specific mental illnesses and treatment plans interact with overall health.

Ontario family physicians report that the identification and management of mental health and psychosocial problems takes from 25% to 50% of their time (Craven, Cohen, Campbell, Williams, & Kates, 1997). Furthermore, unexpected psychosocial and psychiatric problems play havoc with their schedules, requiring frequent shifts between physical and mental health problems during the course of a visit. The rate of individuals in Winnipeg who received treatment from their family physician (FP) for mental health problems for the fiscal year 2000-2001 was 224 per 1000 adult population (Watson, Heppner, Roos, Reid, & Katz, 2005). Those treated for a major mental illness made an average of 9 visits annually to their FP for all health concerns. Individuals in the lowest socio-economic status (SES) made 50% more visits than those in the highest SES. The rate of all those accessing treatment annually increased by 29% over the study time period of 1992-1993 to 2000- 2001. Similarly, in Quebec, Fleury, Bamvita and Tremblay (2008) found that one-quarter of all patient visits to general practitioners were for mental health reasons. These findings affirm the role primary care plays as an important access point for care of mental health problems and disorders.

In an American study it was found that almost one-third of the adults who presented to a Primary Care clinic with a physical symptom had a mental disorder (Jackson, Passamonti, & Kroenke, 2005). However, at a 5 year follow-up only one-third of those who had been identified self-reported that their mental illness had been diagnosed or treated. These studies suggest that recognition rates

of mental disorders continue to remain low. Certainly the need for collaboration between primary care and mental health care providers has been identified (Druss, Rohrbaugh, Levinson & Rosenheck 2001; Trevena, Simpson, & Nutbeam, 2003; Lewis, Andersen, & Gelberg, 2003; Levinson- Miller, Druss, Dombrowski, & Rosenheck, 2003).

Goal Five of the Framework for a Mental Health Strategy for Canada is that "People have equitable and timely access to appropriate and effective programs, treatments, services and supports, that are seamlessly integrated around their needs" (Mental Health Commission of Canada, 2009, p. 115). This would apply to all needs, both physical and mental. As health care is provincially controlled, one of the challenges becomes equitable access across the country. An analysis of funds allocated to mental health care and general medical care in Alberta, prior to and after the integration of previously independent mental health services, reported that after the two services were integrated, expenditures in general medical care increased while those for mental health services did not (Block et al., 2008).

A survey of 398 general practitioners (GPs) from several regions in Quebec explored the factors associated with GPs taking on the primary care of persons with common mental disorders such as anxiety, depression, personality disorders and adaptation disorders (Fleury, Bamvita, Farand, & Tremblay, 2008). A number of factors were related to increased likelihood of taking on these patients. Of particular interest were two variables: perception that continuing medical education related to mental illness had enhanced the GP's ability to take

on the care of these persons and the number of years since graduation. Those with concurrent illnesses of substance abuse and mental illness were less likely to be taken on. Paradoxically, those GPs who considered working in partnership with hospital psychiatric teams to be very important and those who stated that their relationship with the teams was very satisfying were less likely to take on the care of these persons. It is unclear why those physicians were unlikely to take on this care.

A subsequent publication from the same study identified factors associated with GPs taking on patients with serious mental disorders (SMD), including schizophrenia, bipolar and delirium (Fleury, Bamvita, & Tremblay, 2009). Of all patients visiting their GPs, only about 10% of those visits concerning mental health problems were for SMD. One third of patients with SMD were followed continuously by their GPs. Three factors associated with GPs taking on the care of those with SMD included: 1) the GP's level of expertise treating these patients; 2) their inter-professional relationship with other providers, including frequency of referral for joint follow up with other resources; and 3) their clinical practice profile, as in proportion of visits for supportive therapy and medication follow up. In this study, the concepts 'commitment to working with this population' and 'willingness to take on the care of this group' might be seen as being related.

The quality and quantity of physical health care services provided to individuals with mental health illnesses has been evaluated. Many of the studies are in American settings which limit their applicability to a Canadian setting because of differences in the two health care systems. Nevertheless, American

studies are of value because identified areas of concern may prompt examination of similar issues in Canada. A South Carolina survey about barriers to, and health care received in the previous 6 months, reported that almost 2/3 of individuals with severe mental illness (n = 59) were unable to identify their primary care providers by name (Levinson-Miller, Druss, Dombrowski, & Rosenheck, 2003). About 40% reported that coordination between their primary care and mental health providers was poor; 45% reported that their mental health worker did not ask them about medical issues and 39% said that their medical care provider did not ask them about mental health issues. In addition, when compared to normative population scores, their quality of primary care which included measures of comprehensiveness, ongoing care, coordination and care provided at first contact was lower. There was no evidence to suggest that the responders were reluctant to access health care. These authors suggest that simply providing access to a primary care practitioner is not enough.

Characteristics of primary care physician visits for persons with severe mental illness (SMI) (n = 2,397) across the United States from 1993-1998 were studied (Daumit, Pratt, Crum, Powe, & Ford, 2002). Compared to those without a severe mental illness, those with SMI had a higher percentage of return visits to the same practice and spent more time with their physician per visit. A chronic problem or episodic sick care were more likely to be reasons for the visit, rather than general health maintenance and periodic routine examinations. The results of this investigation suggested that those individuals with SMI who actually received primary care received comparable care to those without SMI.

In terms of preventative care, randomly selected medical records of patients with specific chronic medical illnesses (n = 113,505) from American Veteran Affairs medical centres were evaluated (Druss, Rosenheck, Desai, & Perlin, 2002). Participants were categorized according to whether or not they had a mental health or substance abuse disorder or both. It was found that all persons received about 2/3 of those preventative services for which they were eligible. The lowest numbers to receive preventative services were those with both a psychiatric and substance use disorder. Intermediate numbers of services were received by those with either a substance use or psychiatric diagnosis. Those receiving the most preventative services were those without psychiatric and or substance use disorders. Veterans with psychiatric diagnoses required more visits to obtain the preventative services.

A review of cancer screening services provided to 229 outpatients with serious mental illness who attended a Californian public mental health clinic found that of those who were eligible, more than 50% of the men had never had PSA (prostate sensitive antigen) testing done, and 25% had never had a digital rectal exam (Xiong, Bermudes, Torres, & Hales, 2008). Of those eligible men and women, 56% never had screening for colorectal cancer.

It has been reported that preventative services were provided during 11% of patient visits (n = 3,198) to office based psychiatrists and the service most often provided is blood pressure measurement (Daumit, Crum, Guallar, & Ford, 2002). This may be because several psychotropic medications affect blood

pressure. However, assessing this measure does not mean that if elevated, the blood pressure will be treated by the psychiatrist.

*Co-morbidities and Premature Mortality*

Individuals with mental illness often experience a variety of co-morbidities which place them at risk for premature mortality, however they do not always access the same level of health care services as the general population. A Scottish survey of individuals with schizophrenia (n = 102) living in supported community settings examined lifestyle habits, including diet, smoking behavior, weight and exercise rates (McCreadie & Scottish Schizophrenia Lifestyle Group, 2003). It was found that 70% of the participants were smokers and over half of those who smoked were heavy smokers. As well, 73% were obese and more than a quarter had a 10 year risk of cardiovascular disease of more than or equal to 15%.

In a study of the prevalence of other health conditions among individuals with severe mental illness (n = 147), it was found that 31% had chronic pulmonary illness (Jones, Macias, Barreira, Fisher, Hargreaves & Harding, 2004). Fifty percent were treated for 2 or more of 14 identified conditions and more than one third were treated for 3 or more conditions. One fifth was treated for 4 or more conditions. Ischemic Heart Disease (IHD) was identified in an Australian study as the major cause of excess mortality in mental health service consumers between 1980 and 1998 (Lawrence, D'Arcy, Holman, Jablensky & Hobbs, 2003). It was reported that IHD accounted for 16% of all excess deaths compared to suicide, which accounted for 8%. Hospital admission rates for mental health

service users were virtually the same as for those in the general population, yet comparatively, revascularization procedure rates were low, especially among patients with psychoses. Males who had higher rates of neurotic disorder and attempted self-harm had higher rates of admission for IHD.

Similarly, in an American study it was found that individuals with severe mental illness had lower rates of coronary revascularization procedures after a myocardial infarction despite the fact that those with mental health disorders had a lower risk of mortality at baseline compared to individuals without a mental health disorder (Druss, Bradford, Rosenheck, Radford, & Krumholz, 2000).These authors conducted a more in-depth, follow-up exploration of this phenomenon (Druss, Bradford, Rosenheck, Radford, & Krumholz, 2001). Those with a mental disorder had a 19% increase in risk of mortality over one year. However, when quality of care measures, such as medical and treatment regimes and smoking cessation counseling were included in the analysis, the association between the presence of a mental illness and increased mortality rate was not significant. Rather, deficits in the quality of care measures may explain the higher mortality rates seen in patients with mental disorders.

A study to compare treatments received for four common health problems by persons aged 55 years and older with schizophrenia (n = 119) and those without (n = 57) reported that those without schizophrenia received treatment more frequently for hypertension (93% vs. 75%), heart disease (75% vs. 38%), and gastrointestinal ulcers (100% vs. 53%) (Vahia et al., 2008). Only treatment for diabetes was found to occur less frequently among those without

schizophrenia (81% vs. 86%), however this difference was not significant. These authors concluded that older adults with schizophrenia received less than adequate medical treatment for four health problems.

Standardized mortality rates among persons with major mental illness who were cared for by the public mental health care system in 8 American states from 1997 to 2000 were found to be 1.2 to 4.9 times higher than expected (Colton, & Manderscheid, 2006). Depending on the state and year, these individuals lost an average of 13 to 30 potential years of life. Average death ages ranged from 49 to 60 years in six of seven states (Information submitted for the study varied by the state). Similar to the general population, heart disease, cancer, cerebrovascular, respiratory and lung diseases were the leading causes of death. The authors recommended that since mental health care and physical care are intertwined, attention to both is required.

Premature death rates among Caucasian persons with schizophrenia and schizoaffective disorders living in one Minnesota, U.S. county between 1950 and 1980 (N = 319) were not found to be reduced when compared to a similar study done thirty years earlier (Capasso, Lineberry, Bostwick, Decker, & St. Sauver, 2008). However, because the average age of death in the general population over that time period had extended, the actual gap between the schizophrenia/ schizoaffective population and the general population had widened.

In summary, individuals with mental illness are at risk for premature mortality, increased morbidity and decreased access to health care. There are many factors that contribute to these phenomena including under-recognition of

mental illnesses by health care providers; inconsistent treatment regimes; patients' unhealthy lifestyle choices and lack of commitment to treatment regimes; the dynamics of the patient-provider relationship; infrastructure issues, such as insurance; and communication among care providers. Nurse practitioners have expertise in the management of stable chronic illness, health promotion and disease prevention and therefore have a significant role to play in the provision of care for individuals with mental illness.

## Nurse Practitioners Caring for Those with Mental Illness

### *Education of Nurse Practitioners*

In 2008, there were 1,669 licensed NPs in Canada (Canadian Institute for Health Information, 2010). Data from the Canadian Institute for Health Information (2006) on NP highest education levels reported that of 878 NPs in 2004, 60.5 % had a Baccalaureate Degree in Nursing, 17.7% had a diploma and 21.6% had a Master's or Doctorate degree. Psychiatry and or mental health were identified as primary areas of responsibility by 1.7% of licensed NPs. An additional 3.6% identified geriatric and long-term care as primary areas of responsibility. Past clinical experience was not reported in this report and because of this it is difficult to get a comprehensive understanding of the mental health experience and expertise of Canadian NPs.

A survey of Primary Health Care nurse practitioners (n= 371) in Ontario, the province where the highest proportion of Canadian nurse practitioners are working, found 39 % of them worked with people with addiction or mental health problems (Sloan, Pong, Rukholm, & Caty, 2006). When asked to identify the

three major health problems seen in the participants' geographic area, the second most commonly mentioned health problem (41%) was mental illness/substance abuse. The most common type of health problems seen was cardiovascular disease.

A review of NP education programs across Canada reveals that most programs do not have courses specifically dedicated to mental health disorders (Sangster-Gormley, 2004). It is expected that these topics will be woven into general course work as students advance through their theoretical and clinical courses (E. Sangster-Gormley, personal communication, Nov 2006). In addition, as many NPs work in isolated settings and do not have access to psychiatric support they are reluctant to take on the care of those with a mental illness (E. Sangster-Gormley, personal communication, Nov 2006). A 2003 survey of nursing programs reported that among 17 baccalaureate nursing programs in Canada, 9 had specific mental health courses while the other 8 integrated mental health education throughout their nursing programs (Ellerton, Aston, Sheffer & Muise-Davis, 2003).

Similarly, a review of graduate nursing programs in the United States (n=206), representing almost 61% of the total number of programs, reported that only 7.3% provided programs, tracks or minors focusing on advanced practice geriatric psychiatry nursing (Kurlowicz, Puentes, Evans, Spool, & Ratcliffe, 2007.). Of the 60 schools that reported having a psychiatric/mental health graduate nursing program, only 38% indicated that they included didactic or

clinical content with respect to geriatric psychiatric nursing within their curriculum.

The challenge posed by the practice of integrating mental health or psychiatric concepts throughout any nursing education program, rather than having a specific course dedicated to this nursing specialty, is that mental health nursing's body of knowledge tends to get confused with psychosocial aspects of providing care (Wynaden, Orb, McGowan & Downie, 2000). For example, the aspects of caring for an individual who is recovering from a hip replacement may include helping the individual deal with anxiety and a low mood during the rehabilitation period. This is generally within any NP's knowledge and skill set. In contrast, providing care to an individual with schizophrenia and a substance addiction as well as diabetes and obesity induced by psychotropic medications involves mastering a specific body of knowledge. Both types of patient situations could be seen in NP practice. As a result of confusion between psychosocial aspects of care and the specific psychiatric-mental health body of knowledge, components of psychiatric care can be lost when integrated with other specialties (Wynaden, Orb, McGowan & Downie, 2000). Classroom theory and clinical experience in psychiatry have been shown to have positive effects on some of the attitudes registered nursing students hold toward individuals with mental illness (McLaughlin, 1997).

Several strategies to address the need for increased mental health knowledge in primary care nurse practitioner curricula have been discussed in the literature (Roberts, Robinson, Stewart, & Smith, 2009). One strategy is to have

mental health faculty provide increased theoretical and clinical components to the NP students. Another strategy is to dually prepare psychiatric and primary care NPs. The concept of “integrated care” seen in the American literature appears to be very similar to “shared care,” commonly discussed in the Canadian literature. Shared mental health care is implemented to promote a collaborative approach to patient care between mental health professionals and primary care providers in the work setting. Other approaches include the preparation of psychiatric-primary care NPs and the establishment of a combination psychiatric clinical nurse specialist- primary care NP role.

Time constraints and NP clinical educational placements in general clinical settings may not permit adequate exposure to psychiatric mental health conditions. In addition, and compounding the problem, psychiatric concepts may be taught by non-psychiatric clinicians. Several international mental health authorities are calling for increased mental health education in the general nursing curriculum (Clark, 2007; O’Brien, Buxton, & Gillies, 2008; McCann, Moxham, Usher, Crookes, & Farrell, 2009; Evans, 2009). Certainly, theoretical and clinical education about mental illnesses will increase the likelihood of increased competence in managing many of these illnesses.

### *Perceived Competence*

Nurse Practitioners’ prescribing practices, feelings of competence, and perceived preparedness to practice after completing their basic NP education have been evaluated in a few American studies. For example, more than half of the participants at two national NP conferences felt somewhat prepared, minimally

prepared, or very unprepared for practice following completion of their NP program (Hart & Macnee, 2007). In particular, although 90% of the respondents felt that this was a topic of substantial or utmost importance, only 22% felt that the management of mental health disease was generally or well covered.

A sample of American Psychiatric Mental Health Nurse Practitioners (PMHNP) (n=130) were surveyed about self–perceptions of role competence (Alber, Augustus, Hahn, Penkert, & DeSocio, 2009). The results were correlated to prior basic-level nursing experience and years of PMHNP practice. Benners' model, "From Novice to Expert" and the National Organization of Nurse Practitioner Faculties' entry-level competencies for PMHNP were used as frameworks to operationalize the concepts of this specialty's role dimensions and self-perceptions of competence. Significant gains in ratings of competence were seen between the categories of 0-2 years and 3-5 years of practice on six of seven role dimensions. Ratings of role competence continued to show significant gains in five of seven role dimensions beyond 10 years of practice. Longer periods of time were needed to develop a sense of competence in psychotherapy.

Shell (2001) examined antidepressant prescribing practices of 44 randomly selected American NPs, 36 of whom were Family Nurse Practitioners. It was found that 29% felt insufficiently informed to choose the most appropriate antidepressant for their patients. More than half felt that they needed more education about antidepressants. When queried about factors they considered when prescribing antidepressants, discrepancies between practice and the American Psychiatric Association (APA) guidelines were identified. In particular,

almost one-third of the NPs considered age ‘somewhat important’ whereas the APA guidelines identify age as a major consideration when prescribing antidepressants. Additionally, the guidelines recommend antidepressant treatment for 4 to 9 months once a positive response to a medication has been achieved. Reaching an optimal positive response can take an average of 4 to 8 weeks. In this study, 22% of the NPs reported prescribing antidepressant treatment for 12 consecutive weeks or less, potentially resulting in sub-optimal treatment of depression. Similarly, Campesino Flenniken (1997) investigated the psychotropic medication prescribing practices of American NPs without psychiatric training (N = 42) and their comfort related to prescribing. The author reported that of the 32 NPs prescribing psychotropics to their patients, only 19 reported feeling “fairly comfortable” and 5 felt “somewhat uncomfortable” doing so.

Patterns of mental health care provided to depressed and suicidal geriatric patients by NPs and physicians were examined and compared in an American study (Adamek & Kaplan, 2000). Both the physicians and NP groups felt more confident diagnosing depression and assessing suicidality than treating these conditions. NPs were more likely to mention lack of training in geriatric mental health and lack of expertise as barriers to providing mental health care. Interestingly, over half of the NPs rated their training in mental health as good or exceptionally good compared to one-third of physicians. Likewise, a survey of family, adult, women’s and gerontological NPs (n= 1,647) found that 65% felt adequately prepared to assess and diagnose depression in women, but only 51% believed they were adequately prepared to treat the illness (Groh & Hoes, 2003).

Lists of medications from which NPs are permitted to prescribe differ across Canada. For example, NPs in Ontario are not permitted to initiate Selective Serotonin Reuptake Inhibitors (SSRIs), a class of antidepressant medications commonly used to treat depression and anxiety (College of Nurses of Ontario, 2009). However, they are permitted to renew a prescription for a SSRI. NPs in that province are not permitted to initiate or even renew a prescription for a medication from the antipsychotic class of drugs. These medications are commonly used for schizophrenia, bipolar, and more recently, some are used as an adjuvant for depression. In contrast, New Brunswick NPs are permitted to initiate, renew and discontinue SSRIs, and renew and adjust the dosage of many antipsychotics according to a written plan that has been developed with a collaborating physician (Nurses Association of New Brunswick, 2009). As a consequence of these restrictions on practice, individual NPs may decide not to provide care for individuals with mental health disorders, especially if the NP has a very limited mental health education or experience. Additionally, these varied prescribing practices pose a challenge to standardizing NP education and competencies.

In conclusion, many NPs do not feel comfortable in, or prepared for prescribing and treating certain mental health conditions. However, no studies were found that examined Canadian NPs self-rated competence and commitment to working with this population. In terms of knowledge and competence levels, unless NPs are gaining knowledge while working in the health care system or in their clinical and theoretical training, there may be gaps in knowledge, and

possibly lower levels of clinical competence when caring for this population. It is incumbent on the nursing profession to ensure high levels of knowledge and clinical competence among its members in order to ensure appropriate care.

## Theoretical Underpinnings

There is support for the hypothesis that the therapeutic alliance between the care provider and patient does impact health outcomes (Zeber, Copeland, Good, Fine, Bauer, & Kilbourne, 2008; Cournoyer, Brochu, Landry, & Bergeron, 2007). Therapeutic alliance is, "a dynamic interactional process in which the patients and provider collaborate to carry out negotiated mutual goals in a shared partnership (Kim, Kim, & Boren, 2008, p. 85)." It might be suggested that if one is not able to build an alliance with a person, one might be less committed to working with them. Conversely, if one is not committed to working with someone, then the alliance between the two and consequently health outcomes, will suffer.

Kim and colleagues (2008) found that the quality of therapeutic alliance between patient and provider was a significant predictor of patient satisfaction. In a study of patients visiting two outpatient clinics which served military families and retirees (n= 601), therapeutic alliance explained approximately one-third of patient satisfaction. Four factors were found to account for much of the concept of therapeutic alliance. These include collaboration, empowerment, communication and integration. Integration was described as a process to reduce the power differential between provider and patient and increase respect between the two. Interestingly, the scores on the empowerment subscale used in the study were

lower than those obtained in the other three subscales. In fact only the communication and empowerment variables were consistent predictors of patient satisfaction. Additionally, number of past visits was positively related to general satisfaction where educational level was negatively related. Of note, several nurse practitioners were employed in these clinics.

Similarly, a study of perceptions of patient- provider therapeutic alliance in American Veterans with bipolar disorder (n=435) and their adherence to medical treatment reported that a good clinical relationship was linked to improved treatment adherence (Zeber, Copeland, Good, Fine, Bauer, & Kilbourne, 2008). These authors used the Health Care Climate Questionnaire to evaluate therapeutic environment and a move from a neutral to moderately positive impression on several items of the scale was associated with significant adherence gains. Providers who “conveyed confidence” in patients’ ability to be a part of their treatment, advocated regular contact and regularly reviewed treatment progress were very influential in treatment adherence.

A study of the relationship between therapeutic alliance and treatment dropout from a drug rehabilitation program in Montreal found that the treatment process, and consequently dropout rates, was moderated by factors pertinent to certain subpopulations that accessed the program (Cournoyer, Brochu, Landry, & Bergeron, 2007). Comparisons were made between a group of participants with a mental health diagnosis (n=53), those who were involved in the justice system (n=50) and a group of others (n=145), a comparison group who belonged to neither group. Those participants in the mental health group had less ability to

work actively and purposefully in treatment and rated their therapist as less understanding and involved compared to the other groups. Overall, patient commitment and the patient's ability to work actively and purposefully in treatment were determining factors of patient dropout.

The concept of therapeutic commitment is related to therapeutic alliance, in that it is one attribute the provider brings to the alliance. Therapeutic commitment is defined as, "a predisposition to working therapeutically with people who have mental health problems and as a prerequisite for effective therapeutic interventions" (Lauder, Reynolds, Smith & Sharkey, 2002, p. 484). Therapeutic commitment is based on Roger's theory of therapeutic relationship (Rogers, 1961). This interpersonal relationship is characterized by the intention of the therapist to promote the growth, development, maturity, improved functioning and life coping of the patient. Rogers suggested several therapist characteristics that promote the creation of a helping relationship. These include being trustworthy, communicating clearly, experiencing positive attitudes toward the other person, having strong boundaries, allowing the 'other' his or her own separateness, being non-judgmental and understanding, and having accepting and sensitive approaches as well as being open to accepting the other becoming something else. If the therapist is able to build a relationship based on these characteristics, the patient will discover within him or herself the capacity to use the relationship for growth. This understanding of a healthy therapeutic relationship is used to develop the concept of therapeutic commitment.

Therapeutic commitment from the provider's perspective was explored in the current study.

The model of therapeutic commitment was developed initially to explain factors which affect the commitment of those in the non-specialist community to working with individuals with alcohol problems (Shaw, Cartwright, Spratley & Harwin, 1978). Many non-specialist agents, including general practitioners, social workers and parole officers, who had no available addiction specialist support and were faced with the care of an individual with a drinking problem felt anxious about their adequacy and legitimacy. As a consequence of this discomfort, therapeutic commitment was low. The patients were referred to specialists in order to remove the individual from the non-specialist's responsibility, or questions about alcohol consumption were avoided in order to evade the need to act on the problem. Conversely, those with adequate role support and appropriate competency, developed through education and experience, had higher therapeutic commitment and consequently increased effectiveness in their role. Those who had the education but did not have adequate role support when first attempting to develop their competency did not go on to develop it and as a result, therapeutic commitment remained at a low level. Role support proved to be the one factor that could be provided to non-specialist community agents with a resultant increase in levels of therapeutic commitment. These researchers developed the *Alcohol and Alcohol Problems Perceptions Questionnaire* (Shaw, Cartwright, Spratley & Harwin, 1978) to test their model.

The *Alcohol and Alcohol Problems Perceptions Questionnaire* was adapted to test a model of therapeutic commitment among District Nurses in England who worked in rural settings with individuals with mental health problems (Lauder, Reynolds, Reilly & Angus 2000). This revised tool is called the *Mental Health Problems Perception Questionnaire [MHPPQ] (See* Appendix A). The original two concepts of adequacy and legitimacy were consolidated into the one concept of role competency. Role competency, role support and therapeutic commitment are the core concepts in this model.

1. Role competency is a self-perception "that working with mental health problems is a legitimate part of one's role and that one has the skills and knowledge to discharge this responsibility well" (Lauder, Reynolds, Smith & Sharkey, 2002, p. 484).
2. Role support is "a self-perception that one has a source of specialist support from which advice can be easily obtained" (Lauder, Reynolds, Smith & Sharkey, 2002, p. 484).
3. Therapeutic commitment is defined as "a predisposition to working therapeutically with people who have mental health problems and as a prerequisite for effective therapeutic interventions" (Lauder, Reynolds, Smith & Sharkey, 2002, p. 484).

A link between these three concepts and the effectiveness of any nursing intervention is proposed in a model, illustrated in Figure 1.

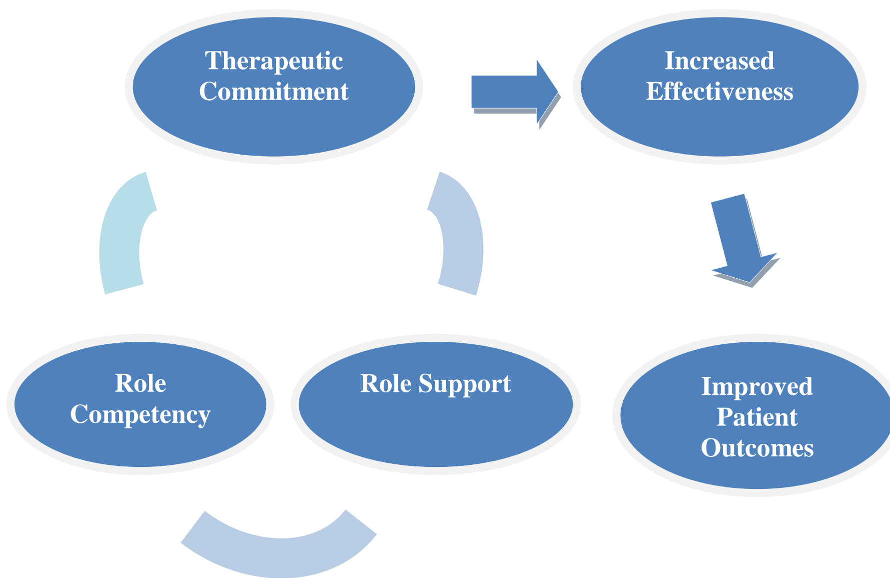


*Figure 1.* Therapeutic commitment, role securing and effective interventions by district nurses (Lauder, Reynolds, Reilly, & Angus, 2000, p. 222).

It is hypothesized that the stronger the role competency, the higher the therapeutic commitment. Adequate role support helps develop role competency. This model has been tested using populations of registered nurses and registered nursing students (Lauder, Reynolds, Reilly & Angus, 2000; Angus, Lauder & Reynolds, 2001; Lauder, Reynolds, Smith & Sharkey, 2002). See Appendix A for a comparison of the results of the studies which tested the model. Research that uses this model to examine the correlation between health outcomes and therapeutic commitment has not been found, however therapeutic relationships have been identified as essential in provider patient interactions (Forchuk & Reynolds, 2001; Kai & Crosland, 2001).

Among nursing students (n= 185) at three different stages in their education, only the level of role competency and not role support predicted therapeutic commitment (Lauder, Reynolds, Smith & Sharkey, 2002). However, one might suggest that students who are supervised in a learning situation may not see the need for role support, compared to nurses working in isolated or independent positions. In contrast, in an earlier study with District Nurses (Lauder, Reynolds, Reilly & Angus, 2000) it was found that the factors of role competency, therapeutic commitment and role support did support the model. Similarly, support for the model was found when it was tested in a population of registered nurses who were in a part-time degree program (Angus, Lauder & Reynolds, 2001).

An Australian study assessed therapeutic commitment of rural nurses (n=163) toward persons with mental illness using an adapted *MHPPQ* and reported that nursing qualification was the only factor which influenced all three factors, therapeutic commitment, role competency and role support (Clark, Parker, & Gould, 2005). This sample of nurses included Registered Nurses (RNs), Assistants in Nursing (AINs) and Enrolled Nurses (ENs). The researchers were unable to examine the effect of training and education specifically on levels of therapeutic commitment because there were multiple categories selected. Nurses who treated persons with mental illness on a daily basis had higher levels of therapeutic commitment and higher perceived levels of role support than those who treated persons less frequently. Nurses with higher levels of mental health clinical experience, AINs, those who worked in senior care, those who were

satisfied with their work or those with a family member or friend with a mental illness had higher levels of therapeutic commitment and/or role competency. Most of the nurses in this study reported low levels of role competency. More than half of the respondents reported that they had little or no training in mental health issues.

## Summary

In summary, mental illness and mental health problems are prevalent in Canada and it has been demonstrated that those who are affected by these issues do not always access and or receive optimal physical and mental health care. The Mental Health Commission of Canada has identified the need for equitable, integrated and timely access to health care programs for those with mental illness. As capable members of the healthcare team, NPs can contribute significantly to improving the health care of those with mental health problems and mental illness. However, international studies have found that NPs generally do not report high levels of perceived competence in caring for persons with mental illness.

Previous research with registered nurses and registered nursing students has supported a model of therapeutic commitment (Lauder, Reynolds, Reilly & Angus, 2000; Angus, Lauder & Reynolds, 2001; Lauder, Reynolds, Smith & Sharkey, 2002). Using the *MHPPQ,* role support, role competency and therapeutic commitment scores were found to be positively correlated.

Research was not found that examined how NPs in Canada see their role when caring for this population, including their levels of therapeutic commitment

to caring for this population, their self-perceptions of competence and the support they have in their role. The purpose of this study was to address that question: How do NPs registered in Canada rate their levels of therapeutic commitment, role competency and role support when working with persons with mental illness (this includes mental health problems)? A survey based on the model developed by Lauder and colleagues, using the *Mental Health Problems Perception Questionnaire* was administered to Canadian Nurse Practitioners.

It was hypothesized that NPs with adequate support from consulting psychiatrists, physicians or other mental health professionals, and adequate educational preparation and or relevant work experience would report a sense of role competency and increased therapeutic commitment to working with persons with mental illness. If, however, the NP did not report adequate role support or role competency, lower therapeutic commitment would be reported. Theoretically, the effectiveness of the NP's interventions would be less.

# CHAPTER 3

# RESEARCH DESIGN AND METHOD

A cross sectional correlational descriptive survey design was appropriate to answer the research question. The model of therapeutic commitment to working with persons with mental illness (Lauder, Reynolds, Reilly & Angus 2000) was the theoretical framework for the study. The *Mental Health Problems Perception Questionnaire* (*MHPPQ*) developed by Lauder and colleagues (2000) was adapted for use by a nurse practitioner population and a set of demographic questions and 3 open-ended questions were added to the *MHPPQ* to comprise the mail survey. Dillman's Tailored Design Method was used to guide the development of the demographic section, enhance sample size and distribute the surveys. The resultant questionnaire was reviewed by 7 NP students and recommended changes were incorporated. The survey was distributed through the provincial and territorial nurses associations across Canada, excluding the Yukon, Quebec and Saskatchewan. Each potential participant in seven jurisdictions received 4 postal mail contacts, including two which contained the questionnaires. Alternative distribution methods were conducted through the College of Registered Nurses of Manitoba and Association of Registered Nurses of Prince Edward Island; a discussion of these methods will follow.

## Survey Methodology

A self-administered postal survey was used to answer the research question: How do NPs rate their levels of therapeutic commitment, role competency and role support when working with persons with mental illness,

including mental health problems? Because previous research with registered nurses has supported the model of therapeutic commitment, the following hypotheses were tested:

1. Using the *MHPPQ*, self ratings by Nurse Practitioners of role support and therapeutic commitment will be positively correlated.
2. Using the *MHPPQ*, self ratings by Nurse Practitioners of therapeutic commitment and role competency will be positively correlated.
3. Using the *MHPPQ*, self ratings by Nurse Practitioners of role support and role competency will be positively correlated.

Several types of surveys were considered for the study, including self-administered surveys that are disseminated by: a) mail; b) the researcher or assistant in person; or c) e-mail (Fink, 2006). A self-administered postal survey design was chosen for several reasons: the target population was widely disbursed; the questions were written in a predominantly close-ended style; the questions were amenable to a visual rather than oral approach; and subjects may have required privacy and some time to think about responses. Additionally, the survey could be completed anywhere by the respondent and distributed with a modest budget (Mangione, 1995; Fink, 2006).

A telephone survey was considered as an alternate data collection method but would have posed several logistical challenges. These included managing privacy concerns of the various nursing associations, higher costs, and additional researcher time to conduct the surveys. Electronic mail, an alternative method of survey delivery was also considered. Paper and electronic data collection methods

have been compared in a number of studies (Houghton, Singh & Fraser, 2003; McMahon et al., 2003; Morris, Fenton & Mercer, 2003). Several studies have found lower response rates to e-mail surveys compared to mail surveys (McMahon et al., 2003; Houghton, Singh & Fraser, 2003). Morris and colleagues (2004) conducted an on-line survey of Deans and Directors of various American nursing programs (n = 585) to identify trends in nursing education. The response rate (21%) was less than the authors anticipated. Similarly, an on-line survey of diabetic care practices of members of the American Academy of Nurse Practitioners (n = 1500) also had a 21% response rate (Goolsby, 2007).

Younger age, working in a hospital, having worked fewer years in health care and male gender were found to be the major variables predicting higher response rates to an Internet based survey about asthma diagnosis, symptoms and risk factors by four groups of American health professionals (n = 5,387) (Lusk, Delclos, Burau, Drawhorn, & Aday, 2007). The respondents were offered the opportunity to respond by postal mail or via the Internet. Of the 941 nurses who returned the surveys, only 8.5% chose to respond via the Internet.

In terms of the quality of data obtained using different distribution methods, a comparison was made of the results of surveys distributed by pen and paper or an on-line survey of adolescent health risk behaviors (Wu & Newfield, 2007). While the written survey method resulted in significantly more incomplete results, the computerized surveys resulted in more identical responses. In general the two delivery methods achieved similar rates of surveys without missing data

or identical responses, and they also achieved equivalent scores on the measurement tools.

The author had recently participated in an on-line survey conducted by another PhD nursing student. Despite having completed the survey on-line, she could not send it back to the researcher. In the end, responses were printed and the completed survey was returned by post. This posed significant inconvenience at the time and I was informed that others had the same problem.

This type of challenge is not uncommon as the technology used to deliver the survey may not be compatible with the respondent's technology (Morris, Fenton & Mercer, 2004). In addition, respondents may delete the e-mail without opening it due to fear of a virus or perceived time constraints. Certainly, the possibility exists that NPs may not have access to a computer or have the comfort level and/or skills needed to respond to an e-mail survey. For example, in New Brunswick over one-half of registered nurses have e-mail addresses but fewer access their e-mail daily (Doug Wheeler, Nurses Association of New Brunswick, personal communication, June 20, 2007). For the above reasons, postal delivery method was selected for survey distribution.

### *Dillman's Tailored Design Method*

*Dillman's Tailored Design Method* (Dillman, 2000) was the method used to conduct the survey. This method is based on the behavioral theory of Social Exchange, which is defined as a human action that is motivated by the return expected from others as a result of the action. With respect to completing surveys, one expects to gain a reward for completing a survey as well as pay a cost in order

to obtain the reward. One trusts that in the end the cost will not outweigh the reward. Rewards can be provided in subtle social ways such as showing positive regard and appreciation for completing the questionnaire.

Dillman (2007) reported an average response rate of 74 % if the complete or total method was used and a 71 % response rate if certain components were left out, based on a total of 48 mail surveys listed in earlier editions of his book. However, after more than 20 years of survey design experience, Dillman reports that currently more intensive procedures are required to attain the same response rates. Dillman suggests including financial tokens and five participant contacts, one of which is done using an alternative procedure from the other contacts, such as a telephone, courier or priority mail contact (Dillman, 2007).

In this study, rewards were offered in several ways. For example, a statement was included in the information letter that outlined the participant's contribution to the design of NP education. The use of respectful language as well as attempts to ensure that the questionnaire was easy to read, and not too long helped minimize the social costs to the participant. Trust was promoted through the use of the University of Alberta logo to link the questionnaire with a perceived legitimate authority. Assurances were made that the results would remain confidential. A detailed explanation of the purpose of the study, expectations of the participants and researcher, and follow up contacts were made in order to reinforce the value of the respondents' opinions (See Appendices C, D, E, & F). Direct costs to participants were eliminated by including self addressed and stamped return envelopes.

Each potential participant, excluding those registered through the College of Registered Nurses of Manitoba received 4 different contacts. These methods were used to convey the importance of the survey and anticipated value of the participant's opinions. The fifth, alternative contact suggested by Dillman was not carried out because of cost constraints and the telephone numbers of participants were not consistently made available to the researcher (Dillman, 2000). See Table 1 for contact timing and content.

Table 1

*Contact Timings and Content of Each Contact*

| Contact | Timing | Method | Content |
|---|---|---|---|
| 1 | Start date | Pre-notice letter | Informed participant that the questionnaire would arrive in a few days and his or her participation would be greatly appreciated |
| 2 | 5 days later | Questionnaire | Questionnaire, detailed cover letter and postage paid return envelope |
| 3 | 12 days later | Letter | Thank you for returning the questionnaire and asking those who had not returned it yet to do so |
| 4 | One month later | Replacement questionnaire | Replacement questionnaire, detailed cover letter and postage paid return envelope |

*Survey Instrument*

The *Mental Health Problems Perception Questionnaire [MHPPQ*] (Lauder, Reynolds, Reilly & Angus, 2000) is a 27 item summated rating scale (see Appendix B), revised from the *Alcohol and Alcohol Problems Perception*

*Questionnaire [AAPPQ]*. It was revised by Lauder and colleagues (2000) as a result of psychometric testing and to address the theoretical underpinnings of the mental health model. Permission to use the *MHPPQ* was received from Dr W. Lauder (personal communication, May 25, 2007). The questionnaire consists of 3 subscales. These include the therapeutic commitment, role support and role competency scales. The response options for each item ranges from strongly disagree to strongly agree on a 7-point Likert-like scale. A cumulative score for the questionnaire is provided by summing the scores on individual items, with scores ranging from 14 to 98 for the therapeutic commitment scale, 9 to 63 for the role competency scale and 4 to 28 for the role support scale. Lower scores represent lower levels of therapeutic commitment, role support and role competency. Items 16 to 23 are reverse scored.

In order to use this scale with a nurse practitioner population, the wording in one of the items was changed. In item number 20, the title of *District Nurse* was substituted for the title of *Nurse Practitioner* to more accurately identify the role of NP participants in the current study. It was anticipated that the effect of this change would be minimal.

In addition to the *MHPPQ,* a demographic section was developed to collect data on work and educational experience, both general and specific to mental health. Because very broad questions about assessing and identifying problems that patients are experiencing are asked in the *MHPPQ*, question 9 in the demographic section was developed to allow for a more detailed description of NPs' confidence in managing 8 specific mental health disorders and issues.

These include depression, anxiety, substance dependence, dementia, suicide ideation, schizophrenia and attention deficit hyperactivity disorder. Depression, anxiety, and substance dependence were chosen because of their prevalence in Canada and suicide ideation was chosen because of the lethality of the consequences. Schizophrenia and bipolar disorder were selected because of their severity and complexity and the fact that they occur less frequently, thereby diminishing the opportunity for NPs to develop a sense of competency and increasing the need for adequate role support. Attention deficit hyperactivity disorder and dementia were selected because of their prevalence and the fact that they represent predominantly age specific illnesses. Respondents were asked to identify their feelings of confidence in managing these illnesses on a 7-point Likert-type scale. From a face validity perspective, these are similar to role competency items, however once the data were collected, more detailed analysis of content and construct validity was carried out.

To facilitate further analyses with these items, correlations between the items were tested (see Table 14) and then a summative variable, Confidence to Manage, was created. The use of one variable instead of eight allowed for parsimonious management and analysis of the data. Further analyses were conducted using this composite variable.

Three open ended questions were added to the survey to explore with participants: 1) how their NP education on mental health and illness prepared them to work with this population; 2) what if any changes they thought were

needed to the NP program on these issues; and 3) any other thoughts they had about this component of their work.

*Psychometric properties.* The psychometric properties of the *MHPPQ* were reported in a study of district nurses (n = 82) caring for individuals with mental health problems (Lauder, Reynolds, Reilly & Angus, 2000). Almost 60% of the nurses reported having some mental health education. Using Pearson's correlation coefficients, therapeutic commitment and role support were correlated ($r = 0.27$, $P<0.05$), as were therapeutic commitment and role competency ($r = 0.53$, $P < 0.01$) and role support and role competency ($r = 0.49$, $P < 0.01$). These correlations support the relationship among scales in the therapeutic commitment model, especially the relationships between therapeutic commitment and role competency and role competency and role support. Construct validity was supported using factor analysis. A 3-factor solution explained 53.8% of total variance. Internal consistency was assessed using Cronbach's α coefficient. The results for therapeutic commitment, role support and role competency scales were 0.91, 0.83 and 0.85 respectively, demonstrating acceptable internal consistency for each of these scales.

Similarly, internal consistency and construct validity for the *MHPPQ* were assessed in a mail survey of general registered nurses (n= 152), over 90% of whom had no post graduate mental health specialist experience (Angus, Lauder & Reynolds, 2001). These nurses were working in a general hospital. Internal consistency was measured using Cronbach's α coefficient and construct validity was measured using exploratory factor analysis. Correlation between the scales

was measured using Pearson's *r* coefficient. The Cronbach's α coefficients for therapeutic commitment, role support and role competency scales were 0.84, 0.89 and 0.87 respectively. These results support the internal consistency of each of the subscales. Using confirmatory principal components factor analysis, a 3-factor solution was selected that supported the construct validity of the 3 core concepts. A scree plot was also examined to further support selection of the 3 scales.

Test-retest reliability was evaluated in post-registration nurses (n=36) by administering the questionnaire twice, 4 weeks apart (Angus, Lauder & Reynolds, 2001). Correlation coefficients (Pearson's *r*) for each of the 3 scales comprising the *MHPPQ* were computed. Test-retest correlations for the therapeutic commitment scale were $r = 0.88$ ($P < 0.01$), role competency $r = 0.69$ ($P < 0.01$) and role support $r = 0.70$ ($P < 0.01$). Test-retest reliability coefficients of .70 are considered acceptable for newly developed psychosocial instruments (Burns & Grove, 2005).

Construct validity was further assessed by computing correlations between the 3 scales of the *MHPPQ* (Angus, Lauder & Reynolds, 2001). Therapeutic commitment and role support ($r = 0.27$, $P < 0.001$), therapeutic commitment and role competency ($r = 0.61$, $P < 0.001$) and role support and role competency ($r = 0.30$, $P < 0.001$) were correlated. The correlation between therapeutic commitment and role competency was stronger than other correlations. The data from the current study will contribute to evaluating the psychometric properties of the *MHPPQ*.

Of note, the final item in the instrument is, “When working with patients with mental health problems I receive adequate ongoing support from colleagues.” The authors of the original work scored this item under the therapeutic commitment scale. However, at face value it would appear to fit into the role support scale. The internal consistency of the *MMHPQ* was calculated to ascertain the most accurate placement of item 27.

*Instrument review with NP students*. Seven NP students were accessed through the Faculty of Nursing at the University of New Brunswick in Fredericton for the purpose of reviewing the survey prior to its distribution. The objective of the review was to determine the length of time needed to complete the questionnaire and identify any ambiguities in the questionnaire. Data that was provided was retained for analysis.

In terms of time required to complete the survey, two students completed it in 8 minutes and the rest completed it between 8 and 14 minutes. In the cover letters it was suggested that the survey might take about 15 minutes to complete. Some minor changes were suggested by the students. These included allowing more space for writing in responses to the open-ended questions. It was suggested that a demographic question be added to ask about additional secondary education other than nursing. The purpose of this question was to capture additional learning and experience that might affect the respondent’s interaction with persons with mental illness.

*Instrument revisions.* The students raised concerns about the wording and syntax of two of the questions on the *MHPPQ.* At least 2 of the students found

Questions 8 and 9 too wordy and suggested that the wording be changed or a comma inserted to promote understanding. To enhance readability without altering the meaning of the questions, a comma was added to each of the sentences (see table 2).

Table 2

*Changes Made to the MHPPQ*

| MHPPQ question | Before the comma was added | After the comma was added |
|---|---|---|
| Question 8 | If I felt the need when working with patients with mental health problems I could easily find someone with whom I could discuss any personal difficulties I might encounter. | If I felt the need when working with patients with mental health problems, I could easily find someone with whom I could discuss any personal difficulties I might encounter. |
| Question 9 | If I felt the need when working with someone with mental health problems I could easily find somebody who would help me clarify my professional difficulties. | If I felt the need when working with someone with mental health problems, I could easily find someone who would help me clarify my professional difficulties. |

Additionally, footnotes were added to two other questions on the *MHPPQ*. Question 15 initially read, “I feel I can assess and identify nursing problems of patients with mental health problems.” A footnote was added to explain the phrase “nursing problems” because the NP role is broader, in that NPs diagnose and prescribe treatment, including medications. Question 26 states, “When working with patients with mental health problems I receive adequate supervision from a more experienced person.” In many situations the term ‘supervision’

suggests a hierarchical relationship. NPs have been educated to practice in a collaborative manner which is not hierarchal. However, in mental health settings, the term "supervision" is used to describe access to support and education from an experienced colleague. This suggests a relationship that is less hierarchal and more collaborative. A footnote was added, indicating the latter definition was the intended meaning. Indeed, more than one of the respondents made indignant notes on the returned surveys about the quality of relationship that NPs have with their "collaborating" and not "supervising" physicians.

As mentioned before, question 20 initially stated "Caring for people with mental health problems is an important part of a DNs' role." The abbreviation "DN" is used for District Nurses in Great Britain, the population for which the tool was developed. The term "nurse practitioner's" was substituted for "DNs." The above changes were made to the questionnaire and it was believed that these changes would not change the meaning of the relevant questions.

*Statistical Power*

Houser (2008) identified several strategies to create sufficient power to find true relationships if they exist. These include setting a reasonable significance level, minimizing extraneous variables, accessing an adequate sample size to represent the population's diversity, and matching effect size to sample size. Other strategies include conducting a one-tailed test when there is theoretical justification (Hazard Munro, 2005), basing the research on theoretical or conceptual framework and selecting instruments where validity and reliability are supported (Beck, 1994). These strategies will be addressed in this study, except

the effect size which is not clear. Most nursing studies have small effect sizes (Polit & Beck, 2004).

Depending on the statistical test, several methods exist to estimate sample size needed to achieve adequate statistical power, (Polit & Tatano-Beck, 2004). One rule-of-thumb is to use 15 participants for every variable that will be studied (Houser, 2008). It is rarely necessary to include more than 200 participants. Three variables were evaluated in this study, thus requiring 45 respondents. By including all NPs across Canada who met the inclusion criteria, a 4% response rate was required in order to achieve adequate power. Additionally, health policy, NP education, work settings and conditions vary across the country. For that reason, a decision was made to include the available population rather than recruit a sample.

*Plan to Manage Missing Data in the MHPPQ*

Surveys were returned with missing data. This may have been because of not completing a whole page (i.e. the participant skipped one of the pages), or the participant may have missed one or more separate items or circled more than one possible response. In cases where two adjacent responses were circled, a half answer was given. For example, if the participant circled both a 5 and a 6 for item number 20, a 5.5 was scored. If the circled numbers were far apart (i.e. both a 2 and a 6 circled), the response was scored as missing. All useable data were analyzed. When at least 80% of the responses were present for a given subscale in a particular survey, the mean of the averages on the relevant subscale was used for the missing items for that individual survey.

## Sample

### *Inclusion Criteria*

The target population was all NPs living in Canada who were licensed to practice in Canadian provinces and territories, with the exception of Quebec, Saskatchewan and the Yukon. NPs in Quebec were not included in the current study because the funds were not available for translation costs. Yukon Territory NPs were not included because at the time of the study the territory did not have a legislated NP or equivalent role. The author was unable to distribute the surveys to Saskatchewan NPs despite several attempts to access this population through the Saskatchewan Registered Nurses Association. The inclusion criteria included: fluent in English or self- identified English as their language of contact; practiced as a NP for the previous 6 months; and were willing to participate in research.

### *Sampling Technique*

Nursing Associations in Canadian jurisdictions were contacted to ascertain the number of nurses working in a licensed nurse practitioner or equivalent role in their jurisdiction who were willing to receive contact from outside sources for the purpose of research. All addresses for the potential participants were accessed through provincial nursing association representatives.

Each province or territory had its own process and policies for permitting non-association research to be conducted with its members. For example, in Prince Edward Island (PEI) there are 3 registered NPs and present policy does not allow for their names to be shared by the Association for research purposes. The Association representative indicated she would speak to the NPs personally to see

if they were interested in participating (Becky Gosbee, May 16, 2007, personal communication). If they were interested in participating, the author's contact information was provided to the participant.

Some provincial nursing associations permitted the researcher to have access to the participants' identifying information whereas other nursing associations did not (see Table 3). Many associations cited privacy reasons for not releasing the names and addresses of members. However, once a written application was made to Nova Scotia (NS), Ontario (ON) and Newfoundland & Labrador (NL-L) associations, the names of potential participants and their addresses were released to the researcher with the understanding that the names and contacts would remain confidential. A variety of processes existed in order to gain approval to conduct research through the nurses associations (See Table 3). For example, the College of Nurses of Ontario and College of Registered Nurses of British Columbia required that a specific form be completed. The Northwest Territories' (NWT) Aurora Research Institute required that a license to conduct research be obtained before approaching that territory's nurses association (See Appendix G). Obtaining the license required a separate on-line application, ethical review and letters to each of the CEOs of the health districts in the NWT describing the proposed research (See sample of request letter sent to nurses associations and CEOs of NWT health districts, Appendix H). Once approval was granted, the letter of application was then sent to the Registered Nurses Association of Northwest Territories and Nunavut. In contrast, the Nunavut Research Institute only required a written description of the proposed study.

Table 3

*Administrative Processes Required to Access NP Contacts*

| Province/territory | Distribution process | Process to access contact information |
|---|---|---|
| New Brunswick (NB) | 1* | Request letter to provincial nurses associations |
| Nova Scotia (NS) | 2* | |
| Prince Edward Island (PEI) | 3* | |
| Newfoundland-Labrador (NF-L) | 2* | |
| Saskatchewan (SK) | - | |
| Alberta (AB) | 1* | |
| Manitoba (MN) | 4* | |
| British Columbia (BC) | 1* | Complete specific forms for nurses association |
| Ontario (ON) | 2* | |
| Northwest Territories (NWT) | 1* | Complete Aurora Research Institute License Application |
| | | Send letter to CEOs Health Districts |
| | | Complete Stanton Territorial Health Authority Ethical Review |
| | | Request Letter to Territorial Nurses Association |
| Nunavut (NU) | 1* | Send explanation letter to Nunavut Research Institute |
| | | Request letter to Territorial Nurses Association |

1* Prepackaged mail outs sent to nurses associations
2* Mail contacts mailed by researcher
3* Nurses association representative spoke to recruited participants
4* Electronic version sent to nurses association who printed and mailed out mail contacts

Despite the different administrative approaches in the two territories, the

Registered Nurses Association of the Northwest Territories and Nunavut

represents NPs in both territories and a contract agreement was signed with that organization. The other provincial associations were sent a written description of the proposed research. The letters sent to the representative nursing associations were essentially identical except for relevant name changes.

A complete set of each of the 4 mails outs were sent by overland transport to the nursing associations of BC, AB, NU, NWT, and NB in order to minimize transportation costs. One NP from PEI e-mailed the author to say that she was interested in participating and the survey was sent to her. The contacts were sent to individual NPs from NF-L, ON, and NS from the lists obtained from the respective nurses associations according to the aforementioned protocol.

Given the diverse distribution plans, the distribution dates were not rigidly synchronized. There were at least two reasons for this, including overland transportation times to reach the different nurses associations across the country and differences in time processing the contact letters through nurses associations. All contacts were distributed in June and early July 2009 except in NWT and NU where the distribution process began in August 2009 because of administrative delays in gaining approval to conduct the study. To allow for adequate response time, completed surveys that were received up to December 31, 2009 were included in the study. The decision to allow a response time of 3 months after the surveys were sent to northern Canada was made because most returned surveys from the first set of mail outs in June were received within a 3 month period.

The distribution process of the surveys in Manitoba was very different from the other provinces and territories. An electronic version of the contact

letters and surveys was sent to the nurses association in Manitoba and the documents were printed off there and mailed along with a letter from the Manitoba nurses association explaining that the association was protecting the privacy of the NP. The NPs received contacts with the return address of the Manitoba nurses association on the envelope and a participant number on the envelope. I sent a list of the numbers on the outside envelopes of the completed surveys to the nurses association and no further contact documents were sent to those participants.

The questionnaires sent to Manitoba NPs through their college received the survey copied on double-sided pages, contrary to Dillman's recommended method. This was different from those sent to NPs in other jurisdictions who received the survey on single-sided paper. Additionally, the letter included by the College of Registered Nurses of Manitoba introduced the study as being approved by the College. I did not see the introduction letter from the College. This did not appear to have a significant positive effect on the response rate from Manitoba as it was lower than those of most other jurisdictions, although other unknown factors may also be affecting the response rate.

Several respondents indicated that they lived in one province, but it was clear they had received the survey from a nurses association other than where they were living. For example, despite no surveys being sent to the Saskatchewan Registered Nurses Association, three completed surveys were received from NPs who indicated that they resided in that province.

Minor individual issues occurred: in one case I received an e-mail from an NP who wanted to know how I had received her name and she requested that I not send her any more contacts. I replied by e-mail to explain how I had accessed her name and if she did not wish to receive contacts, she should contact her nurses association. Another NP wrote to clarify inclusion criteria. Specifically, she explained her work situation and questioned her status involving actually "working in the role." She suggested that if I still wanted her to participate, I could resend her the survey. I returned the survey with a note reviewing the criteria, and asked her to complete it if she felt she met them.

Errors were made during the distribution process through the various associations. Several unaddressed letters were returned to me and the postmark identified that they had been sent through Alberta's association. This error was rectified as soon as it was discovered. One NP from one of the territories contacted me by e-mail to say she had received the first contact letter alerting her to the forthcoming survey but she did not receive it. Her e-mail came late in the distribution process and I did not receive a completed survey after I sent her a copy of the questionnaire.

The list of total potential participants by province is found in Table 4. It was unclear how many NPs were registered in more than one province because most provinces and territories did not release their names; as a result this total number may be inaccurate. Additionally, it was not clear from which time frame each provincial association drew up the target population list. For example,

Table 4

*Number of NPs per Jurisdiction Who Met Inclusion Criteria, Responded and Response Rate*

| Province/territory | Potential number of participants | Returned surveys | Response rate (%) |
|---|---|---|---|
| New Brunswick | 46 | 36 | 78 |
| Nova Scotia | 62 | 39 | 63 |
| Prince Edward Island | 1 | 1 | 100 |
| Newfoundland & Labrador | 44 | 23 | 52 |
| Ontario | 693 | 353 | 51 |
| Manitoba | 68 | 33 | 49 |
| Alberta | 222 | 121 | 54 |
| British Columbia | 71 | 47 | 66 |
| Saskatchewan | unknown | 3 | - |
| Northwest Territories & Nunavut | 58* | 17*** | 29 |
| Other** | 7 | 7 | |
| Total | 1272 | 680 | |

* Several of those returned with 'unknown address or moved' marked on the envelope were addressed to NPs in the northern territories.

** Responses from outside Canada, not identified or question about province/territory of residence was marked with more than one response

*** 21 completed surveys had a sticker asking not to answer q12 as per Stanton Territorial Health Authority request. Therefore 4 did not report living in the NWT-NU but received a survey from that Association.

Ontario's list was drawn from NPs who were registered in 2008 while Alberta's list was updated the day the contact letters were first distributed. It is difficult to say the impact of this on the potential responses; the Alberta's numbers increased by 7 after rechecking the number. This may have impacted the total number of

potential participants as those more recently registered in those provinces with older lists may not have been included in the study.

The initial plan was to analyze the results in aggregate because of privacy concerns, especially in provinces where there were very small numbers of NPs. Therefore, all NPs who were eligible were sent the surveys. Ontario and Alberta have a large number of NPs, but response rates from health professionals can sometimes be as low as 20%-40% (Badger & Werrett, 2005). For that reason it was decided to send surveys to all eligible NPs in the two larger provinces. At the time that the surveys were distributed, there were 1272 NPs who appeared to meet inclusion criteria.

## Ethical Considerations

Prior to commencing data collection, ethical approval was obtained from the *Health Research Ethics Board (HREB)* Panel B at the *University of Alberta* (See Appendix I). Depending on the policies of the different provincial and territorial nurses associations, the study was reviewed again by identified association staff members prior to granting ethical approval at an association level. In the Northwest Territories a government license to conduct research was acquired; this included a process for ethical approval. A representative from the *Nunavut Research Institute* informed the author that a license to conduct research in Nunavut was not required (C. Spavor, personal communication, March 07, 2008).

The Stanton Territorial Health Authority in the NWT stipulated upon granting ethical approval that question 12 in the demographic section not be asked

(See Appendix J). This question was about where the NP was primarily working; it was felt that confidentiality could not be protected if that question was answered. Consequently, a sticker stating this fact was placed over the body of this question on the surveys that went to the NWT and NU. The sticker was added to both NU and NWT surveys at the recommendation of the nursing association president as it was suggested that NPs registered with that association might work in both territories (personal communication Steven Leck, 2009).

The survey data was analyzed in aggregate in order to ensure a large sample size and to protect the anonymity of study participants. All participants were informed in a detailed information letter (see Appendix D) that they were free to choose to return the survey and that by returning the survey they were consenting to participate. The reading level of the introduction letter was grade 8 as calculated by Microsoft Word. The completed surveys will be stored in a locked cabinet in the author's office at Saint Joseph's Community Health Centre in Saint John, NB for five years. Only aggregated data will be communicated in any presentation or manuscript. All participants were advised that if the data are to be used in any future research studies, approval from an appropriate ethics committee would be obtained. In addition, participants were informed about the risks and benefits of participating, that participation was voluntary, and that there would not be any reimbursement for participating. The risks of participating were minimal as confidentiality was maintained and the participants had no financial costs associated with completing the surveys.

## Summary

In order to understand how NPs see their role when caring for persons with mental illness, a postal survey of all NPs in Canadian jurisdictions except Quebec, Saskatchewan, and the Yukon was conducted. The survey was comprised of 3 sections: 1) demographics; 2) open answer questions; and 3) the *MHPPQ*. The *MHPPQ is* a measurement tool that has been used in a nursing population and has been demonstrated to have adequate reliability and validity when administered to a nursing population.

The survey was first tested with a group of NP students to assess clarity and time required to complete. The participants were accessed through their nursing associations because NPs are required to be licensed in their respective provinces and territories in order to practice as a NP. Dillman's Tailored Design Method for survey methodology was adapted and four postal contacts were sent to the potential participants, except in Manitoba where an alternative distribution method was used. A variety of administrative and review processes were in place in the nurses associations, necessitating several different approaches to recruitment.

# CHAPTER 4

# RESULTS

Analyses of the data were conducted in a systematic manner; first quantitative findings will be reported followed by the qualitative findings. For the quantitative analyses, the quantitative data were analyzed using SPSS 17 statistical program. The sample is described, and depending on the level of measurement, frequencies or measures of central tendencies and variability are reported. Correlations among the 3 subscales of the *MHPPQ* and a composite variable, 'Confidence to Manage' as well as important demographic variables are presented. One -way Analysis of Variance was used to assess the influence of descriptive variables on the 3 *MHPPQ* subscales and the "Confidence to Manage" scale. Post hoc analyses were conducted when significant F scores were observed. Content analysis was used to gain insights from responses to the open-ended questions.

## Response Rate

From the 1272 surveys that were mailed to NPs across Canada, a total of 765 surveys were returned, resulting in a response rate of 60.1%. On scrutiny of the returned surveys, 85 did not meet inclusion criteria or were not interested in participating; thus a total of 680 useable responses were returned. The useable response rate for returned surveys from the adjusted eligible population was 57.2% (Figure 2).

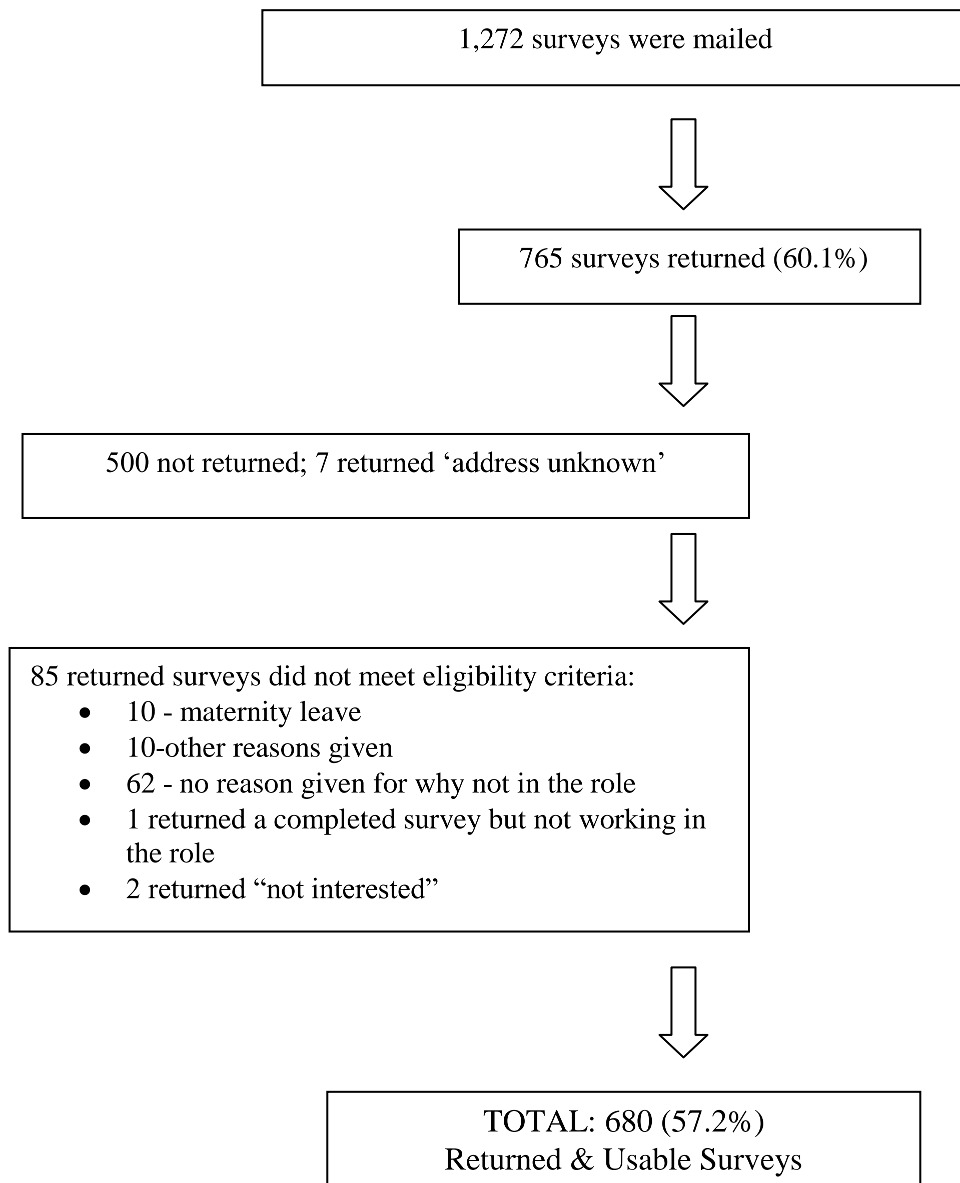


*Figure 2*. Returned surveys and calculated response rate.

## Description of Sample

Of 680 respondents, 665 reported their age (X = 45.8 years SD 8.2 years). The range was 26 to 70 years. The majority were women (n = 634) and worked full time (n = 551, 80.9%). Participants had a mean of 15.8 years of experience (SD

8.2) as a RN prior to becoming a NP and 6.1 yrs (SD 4.6) of experience as a NP (n = 657). The highest level of nursing education achieved and community size where NPs were working is presented in Table 5. Percentages are based on the actual number of respondents for each variable. All provinces and territories were represented, except for Quebec and the Yukon. See Table 4 for breakdown of respondents by province/territory. The majority (n = 400, 58.7%) identified primary care as their primary work setting. Many NPs identified more than one primary work setting (see Table 6).

Table 5

*Demographic Description of Sample (N = 680)*

| Variable | n (%) | % |
|---|---|---|
| Gender | 676 | |
| Female | 634 | 93.8 |
| Male | 42 | 6.2 |
| Employment | 673 | |
| Full time | 551 | 81.9 |
| Part time | 108 | 16.0 |
| Casual | 12 | 1.8 |
| Other | 2 | 0.3 |
| Highest nursing education | 676 | |
| Diploma | 31 | 4.6 |
| Baccalaureate | 273 | 40.4 |
| Masters | 364 | 53.8 |
| Doctorate | 8 | 1.2 |
| Community Size | 662 | |
| Less than 999 | 31 | 4.7 |
| 1,000 - 4,999 | 74 | 11.2 |
| 5,000 - 9,999 | 51 | 7.7 |
| 10,000 - 29,999 | 85 | 12.8 |
| 30,000 - 99,999 | 94 | 14.2 |
| 100,000 - 499,999 | 138 | 20.8 |
| 500,000 and over | 189 | 28.5 |

Table 6

*Primary Work Settings (N=680)*

| Work setting | Number | Percentage (%) | Work setting | Number | Percentage (%) |
|---|---|---|---|---|---|
| Primary Care | 400 | 59 | Critical/Intensive Care | 14 | 2.1 |
| Maternal Newborn | 14 | 2.1 | Oncology | 12 | 1.8 |
| Mental health Psychiatry | 13 | 1.9 | Tele-practice | 1 | .1 |
| Pediatrics | 19 | 2.8 | Emergency | 30 | 4.4 |
| Ambulatory Care | 28 | 4.1 | Dialysis/Nephrology | 8 | 1.2 |
| Geriatrics | 52 | 7.6 | Administrative Nursing Service | 2 | .3 |
| Rehabilitative Care | 5 | .7 | Education- student programs | 26 | 3.8 |
| Chemical Dependency | 4 | .6 | Education- patient programs | 1 | .1 |
| Community Health | 54 | 7.9 | Nursing Research | 2 | .3 |
| Medical Surgical | 42 | 6.2 | Other* | 66 | 9.7 |
| Several Clinical/ Float | 2 | .3 | Missing | 24 | 3.5 |
| Occupational Health | 2 | .3 | | | |

*Identified other specific areas

*Past and Present Mental Health Setting Work Experience*

Seventy-eight percent (n= 520) had no experience working in a mental health setting as an RN and 80.7 percent (n=527) had no experience as a NP. Other reported experience in the mental health setting as both an RN and NP is presented in Table 7.

Table 7

*Past Employment Experience in a Mental Health Setting as an RN and NP*

| | No experience (%) | Less than 2 years (%) | 2 or more yrs, less than 5 yrs (%) | 5 or more yrs, less than 10 yrs (%) | 10 or more yrs (%) |
|---|---|---|---|---|---|
| RN (n=665) | 520 (78.2%) | 63 (9.5%) | 28 (4.2%) | 28 (4.2%) | 26 (3.9%) |
| NP (n=653) | 527 (80.7%) | 50 (7.7%) | 39 (6.0%) | 22 (3.4%) | 15 (2.3%) |

No other mental health experience was reported by 503 (76.2%) of the NPs (n= 660) while 157 (23.8%) reported that they did have other work experience in mental health. Of the 157 who reported having other psychiatric/ mental health work experience, 145 provided details about this experience; many had more than one type of work experience. Five NPs did not report that they had previous MH experience as a Registered Nurse or NP in the previous question but did identify in this question that they had worked in one of the roles: two specifically mentioned they had worked as a psychiatric nurse or registered psychiatric RN.

Eighty-three NPs reported various clinical settings where they had cared for persons with mental illness, including prisons, inner city street settings, in-patient and clinic settings, military units and emergency rooms. Another 14 reported clinical work in outpost, northern Canadian and First Nation settings. Teaching psychiatry/mental health theory and/or clinical practice in universities, nursing schools, and community colleges was reported by 25 respondents and a further 26 reported counseling in various settings. Seven described working in a mental health setting but not as a RN or NP; these included volunteering at a shelter or working with persons with mental illness or mental health problems prior to entering nursing. Four worked in consultant or advanced practice roles, such as a Clinical Nurse Specialist or being on a provincial advisory committee. Further, two reported having a family member who had a mental illness. Other respondents wrote on the surveys at different points about having family members with mental illness.

### *Education*

When asked about how long it had been since participating in a mental health/ psychiatric education session, the majority (65.4%) reported it had been within the past year (Table 8). On scales ranging from 1 to 5, the mean rating for how the theoretical MH education prepared the NPs (n = 678) to work with individuals with mental health issues was 2.6 (SD .95) with median being 3. The mean rating for how the clinical education prepared the NPs (n = 674) to work with persons with mental health issues was 2.6 (SD .95) while the median was 2.8.

Table 8

*Length of Time Since Participation in Mental Health Education (n=674)*

| Length of time | n (%) |
|---|---|
| Past 6 months | 344 (51.0%) |
| 7 months to 1 year | 97 (14.4%) |
| More than 1 yr, less than 3 yrs | 129 (19.1%) |
| 3 or more yrs | 72 (10.7%) |
| Never | 32 (4.7%) |

*Knowledge About Local Community Mental Health Services*

NPs were asked about their knowledge of services offered by public community mental health and other community agencies, such as private counselors, education groups and support groups. The mean rating of participants' (n = 678) knowledge of services offered by the local public community mental health agencies was 3.4 (range 1-5) while the mean rating of knowledge of other community mental health services, such as private counselors and agencies (n = 678) was 3.2.

*Work Involving Persons with Mental Illness and Mental Health Problems*

More than 1/3 of the NPs spend more than 25 percent of their work time working with persons and or families of persons with mental illness (Table 9). The majority (61.8%, n = 387) of participants reported accessing consultation and or collaboration for psychiatric issues one or more times a month (see Table 10). Twenty-one NPs reported not having access to psychiatric consultation or collaboration and 28 reported that psychiatric consultation was available but not necessary.

Table 9

*Percentage of Time Spent Working with Persons with Mental Illness or their Families (n=675)*

| Percentage of time spent working | n (%) |
|---|---|
| 0%-10% | 215 (31.8%) |
| 11%-25% | 226 (33.5 %) |
| 26% -49% | 141 (20.9%) |
| 50%-75% | 51 (7.6%) |
| More than 75% | 42 (6.2%) |

Table 10

*Frequency Accessing Consultation or Collaboration (n = 626)*

| Frequency of consultation or collaboration | n (%) |
|---|---|
| Once a month or more | 387 (61.8%) |
| Once every 2 to 3 months | 134 (21.4%) |
| Once every 4 to 6 months | 65 (10.4%) |
| Once every 7 to 12 months | 40 (6.4%) |

Similarly, the majority (82.3%, n = 553) reported occasionally feeling ill-equipped to provide care for someone with a mental health problem, with 17.7% (n = 119) reporting that they did not experience this feeling. Of those who occasionally feel ill-equipped, almost one-third reported experiencing this feeling once a month or more. See Table 11 for further descriptions. Of the 9 respondents who reported feeling ill-equipped in the category “other,” a variety of responses were written in, from “almost daily” to “varies according to the problem,” to “rare—every 2 years or so.”

Table 11

*Frequency of Feeling Ill- Equipped (n = 529)*

| Frequency of feeling ill-equipped | n (%) |
|---|---|
| Once a month or more | 173 (32.7 %) |
| Once every 2 to 3 months | 172 (32.5 %) |
| Once every 4 to 6 months | 114 (21.6 %) |
| Once every 7 to 12 months | 61 (11.5 %) |
| Other | 9 (1.7 %) |

### *Correlations Among Continuous Variables, Education, Experience, and Knowledge*

Theoretical and clinical educational preparation were correlated (r = *.58; p< .001)* as were knowledge of local public and other community mental health services *(r =.69; p<.001).* Correlations among continuous variables, such as education, knowledge and work experience are presented in Table 12.

### Confidence to Manage Specific Mental Health Disorders and Problems

NPs rated their confidence in therapeutically managing 7 disorders and suicide ideation. The mean rating NPs gave their confidence in managing depression and anxiety was 4.92 and 4.75 respectively. On average, NPs were ‘neither insecure nor confident’ in their ratings of how they managed suicide ideation, dementia and substance dependence. Confidence ratings for the management of bipolar disorder, schizophrenia and ADHD were lower, with the mean ratings between insecure and neither insecure nor confident. Findings are presented in Table 13.

Table 12

*Pearson Correlations Summary Table, Knowledge and Work Experience (n = 640-678)*

| | Feel ill-equipped | Knowledge public MH services | Knowledge other MH services | Theoretical prep | Clinical prep | Other MH experience | Years experience NP |
|---|---|---|---|---|---|---|---|
| Feeling ill-equipped | 1 | .22*** | .19*** | .19*** | .20*** | .19** | .07 |
| Knowledge public MH services | | 1 | .69*** | .34*** | .33*** | .11** | .09* |
| Knowledge other MH services | | | 1 | .38*** | .34** | .10* | .06 |
| Theoretical preparation | | | | 1 | .58*** | .22*** | .17*** |
| Clinical educational preparation | | | | | 1 | .17*** | .10* |
| Other psychiatric/ MH work experience | | | | | | 1 | .11** |
| Yrs experience NP | | | | | | | 1 |

* $p < 0.05$; ** $p < 0.01$; *** $p < .001$

Table 13

*Mean Ratings of Confidence to Manage MH Issues, Range 1-7*

| Mental health issue | Mean rating of confidence | Standard deviation |
|---|---|---|
| Depression* | 4.92 | 1.11 |
| Anxiety* | 4.75 | 1.11 |
| Suicide ideation* | 4.20 | 1.57 |
| Dementia* | 4.20 | 1.57 |
| Substance dependence* | 4.00 | 1.45 |
| Bipolar disorder* | 3.40 | 1.46 |
| AHDH* | 3.28 | 1.35 |
| Schizophrenia* | 3.00 | 1.46 |

*n = 670-675

The relationships among the 7 disorders and suicide ideation were evaluated and a new summative variable called 'Confidence to Manage' was created. Cronbach's alpha was .89 for the 8 items. Confidence to Manage was correlated with both theoretical ($r = .50; p < .001$) and clinical educational preparation ($r = .46; p < .001$). Mental health disorders and suicide ideation were correlated (see Table 14).

Therapeutic Commitment, Role Support, and Role Competency

*Reliability of the MHPPQ*

Item 27 of the *MHPPQ* is, "When working with patients with mental health problems I receive adequate ongoing support from colleagues." Lauder and colleagues (2000) placed this item into the therapeutic commitment subscale. At face value, it appears to be a question about role support. Cronbach's alpha was

Table 14

*Pearson Correlations Summary Table, Mental Disorders and Suicide Ideation (n= 666- 675)*

| | Depression | Anxiety | ADHD | Schizophrenia | Substance abuse | Bipolar disorder | Suicide ideation | Dementia |
|---|---|---|---|---|---|---|---|---|
| Depression | 1 | .84** | .38** | .52** | .52** | .59** | .63** | .47** |
| Anxiety | | 1 | .39** | .53** | .52** | .58** | .57** | .44** |
| ADHD | | | 1 | .49** | .47** | .50** | .43** | .25** |
| Schizophrenia | | | | 1 | .59** | .76** | .57** | .42** |
| Substance abuse | | | | | 1 | .61** | .63** | .31** |
| Bipolar disorder | | | | | | 1 | .62** | .42** |
| Suicide ideation | | | | | | | 1 | .34** |
| Dementia | | | | | | | | 1 |

** $p < .001$

calculated for both therapeutic commitment and role support scales while including and then excluding item 27. The Cronbach's alpha for the Therapeutic Commitment subscale with and without item 27 were 0.914 and 0.921 respectively. Conversely, the Cronbach's alpha for the Role Support subscale with and without item 27 were 0.924 and 0.909 respectively. Since the Cronbach's alphas were comparable, item 27 was placed in the Role Support subscale. The Cronbach's alpha for the Role Competency subscale was 0.900.

*Therapeutic Commitment, Role Support, and Role Competency Scores*

The mean of the relevant subscale was inputted where possible when data was missing. Each of the items of the 3 subscales was totaled and the means are

reported. The mean rating of therapeutic commitment was 5.05 (SD 0.83). When translated to total score for this subscale by multiplying the mean rating by number of items in the subscale, the mean score was 65.7 with possible range of 13 to 91.

The mean score for the role competency subscale was 5.02 (SD 0.88), and similarly, when translated to the total score, the mean total score was 45.2. The potential range for this subscale could be 9 to 63. The mean score for the role support subscale was 4.86 (SD 1.27). Again, translated to the total score, this is 24.3 and a possible range for this score is 5 to 35. Higher scores represent higher levels of therapeutic commitment, role support and role competency. Thus the scores reported in this study are approximately two-thirds of the possible score in each subscale.

*Correlations Between Subscales of the MHPPQ*

Correlations between subscales of the *MHPPQ* were calculated using a Pearson's $r$ to test the following hypotheses:

1. Using the *MHPPQ*, self ratings by Nurse Practitioners of role support and therapeutic commitment *were* positively correlated. The correlation between therapeutic commitment and role support was $r = .357$, $p < .001$. The hypothesis was supported.
2. Using the *MHPPQ*, self ratings by Nurse Practitioners of therapeutic commitment and role competency *were* positively correlated. The correlation between therapeutic commitment and role competency was $r = .754$, $p < .001$. The hypothesis was supported.

3. Using the *MHPPQ*, self ratings by Nurse Practitioners of role support and role competency *were* positively correlated. The correlation between role support and role competency was r = .418, p < .001. The hypothesis was supported.

Confidence to Manage MH Disorders

Items from the confidence to manage 7 specific mental disorders and suicide ideation scale were correlated individually and in total with the 3 *MHPPQ* subscales (i.e. role competency, role support and therapeutic commitment). Correlations between Confidence to Manage and role competency ($r$ = .68, p < .001), therapeutic commitment ($r$ = .59; $p$ < .001) and role support (r = .30, p < .001) were revealed (see Table 15).

Table 15

*Correlations Between Confidence to Manage and MHPPQ Subscales*

| | Therapeutic commitment | Role competency | Role support |
|---|---|---|---|
| Depression* | .561$^{\S}$ | .668$^{\S}$ | .270$^{\S}$ |
| Anxiety* | .548$^{\S}$ | .647$^{\S}$ | .270$^{\S}$ |
| AHDH* | .333$^{\S}$ | .380$^{\S}$ | .195$^{\S}$ |
| Schizophrenia* | .478$^{\S}$ | .514$^{\S}$ | .223$^{\S}$ |
| Substance dependence* | .421$^{\S}$ | .478$^{\S}$ | .222$^{\S}$ |
| Bipolar disorder* | .512$^{\S}$ | .570$^{\S}$ | .232$^{\S}$ |
| Suicide ideation* | .462$^{\S}$ | .568$^{\S}$ | .259$^{\S}$ |
| Dementia* | .289$^{\S}$ | .316$^{\S}$ | .178$^{\S}$ |
| Total confidence to manage | .588$^{\S}$ | .675$^{\S}$ | .300$^{\S}$ |

*n = 664-673; $^{\S}$ = p < .001

*Correlation of MHPPQ Subscales and Other Variables*

Role Competency and Confidence to Manage were correlated with knowledge of local public MH services, theoretical and clinical education preparation (Table 16). Knowledge of other community MH services was correlated with Confidence to Manage. Experience, education and knowledge of MH services were significantly correlated with Therapeutic Commitment, Role Support and Confidence to Manage.

Table 16

*Correlations Between Knowledge and Experience Variables for MHPPQ Subscales and Confidence to Manage, Using Pearson's r (n=649-667)*

| Variable | Therapeutic commitment | Role competency | Role support | Confidence to manage |
|---|---|---|---|---|
| Feeling ill-equipped | -.26** | -.28** | -.24** | -.36** |
| Knowledge of local public MH services | .37** | .44** | .18** | .47** |
| Knowledge of other community MH services | .32** | .37** | .17** | .47** |
| Theoretical educational preparation | .33** | .41** | .14** | .50** |
| Clinical educational preparation | .34** | .42** | .17** | .46** |
| Years experience as NP | .18** | .18** | .09* | .19** |
| Other psychiatric/MH work experience | .28** | .24** | .07 | .29** |

*p < .05; ** *p* < 0.001 level

The 3 subscales of the *MHPPQ* and Confidence to Manage were found to be correlated with years experience as a NP; correlations were not found between the *MHPPQ* subscales and Confidence to Manage and years experience as a Registered Nurse. Male Gender was correlated with Confidence to Manage ($r < .09$; $p < .05$) but not with the 3 subscales. Age correlated with mean therapeutic commitment ($r = .11$; $p < .01$), role competency ($r = .09$; $p < .05$) and Confidence to Manage ($r = .13$; $p = .001$) scores but not with role support ($r = -.01$; $p = .82$).

*Comparison of Categorical Variables by Mean Scores for MHPPQ Subscales and Confidence to Manage*

*Plan of analysis.* One-way analysis of variance (*ANOVA)* was conducted to examine differences in categories of demographic variables and the means on the 3 subscales on the *MHPPQ* and Confidence to Manage variable. This analysis will be reported as follows

1. A table will be presented with the means and standard deviation of each category with respect to each of the outcomes (therapeutic commitment, role competency and role support and Confidence to Manage)
2. The ANOVA for each of the above outcomes will be presented along with degrees of freedom (*df*) and *p* values.
3. When a significant F-value is revealed, post hoc comparisons based on Bonferroni split between different categories of the demographic variable will be presented.

## Percentage of Time Spent Working with Persons with Mental Illness and/or Their Families

Each of the subscales of the *MHPPQ* and the composite variable, Confidence to Manage were entered into separate ANOVA as the dependent variable. Few participants reported spending 50 to 75% (n = 51) and more than 75% (n = 42) of their time working with individuals with mental illness (including mental health problems) and/or their families. To allow for a stronger analysis, those 2 categories were combined. Each analysis will be discussed individually (Table 17).

### *Therapeutic Commitment*

Results of a one-way ANOVA indicate that mean scores of therapeutic commitment differ by percentage of time spent working with MH patients and or their families ($F [3, 667] = 52.74$; $p < .001$). Post hoc comparisons between different time categories indicated several differences among the time categories. Therapeutic commitment mean scores of NPs who spent 0%-10% were lower than all those who spent more time working with this population (*p< .001)*. The mean therapeutic commitment scores of NPs who spent 50% or more of their time working with this population were higher than all those who spent less time. No other difference was found between the other categories.

### *Role Competency*

Results of a one-way ANOVA reveal a difference in mean scores of role competency by percentage of time spent working with MH patients and or their families ($F [3, 671] = 38.08$, $p < .001$). Post hoc comparisons found that lower role competency

Table 17

*Mean Scores for MHPPQ Subscales and Confidence to Manage by Percentage of Time Working With Persons with Mental Illness and/or Their Family (n= 667-672)*

| | n | Mean | Std. deviation |
|---|---|---|---|
| **Therapeutic commitment** | | | |
| Percentage of time | | | |
| 0% - 10% | 211 | 4.58 [abc] | .73 |
| 11% - 25% | 225 | 5.11 [ad] | .74 |
| 26% - 49% | 141 | 5.28 [be] | .73 |
| More than 50% | 91 | 5.66 [cde] | .81 |
| Total | 668 | 5.06 | .83 |
| **Role competency** | | | |
| Percentage of time | | | |
| 0% - 10% | 214 | 4.56[abc] | .88 |
| 11% - 25% | 226 | 5.08[ad] | .80 |
| 26% - 49% | 141 | 5.28[b] | .68 |
| More than 50% | 91 | 5.21[cd] | .87 |
| Total | 672 | 5.01 | .88 |
| **Role support** | | | |
| Percentage of time | | | |
| 0% - 10% | 211 | 4.64[e] | 1.27 |
| 11% - 25% | 226 | 4.88 | 1.25 |
| 26% - 49% | 141 | 4.91 | 1.12 |
| More than 50% | 90 | 5. 21[e] | 1.48 |
| Total | 668 | 4.85 | 1.27 |
| **Confidence to manage** | | | |
| Percentage of time | | | |
| 0% - 10% | 211 | 3.52[abc] | .97 |
| 11% - 25% | 225 | 3.96[adf] | 1.01 |
| 26% - 49% | 139 | 4.26[bf] | .97 |
| More than 50% | 92 | 4. 47[cd] | 1.05 |
| Total | 667 | 3.95 | 1.05 |

Similar superscript indicates a significant difference based on Bonferroni split of the alpha (.05)
[abcd] $p < .001$; [e] $p < .01$; [f] $p < .05$

scores were associated with those who spent 0%-10% of their time working with this population group than all those who spent more than 10% of their time. The mean competency scores of NPs who spent 50% or more of their time working with this group were higher than those who spent from 0% to 25% of their time. No other differences were found.

*Role Support*

One-way ANOVA results indicate that there is a difference in mean scores of role support by percentage of time spent working with MH patients and or their families ($F [3, 667] = 4.58$; $p < .01$). Post hoc comparisons between different time categories conducted to determine where these differences occur reveal that role support scores for those who spent 50% or more of their time was higher than those who spent more than 0% to 10% of their time working with patients with mental illness and/or their families

*Confidence to Manage*

Results of one-way ANOVA indicate that there is a difference in mean scores of Confidence to Manage by percentage of time spent working with MH patients and or their families ($F [3, 666] = 26.38$; $p < .001$). Post hoc comparisons between time categories revealed that scores for Confidence to Manage of NPs who spent 0% to 10% of their work time with this population were lower than for all other time groups. Similarly, those who spent 11% to 25% of their time reported Confidence to Manage mean scores lower than those who spent 26% to 49% and lower than those who spent 50% and more of their time working with this population.

Frequency of Consultation/Collaboration for Psychiatric Issues

The numbers of NPs who accessed consultation/ collaboration for psychiatric issues once every 4 to 6 months (n = 65) and once every 7 to 12 months (n = 41) were smaller compared to the other categories in that question.
To allow for a stronger analysis, those 2 categories were combined. Table 18 includes means and standard deviations entered into the ANOVAs.

Table 18

*Mean Scores for MHPPQ Subscales and Confidence to Manage by Frequency of Accessing Consultation/Collaboration (n=619-622)*

| | n | Mean | Std. deviation |
|---|---|---|---|
| **Therapeutic commitment** | | | |
| Once or more a month | 384 | $5.26^{ab}$ | .78 |
| Once every 2 or 3 months | 130 | $4.93^{ac}$ | .75 |
| Once every 4 to 12 months | 105 | $4.60^{bc}$ | .79 |
| Total | 619 | 5.08 | .81 |
| **Role competency** | | | |
| Once or more a month | 385 | $5.21^{ca}$ | .83 |
| Once every 2 or 3 months | 131 | $4.96^{cd}$ | .77 |
| Once every 4 to 12 months | 106 | $4.57^{ad}$ | .85 |
| Total | 622 | 5.05 | .85 |
| **Role support** | | | |
| Once or more a month | 384 | $5.09^{ea}$ | 1.26 |
| Once every 2 or 3 months | 129 | $4.77^{ef}$ | 1.19 |
| Once every 4 to 12 months | 106 | $4.37^{af}$ | 1.17 |
| Total | 619 | | |
| **Confidence to manage** | | | |
| Once or more a month | 383 | $4.15^{ca}$ | 1.02 |
| Once every 2 or 3 months | 130 | $3.82^{c}$ | .97 |
| Once every 4 to 12 months | 106 | $3.57^{a}$ | 1.03 |
| Total | 619 | 3.98 | 1.03 |

Similar superscript indicates a significant difference based on Bonferroni split of the alpha (.05)
$^{ab}$ $p < .001$; $p^{cd} < .01$; $p^{ef} < .05$

*Therapeutic Commitment*

A one-way ANOVA indicate that mean therapeutic commitment scores are higher for those who access consultation or collaboration more frequently ($F [2, 618] = 32.62$, $p < .001$). Post hoc comparisons between different time categories indicated that mean therapeutic commitment scores of NPs who accessed consultation or collaboration once a month or more had higher scores than those who accessed consultation or collaboration once every 2 to 3 months or once every 4 months to one year. Similarly, those who accessed consultation or collaboration once every 2 to 3 months had higher mean therapeutic commitment scores than those who accessed consultation or collaboration once every 4 months to one year.

*Role Competency*

Results of one-way ANOVA indicate that mean scores of role competency by frequency accessing consultation or collaboration were higher for those accessing more frequently ($F [2, 621] = 25.72$, $p < .001$). Post hoc comparisons between different time categories indicated that the mean scores for role competency scores of NPs who accessed consultation or collaboration once a month or more were higher than those who accessed consultation or collaboration once every 2 to 3 months or once every 4 months to a year. Those who accessed collaboration or consultation once every 2 to 3 months had higher mean role competency scores than those who accessed consultation or collaboration once every 4 months to a year.

*Role Support*

One-way ANOVA indicate that those with higher mean scores of role support accessed consultation or collaboration more often ($F [2, 618] = 15.18$, $p < .001$). Post hoc comparisons found mean role support scores of those who accessed consultation or collaboration once a month or more were higher than those who accessed consultation or collaboration once every 2 to 3 months or once every 4 to 12 months. Again those who accessed psychiatric collaboration or consultation once every 2 to 3 months had higher mean role support scores than those who accessed consultation or collaboration once every 4 to12 months.

*Confidence to Manage*

One-way ANOVA indicated that mean scores in Confidence to Manage were higher in NPs who accessed psychiatric consultation or collaboration more frequently ($F [2, 618] = 15.97$; $p < .001$). Post hoc comparisons revealed that the mean scores for Confidence to Manage of NPs who accessed psychiatric consultation or collaboration once a month or more were higher than those who accessed it once every 2 to 3 months or once every 4 months or more. There was no difference found in mean Confidence to Manage scores between those who accessed consultation or collaboration once every 2 to 3 months or once every 4 months to a year.

Highest Level of Education

The number of respondents who reported that their highest level of education was a diploma ($n =31$) or a doctorate ($n=8$) were not included in the ANOVA analysis because the numbers were insufficient for analysis. Mean scores

for therapeutic commitment ($F [1,629] = 11.91; p <.01$), role competence ($F [1, 632] = 10.34; p< .01$) and confidence to manage ($F [1, 629] = 15.88; p < .001$) for those with a baccalaureate degree were higher than those with a Masters degree (See Table 19). Differences in mean role support scores by highest level of education were not found ($F[1,629]= 3.55; p = .06$).

## Population Size of Community Where NP Works

The numbers of respondents who worked in communities where the population categories were less than 999 (n= 31), 1,000 to 4,999 (n= 74) and 5,000 to 9,999 (n= 51) were fewer compared to the other categories. To allow for a stronger analysis, those 3 categories were collapsed. Each analysis will be presented independently. (Table 20).

### *Therapeutic Commitment*

There is a difference in mean scores of therapeutic commitment for different population sizes of communities where NPs work ($F [6, 649] = 2.34; p < .05$). Post hoc comparisons reveal that scores were higher in those who practiced in community populations of 10,000- 29,999 than in populations of 500,000 and more. No other differences were found.

### *Role Competency*

A difference in mean scores of role competency by population size where NPs work ($F [6, 652] = 2.59; p < .05$) was found. Post hoc comparisons revealed that in community populations of 10,000- 29,999, scores were higher than those who practiced in communities with populations of 500,000 and more. No other differences were found.

Table 19

*Mean Scores of MHPPQ Subscales and Confidence to Manage by Highest Level of Nursing Education (n= 669-673)*

| | N | Mean | Std. deviation |
|---|---|---|---|
| Therapeutic commitment | | | |
| Highest level of nursing education | | | |
| Diploma | 31 | 4.85 | .91 |
| Baccalaureate | 272 | 5.19 | .85 |
| Masters | 359 | 4.97 | .79 |
| Doctorate | 8 | 5.00 | .75 |
| Total | 670 | 5.05 | .83 |
| Role competency | | | |
| Highest level of nursing education | | | |
| Diploma | 31 | 4.94 | .87 |
| Baccalaureate | 272 | 5.15 | .83 |
| Masters | 362 | 4.92 | .90 |
| Doctorate | 8 | 5.21 | .77 |
| Total | 673 | 5.02 | .88 |
| Role support | | | |
| Highest level of nursing education | | | |
| Diploma | 31 | 4.51 | 1.39 |
| Baccalaureate | 272 | 4.98 | 1.33 |
| Masters | 358 | 4.79 | 1.22 |
| Doctorate | 8 | 5.10 | .98 |
| Total | 669 | 4.86 | 1.28 |
| Confidence to manage MH disorders/problems | | | |
| Highest level of nursing education | | | |
| Diploma | 30 | 3.92 | .92 |
| Baccalaureate | 272 | 4.14 | .98 |
| Masters | 359 | 3.81 | 1.06 |
| Doctorate | 8 | 4.20 | 1.58 |
| Total | 669 | 3.95 | 1.04 |

Table 20

*Mean Scores for MHPPQ Subscales and Confidence to Manage by Community Population Size where NP Works*

| | n | Mean | Std. deviation |
|---|---|---|---|
| **Therapeutic commitment** | | | |
| Population size | | | |
| Less than 9,999 | 154 | 5.07 | .77 |
| 10,000 – 29,999 | 85 | 5.29[a] | .82 |
| 30,000 – 99,999 | 94 | 5.12 | .85 |
| 100,000 – 499,999 | 137 | 5.03 | .87 |
| 500,000 and over | 186 | 4.92[a] | .81 |
| Total | 656 | 5.06 | .83 |
| **Role competency** | | | |
| Population size | | | |
| Less than 9,999 | 156 | 5.05 | .76 |
| 10,000 – 29,999 | 85 | 5.27[a] | .85 |
| 30,000 – 99,999 | 94 | 5.11 | .81 |
| 100,000 – 499,999 | 138 | 4.95 | .99 |
| 500,000 and over | 186 | 4.86[a] | .90 |
| Total | 659 | 5.01 | .88 |
| **Role support** | | | |
| Population size | | | |
| Less than 9,999 | 155 | 4.70 | 1.36 |
| 10,000 – 29,999 | 85 | 4.85 | 1.19 |
| 30,000 – 99,999 | 94 | 4.89 | 1.35 |
| 100,000 – 499,999 | 136 | 4.90 | 1.28 |
| 500,000 and over | 186 | 4.95 | 1.15 |
| Total | 656 | 4.86 | 1.26 |
| **Confidence to manage** | | | |
| Population size | | | |
| Less than 9,999 | 154 | 3.97 | .90 |
| 10,000 – 29,999 | 85 | 4.31[ab] | 1.03 |
| 30,000 – 99,999 | 93 | 4.03 | .90 |
| 100,000 – 499,999 | 137 | 3.82[a] | 1.13 |
| 500,000 and over | 185 | 3.78[b] | 1.13 |
| Total | 654 | 3.94 | 1.05 |

[a,b] $p < .01$

Similar superscript indicates a significant difference based on Bonferroni split of the alpha (.05)

*Role Support*

No difference was found in mean scores of role support by population size that the NP works in (F [6, 649] = 1.47; p =.47).

*Confidence to Manage*

Results indicate that there is a difference in mean scores of Confidence to Manage by population size in the community where the NP works (F [6, 647] = 3.15; p < .05). Post hoc comparisons between different population size categories indicated that the mean scores of NPs for Confidence to Manage who work in community sizes where the population is 10,000 to 29,999 were higher than those who work in communities with population sizes 100,000 to 499,999 or 500,000 and more.

Time Since Participation in MH Education Session

While the number of those who had never participated in an education session about one or more mental health issues was small compared to the numbers of those in other categories, this category was included in the analysis. Each analysis will be discussed individually. Table 21 includes means and standard deviation from all independent variables.

*Therapeutic Commitment*

Results indicate that there is a difference in mean scores of therapeutic commitment by length of time since last MH education session (F [4, 664] = 25.33; p < .001). Post hoc comparisons revealed differences among categories of time related to the time since the last education intervention. The mean scores for therapeutic commitment of NPs who participated in an education sessions in 2

Table 21

*Mean Scores for MHPPQ Subscales and Confidence to Manage by Time Since Participation in MH Education (n= 668- 672)*

| | n | Mean | Std. deviation |
|---|---|---|---|
| **Therapeutic commitment** | | | |
| In the last: | | | |
| 6 months | 342 | 5.28[abc] | .77 |
| 7 months to one year | 95 | 5.22[def] | .70 |
| > one year, less than 3 yrs | 128 | 4.75[adg] | .79 |
| 3 or more yrs | 72 | 4.65[be] | .82 |
| Never | 32 | 4.32[cfg] | .80 |
| Total | 669 | 5.06 | .83 |
| **Role competency** | | | |
| In the last: | | | |
| 6 months | 343 | 5.26[abc] | .80 |
| 7 months to one year | 97 | 5.23[hde] | .69 |
| > one year, less than 3 yrs | 129 | 4.81[ah] | .80 |
| 3 or more yrs | 71 | 4.35[bd] | .95 |
| Never | 32 | 4.17[ce] | .84 |
| Total | 672 | 5.02 | .88 |
| **Role support** | | | |
| In the last: | | | |
| 6 months | 342 | 5.08[ga] | 1.27 |
| 7 months to one year | 96 | 4.83 | 1.26 |
| > one year, less than 3 yrs | 128 | 4.68[g] | 1.17 |
| 3 or more yrs | 70 | 4.33[a] | 1.21 |
| Never | 32 | 4.68 | 1.36 |
| Total | 668 | 4.87 | 1.27 |
| **Confidence to manage MH disorders** | | | |
| In the last: | | | |
| 6 months | 342 | 4.22[hab] | .98 |
| 7 months to one year | 96 | 4.01[cd] | .87 |
| > one year, less than 3 yrs | 128 | 3.83[hie] | 1.00 |
| 3 or more yrs | 71 | 3.30[aci] | 1.06 |
| Never | 31 | 3.00[bde] | 1.04 |
| Total | 668 | 3.96 | 1,04 |

[abcdef] $p < .001$; [g] $p < .05$; [h,i] $p < .01$

Similar superscript designates a significant difference (.05)

time categories, within the past 6 months and 7 months to one year time periods were higher than those who had participated in sessions more than one year and less than 3 years previously, 3 or more years and never. Those who had participated in a MH education session more than one year but less than 3 years previously had higher mean scores than those who had never participated in a session.

*Role Competency*

There is a difference in mean role competency scores based on length of time since last MH education session ($F [4, 667] = 32.25$; $p < .001$). Post hoc comparisons between different time categories revealed that those NPs who had participated in a MH education session in the past 6 months and 7 months to less than one year had higher mean scores than those who participated in a session more than one year but less than 3 years previously, 3 or more years and never.

*Role Support*

Results indicate that there is a difference in role support mean scores by length of time since last MH education session ($F [4, 663] = 6.55$; $p < .001$). Post hoc comparisons revealed that those who had accessed a MH education session within the previous 6 months reported higher mean role support scores than those who participated in education sessions in the time periods of more than one year but less than 3 years and 3 or more years previously.

*Confidence to Manage*

Differences in mean Confidence to Manage scores by length of time since last MH education session were found ($F [4, 663] = 22. 11$; $p < .001$). Mean scores

were highest among those who reported accessing a MH education in the previous 6 months and the mean scores decreased as time passed. Post hoc comparisons between different time categories revealed that those who had engaged in a MH education session in the previous 6 months had higher mean scores than those who had accessed education in more than one year, less than 3 years, 3 or more years previously and never. Those who had accessed education in the previous 7 months to one year had statistically significant higher mean scores than those who had accessed education in the previous 3 or more years and those who had never participated in a MH education session. Mean scores for those who had participated in MH education sessions had more than one year, less than 3 years had higher scores than those who had participated in an education session 3 or more years previously and never.

Past Employment Experience in an MH Setting as a Registered Nurse

The number of NPs who had past work experience as a Registered Nurse in a mental health nursing setting in each of the time categories of this question were too few to allow for meaningful analysis, so all categories of employment experience in mental health settings were collapsed into dichotomous categories of 'prior experience' or 'no prior experience.' Mean scores for therapeutic commitment ($F [1, 657] = 20.13$; $p < .001$), role competency ($F [ 1, 660] = 22.34$; $p < .001$), and confidence to manage ($F [1, 656] = 44.24$; $p < .001$) differed depending on whether or not the NP had previous employment experience as a Registered Nurse in a mental health setting. The means scores of those who had prior experience working as a RN in a mental health setting were higher than those

with no experience. No difference was found in role support mean scores by work experience (F [1, 656] = 2.25; $p$ = .134) (Table 22).

Table 22

*Mean Scores for MHPPQ Subscales and Confidence to Manage by Past Employment as a RN in a MH Setting (n=658-662)*

| | N | Mean | Std. deviation |
|---|---|---|---|
| Therapeutic commitment | | | |
| No experience | 516 | 4.97 | .81 |
| Prior experience | 143 | 5.31 | .81 |
| Total | 659 | 5.05 | .82 |
| Role competency | | | |
| No experience | 519 | 4.93 | .85 |
| Prior experience | 143 | 5.31 | .85 |
| Total | 662 | 5.01 | .87 |
| Role support | | | |
| No experience | 516 | 4.82 | 1.30 |
| Prior experience | 142 | 5.01 | 1.20 |
| Total | 658 | 4.86 | 1.28 |
| Confidence to manage | | | |
| No experience | 516 | 3.82 | 1.00 |
| Prior experience | 142 | 4.45 | 1.06 |
| Total | 658 | 3.95 | 1.04 |

Past Employment Experience in a MH Setting as a Nurse Practitioner

The numbers of respondents who had past work experience as a Nurse Practitioner in mental health settings in each of the time categories of this question were small. To allow for meaningful analysis, all the categories of employment experience in a mental health setting were collapsed into

dichotomous categories of ‘prior experience’ or ‘no prior experience.’ Differences were observed in mean scores for therapeutic commitment ($F [1, 646] = 56.02$; $p < .001$), role competency ($F [1, 648] = 49.10$; $p < .001$), role support $F [1, 645] = 11.81$; $p < .01$) and confidence to manage ($F [1, 645] = 55.65$ $p < .001$) by whether or not the NP had previous employment experience in a mental health setting. The means scores of those who had prior experience working as a NP in a mental health setting were higher than those with no experience (Table 23).

Table 23

*Mean Scores for MHPPQ Subscales and Confidence to Manage by Past Work Experience as an NP in a MH setting*

| | n | Mean | Std. deviation |
|---|---|---|---|
| Therapeutic commitment | | | |
| No experience | 523 | 4.93 | .81 |
| Prior experience | 125 | 5.53 | .75 |
| Total | 648 | 5.05 | .83 |
| Role competency | | | |
| No experience | 526 | 4.89 | .87 |
| Prior experience | 124 | 5.48 | .75 |
| Total | 650 | 5.00 | .88 |
| Role support | | | |
| No experience | 523 | 4.78 | 1.27 |
| Prior experience | 124 | 5.21 | 1.25 |
| Total | 647 | 4.86 | 1.27 |
| Confidence to manage | | | |
| No experience | 523 | 3.80 | 1.01 |
| Prior experience | 124 | 4.55 | .97 |
| Total | 647 | 3.94 | 1.05 |

## Status of Employment

Mean scores for each of the *MHPPQ* subscales and the composite variable of Confidence to Manage were compared by employment status. The numbers of respondents who identified casual (n = 12) and 'other' (n = 2) as status of employment were small and therefore were excluded from the ANOVA. No differences in mean scores were found between any of the *MHPPQ* subscales and confidence to manage with respect to status of employment (Table 24).

Table 24

*MHPPQ Subscales and Confidence to Manage by Status of Employment*

| | N | Mean | Std. deviation |
|---|---|---|---|
| Therapeutic commitment | | | |
| Full time | 545 | 5.09 | .83 |
| Part time | 108 | 4.94 | .79 |
| Total | 653 | 5.06 | .83. |
| Role competency | | | |
| Full time | 548 | 5.04 | .89 |
| Part time | 108 | 4.93 | .85 |
| Total | 656 | 5.02 | .88 |
| Role support | | | |
| Full time | 544 | 4.89 | 1.27 |
| Part time | 108 | 4.79 | 1.34 |
| Total | 652 | 4.87 | 1.28 |
| Confidence to manage | | | |
| Full time | 544 | 3.98 | 1.07 |
| Part time | 108 | 3.85 | .92 |
| Total | 652 | 3.96 | 1.05 |

## Unhelpful Questions

Three questions on the demographic component of the survey did not prove to be clear or helpful. Respondents were asked to identify from a large list where they were primarily working. Many circled more than one area. Perhaps the question should have stipulated "circle only one area." The question about ethnic background yielded many responses that proved to be difficult to analyze. Finally, one question asked about "other levels of education" and what the field of study was. This appeared to be interpreted in 2 different ways: some responded by describing many nursing courses and certificates they had acquired while others described courses and degrees other than nursing. Because the question was interpreted so differently, the responses were not included in the analysis.

## Open-Ended Questions

The participants were asked to respond to 3 open-ended questions.[1] The questions were:

1. Describe how your NP training prepared you to work with persons with a mental illness (including mental health problem).
2. What changes if any would you suggest be made to this component of the NP training program?
3. Is there anything else that you would like to comment on about your working with persons with mental illness (including mental health problems)?

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[1] Several respondents commented that the phrase "education program" should be used rather than "training program" in the phrasing of questions 1 and 2.

Participants were directed to use the back of the questionnaire if more space was required to answer the questions. Several did so. The responses to each question were typed out into separate documents to allow for analysis. While this allowed for focused analysis, it did not allow for continuity for one participant's response from one question to the next.

A systematic approach to analysis of the responses was conducted. The responses were first reviewed for the purpose of identifying themes. These themes were numbered and each of the participant's responses was assigned the number of expressed theme. As the review progressed, a discreet set of themes emerged. These themes were reviewed for parsimony and uniqueness. The responses were again reviewed and assessed for accuracy of fit between the theme and participant's response. A third, more cursory review for fit-to-theme occurred when the responses were reviewed and counted to ascertain the number of times each theme was mentioned. On a few occasions an unclear response was made that could not be interpreted with confidence. These comments were excluded from the analysis.

Several considerations became apparent. While some respondents had little to add, others wrote much. Because the NP role and practice differs between and within each jurisdiction, the responses were situated within the context of the respondent's practice. For example, because Ontario NPs are very limited in what and how they can prescribe psychotropics in contrast to NP practice in other provinces and territories, Ontario respondents' description of their education,

practice and recommendations for change was different from those from other areas.

Many respondents made several comments in response to one question and more than one theme was identified from an individual's responses. As a result the total number of responses did not equate to the total number of respondents. Additionally, one respondent answered the questions in French. As the responses were very short, and the author understands some French, the comments were translated and reviewed for accuracy with a bilingual colleague.

The interpretation of the responses was limited by the author's ability to understand and or extrapolate the meaning of the responses. For example, one neonatal NP reported that she had received no training to work with persons with mental illness and felt there was no need for any changes in his or her NP program. In contrast, another neonatal NP wrote about the need for education to work with difficult families and resources available in the community to help these families. In this case it might be that the former NP saw the neonatal NP role very narrowly in that the "patient" was solely the infant, or the question was interpreted differently by the two respondents.

The themes are reported for each question. Selected quotations from the responses are presented as written, including abbreviations, except when clarification promoted understanding.

*Question 10a: Describe How Your NP Training Prepared You to Work With Persons With a Mental Illness (Including Mental Health Problems)*

Of the 680 returned surveys, 95% of respondents answered this question. In addition to the 5% of respondents (n = 36) who did not answer, another 3.2% (n = 22) reported that they did not remember much about the MH component of their NP education. Six respondents noted that they had received their NP education outside of Canada. A further 3.2 % (n = 22) of respondents made comments that did not address the question, or reported that they had not received formal NP education and had been grandfathered into the role.

Of the 644 NPs who answered question 10a, 2.6% (n = 17) commented that they had been encouraged in their NP education to refer patients with MH issues to other resources or that it was the practice in their work setting to refer these individuals on. One NP wrote, “My NP education was inadequate in terms of preparing me to deal with mental illness. The topic was poorly addressed + the message was that these patients needed to be referred to an MD for management.” Another wrote, “Many family physicians were quick to refer to the MH clinic but unfortunately the patients often never followed through- it meant telling their story all over again.”

Three major themes were identified in the responses to this question: aspects of MH education in NP programs; curricular design; and other factors that contribute to a MH knowledge base. These are further broken down into subthemes.

*Aspects of MH Education in the NP Program*

The respondents discussed the specific aspects of their NP education that had prepared them to work with persons with mental illness or mental health problems. Four subthemes emerged: 1) identified gaps in MH education; 2) specialty-specific MH education; 3) benefits of MH education in clinical settings; and 4) generalist approach to NP education.

*Identified Gaps in MH Education*

Twenty-seven respondents stated that they had not had clinical preparation as part of their NP program. One NP wrote, “Theoretical education but without the clinical it was difficult to pull together.” Another wrote, “Fair coverage with actual symptoms + [diagnosis]. Readings on counseling techniques (Ø practical application, Ø guidance from experts). No acknowledgement that mental health will be a large >50% part of a [regular Primary Health Care] practice.”

Thirty-five NPs identified gaps in their education, including what they would have appreciated learning about, as well as the fit between what they learned and how they were expected to practice. For example, one NP wrote, “Student presentations re anxiety, depression with case presentations, interventions, potential drug choices → however not within our scope of practice to order, monitor for side effects.” Similarly another wrote, “I had the opportunity to look after the general health [and] do entrance physicals for patients in a mental health facility for 4 months. I learned a lot but mostly learned how much I didn’t know.”

Many of the respondents (n = 273) reported minimal or no MH education during their NP program. One NP wrote, “This is an area that was only discussed briefly. It was a real shock when I began, and saw the high number of individuals with mental health challenges- they crossed all ages.” Another wrote:

> We had a great deal of information to cover during our initial NP training. I think the issue of mental illness was under-discussed and under-recognized in NP education. The history taking and assessment was seen as similar to regular assessments. We did not get specific things to look for and mental health is seen as a specialty issue which should not be the case.

Perhaps one reason that less attention was spent on MH issues was related to specific jurisdictional policies. One NP shared, “Since we cannot initiate antidepressants or anti-anxiety/ bipolar meds, we spent little time on them and the underling mental illness processes.”

*Specialty-Specific MH Education*

Twenty- six respondents reported completing a specialty program such as pediatrics or adult acute NP program and having MH education specific to the specialty. One NP wrote, “I did a clinical specialty in geriatrics- so with delirium [and] dementia I am very comfortable. Other [diagnoses] less so. “ However, this was not always the case for a given specialty area. For example, one NP wrote, “I work as a NP in a neonatal intensive care unit. I do not have patients with mental illness. None of the parents have had problems besides pre-existing anxiety + depression.” Another wrote:

> I work in Neonatal Intensive Care so there was very limited education on this subject. Our families are often suffering from symptoms of depression, anxiety + acute stress + some have substance abuse problems. My training did not prepare me to work with them.

*Benefits of MH Education in Clinical Settings*

A large number of respondents (n=166) wrote about the benefit of MH experience in a clinical setting. “The most valuable experiences were encounters in the clinical setting. Patients with depression and anxiety were most commonly seen. Occasionally patients with schizophrenia and bipolar disorder were seen; these patients usually already had the support of a psychiatrist.” Many reported caring for persons with mental illness in clinical settings other than specific MH sites. One participant shared:

> The theoretical prep was adequate but my preparedness was dependent on my clinical practicum. MH issues require ongoing follow-up & monitoring to evaluate treatment, therapy choices & often practicums are too short to gain enough knowledge/ experience to feel confident with the varied MH problems present in a clinic.

While this study was not about what MH nursing is, the fact that nurses themselves had misconceptions about mental health nursing is reflected in the following statement:

> I was very fortunate to have had a placement at a community Mental Health Clinic in my NP program. Interestingly, I recall classmates commenting on how they didn’t think it was an appropriate placement for an NP i.e. “do you think your clinical skills are strong enough to be spending time in a setting where you won’t use them?”

*Generalist Approach to NP Education*

Forty-three respondents commented about receiving a “generalist” or “basic” education without going into detail. At times it was unclear if “basic” was used from the perspective that it was “minimal” or that it provided a “foundation.” Some made further comments about how pleased they were with this education while others commented that they sought out more education after this. For

example, one NP wrote, “I am comfortable to follow a stable patient however consult [or] refer if unstable or newly diagnosed through screening.” Other comments included, “It provided us with fundamental basic knowledge re mental illness” and, “Excellent assessment skills; good consultation/ referral networking skills; good understanding of how to integrate mental health issues and assessments into practice.” However, others wrote that the basic approach was not enough, “My NP training provided basic assessment skills/minimal diagnostic preparation/ minimal therapeutic training. I have had to gain these skills [through] further education,” and, “No formal preparation. Focus was Family Nurse Practitioner so more generalized education.”

*Curriculum Design*

*Specific module or course in MH.* Twenty- three respondents wrote about a course or module that they had completed in their NP program. It is not clear how much educational material was involved in a module or course.

*Elements of the curriculum specific to MH.* Respondents (n=149) wrote about many different components of their MH education, including the illnesses they studied, suicide intervention, pharmacology, assessment skills, age specific issues, communication strategies, change theory, assessment tools, clinical guidelines, cultural issues, non-pharmacological treatments, counseling techniques and patho-physiology. A further 93 respondents wrote about elements of curricular design such as the number of hours dedicated to MH (from 2.5 hours to whole term courses), as well as the type of assignments and exercises that promoted learning, such as role playing, readings and group work. The benefit of

expert and knowledgeable speakers, including professionals from many disciplines and persons with mental illness themselves was mentioned. One NP wrote about her perspective on the approach used in delivering education about MH issues, “Nursing theories around self-care, reflection, talking are likely too general and too limited in *managing* or *working with* those with mental illness.” Many wrote about specific illnesses that were covered in the curriculum and their confidence in managing them. However, they often followed this discussion with mention about other topics that were not covered adequately. Given the prevalence of depression and anxiety, the number of times NPs mentioned receiving education about these illnesses was noted. In fact, a number (n = 102) of NPs referred to receiving education in one or both of these disorders.

Thirteen NPs identified self-directed learning activities as an important action to improve their knowledge. One wrote, “I actively sought out mental health issues for learning activities e.g. family assessments, nursing care plans.” Similarly, a few NPs mentioned the need to seek out clinical learning opportunities: “The only training I obtained was a practicum that I arranged myself.”

*Other Factors That Contributed to Mental Health Knowledge*

*Previous education and experience.* Eighty-two NPs wrote about the benefit of previous education and experience, especially through their RN training and work. The following comments illustrate the value attributed to this prior learning: “The only training I received was a single clinical placement during my 4 yrs in the BScN program.”; “Scholarly and Clinical education/experience as [a]

BN gave me the background to work with [the] mental[ly] ill patient. NP education/clinical experience gave me the knowledge to manage [a] crisis situation."; "My background of professional work is more important in my practice than what I learned in NP classes except for medications maybe. A must for NP with no background in MH because these cases are frequent in day to day work." and "Previous work experiences prepared me – [the] NP program reinforced the knowledge that I already had."

*Learning on the job.* Many NPs (n = 78) wrote about how they gained MH knowledge "on the job," often after they had described deficiencies in their NP MH education. One NP wrote, "My personal problem was there was little interest during the academia. Now that I'm working in it full time, it's sink or swim & I prefer to swim + give my clients the best chance!" Similarly, another wrote, "Most of my confidence does not come from NP training, but rather 2 ½ years as RN on psyc unit and 3 yrs as NP on psych unit part time."

*Postgraduate learning.* Accessing post-graduate learning opportunities such as CMEs, seminars, workshops, on-line courses and specialty courses was mentioned by 61 NPs. Specific courses were mentioned, including McMasters modules, NPAO workshops, and a University of Ottawa Continuing Education MH course. Additionally, the respondents described self-directed learning.

*Personal experience.* Nine NPs identified that their own, family and/or friends' experiences with mental illness had contributed to their understanding of MH issues. "My prior nurses training /clinical experience in Emerg/ working as a volunteer@ CAMH and my own experience with raising an ADHD child with the

help of support groups are where my skills and knowledge are based but not from my NP program (except in a minimal amount)."

In summary, NPs frequently identified that they had received minimal or no education in the care of persons with mental illness. Those that had received MH education indicated a number of issues that were covered within the curriculum, including the topics of depression and anxiety. Clinical practicums were valued learning experiences. Several other strategies for learning about MH issues were also highlighted: personal experience; learning in the NP work setting; experience prior to beginning their NP education; and post-graduate and self-directed learning.

### *Question 10b: What Changes if Any Would You Suggest Be Made to This Component of the NP Training Program?*

Of the 680 returned surveys, 62 respondents did not answer this question, or wrote "no comment." The following themes were identified from the respondents who answered the questions: 1) Make no changes to the NP program; 2) Not sure, or do not know what changes to recommend; 3) Add or increase education related to mental health; 4) Specific curriculum or program design recommendations; 5) The role of Continuing Education; and 6) Specialty education.

#### *Make No Changes to the NP Program*

Thirty-nine NPs suggested that no changes were necessary to the MH component of their NP training programs. These comments were often accompanied by a variety of statements, including the perspective that MH is a

specialty area, or perhaps they could manage the primary care of patients with stable mental illness in the context of a collaborative relationship with a physician or psychiatrist. Patients could be referred to specialists if needed. MH was identified as only one of several areas that they would like to have had more in-depth education. Time constraints were identified as barriers to getting more content in this area. One NP wrote, “I felt the program dealt with mental illness adequately for what I intend to use. Most of these individuals are referred to appropriate services.” Another wrote, “None [changes to NP programs] - with the broad backgrounds of NP students it is important for students + clinical placement coordinators to assess learning needs on an individual student basis. Then placements can be tailored to meet needs of the student.”

*Not Sure or Do Not Know What Recommendations to Make*

Several participants (n = 36) commented that they were unable to make recommendations for different reasons, including the length of time since they had graduated, and time constraints of NP education. Current legislation in some jurisdictions around prescribing psychotropics may be a possible reason that education in MH might be constrained, thereby limiting how NPs view their future role. Several wrote that they were unsure what changes could be recommended but at the same time identified particular areas, such as anxiety, depression and dementia that needed to be included in any program.

*Add or Increase Education Related to Mental Health*

Many respondents (n = 244) made recommendations to increase NP education related to MH, often in the context of theoretical education, while citing

specific areas and curricular aspects to focus on. Additionally, 240 participants wrote that a clinical component needed to be added. One wrote:

> This area of my role has always been difficult for me. [I] feel nervous about my skills- it is only with hands on experience that some confidence has developed. Therefore perhaps it is clinical experience that was lacking in my training. [primary care- 6 yrs NP, 20 yrs RN- FT- baccalaureate – oncology nurse]

Another 27 respondents recommended that the clinical component be compulsory and 39 recommended that a specific MH course be added to the curriculum. One NP wrote, “Psychosocial/mental health issues affect every patient (I believe). Therefore it should be a cornerstone of NP education.” Similarly, another wrote about the gaps in NP education in relation to MH and its impact on NP practice and patient care:

> In my experience, both personal and professional, mental health is seriously neglected. It is incumbent on family nurse practitioners to have a high level of knowledge in mental health since such problems as depression, anxiety, addictions and dementia are so common. Leaving the NP to learn about this *after* graduation is a disservice to both the NP and her/his patients. Therefore, please consider a dedicated course *and* practicum placement for student NPs to better prepare them for these patients and their care.

Another respondent wrote, “I think there should be a stronger mental health component in the BScN program (if that has not already happened) and then enhanced in the NP program. It should also cover all ages- children to seniors.” Many NPs referred to the important role that their undergraduate MH education played in their current NP practice. This speaks to the value of RN practice in relation to mental health but cannot address the added roles NPs play in diagnosing and pharmacological treatment of mental illness.

*Specific Curriculum/Program Design Recommendations*

A large number (n = 271) of respondents recommended specific changes to the MH component of the NP program. These included ensuring the following areas were covered: MH issues across the lifespan, population health issues such as working with homeless populations, specific assessment and screening tools, medications and other therapeutics, DSM IV-TR diagnostic criteria, MH prevention, and how to obtain coverage for the financial costs of treatment. A large number of NPs highlighted the need for a counseling course, with some mentioning specific counseling approaches such as cognitive behavioral therapy. This recommendation may reflect specific practice limitations, in that if NPs are not permitted to prescribe many of the psychotropic medications, they may see counseling as a potential area in which to focus and develop skills. Similarly many mentioned ensuring a good understanding of community resources where persons could be referred.

Some NPs recommended that MH educational material be embedded in a chronic disease model while others recommended that all NP streams should cover MH but the material be related to the specific NP stream that they were studying. Where, when, how and by whom MH education should be covered was discussed. It was recommended that the classes be taught by MH experts, individuals with mental illness and other disciplines who work with the population. Others recommended offering on-line courses, self-directed courses, and at least one NP recommended already existing courses like that offered by the University of Ottawa. Specific types of class assignments were recommended,

including case studies and role playing. One NP wrote, "Formalize topics that *need* to be covered versus what peers choose" and, "studying [and] regurgitating info on therapeutics exam is not even close to actually providing primary health care." A few NPs mentioned the challenge of finding appropriate clinical settings for student placements.

Several NPs (n = 31) mentioned concerns about how to add or increase education around MH issues given the current time and curriculum requirements of their NP programs. This concern was often mentioned in the context of the need to increase education not only on MH, but also on other areas such as treatment of muscular skeletal disorders. One NP wrote:

> Include more mental health in theory- in my program I could have arranged for some clinical experience on an inpatient mental health ward (geriatric) which I did not do. There was simply not enough time to cover all areas required in the program. In hindsight this would have been a very good thing to plan (mental health placement [- especially] for the elderly)

*The Role of Continuing Education*

Eighteen respondents mentioned the role of continuing education after graduation. At least one suggested that it was the role of the workplace to educate the NP in MH issues. "[The] NP program- is a generalist program. We can't expect specialty training. If [increasing] education is required that is responsibility of employer/ NP relationship." Another wrote, " . . . Since we don't have time to go in depth on everything, it is the same as all our NP training→ you learn the basics [and] then when you are in practice, you continue to learn the things you need depending on the population in your practice environment."

*Specialty Education*

Twenty-five NPs described MH as a specialty area. Moreover, this comment was frequently written with the statement that the MH education they had was adequate. Specialty MH education could be obtained through the NP programs as a specialty stream or after the generalist program.

> I feel that this is a specialized area of practice [and] although all practitioners potentially see [patients] with mental health issues these [patients] are usually connected with other more specialized resource persons so it could be considered as a stream of practice for those who wish to specialize in this area as it is impossible for practitioners to specialize in all areas.

One NP wrote about the challenges facing specialist NPs given current prescriptive authorities. “I am not sure if you asking specifically about pharmacology – best practice etc- most of the mental health medications cannot be ordered by [Ontario] NPs- some can be renewed. This is a barrier for specialist NPs.”

In summary, while a few NPs saw no need to make changes to their NP program, significantly more recommended increased clinical and theoretical education around mental health issues. Various suggestions about how to accomplish this were made. MH care was considered specialty care by some; however the majority saw it as an important NP role. Current legislation in certain jurisdictions may act as a barrier to expanding NP practice.

### *Question 11: Is There Anything Else That You Would Like to Comment on About Your Working With Persons With Mental Illness (Including Mental Health Problems)?*

This question was answered by 398 of the 680 respondents. The other 282 left it blank or wrote in “no” or “no comment.” This question provided the respondents with the opportunity to write about anything that they thought was relevant.

In analyzing the responses to any open- ended question, in particular this question, the challenge was to interpret the responses as part of a context that may not be evident in the response. For example, one respondent wrote, “Dual diagnosis/substance + mental health Hx abuse” While there were not many responses that were unclear, there were 10 such comments made. These responses were excluded from the analysis. The following themes were identified: 1) Role perceptions in regards to caring for persons with mental illness; 2) Challenges in providing care; and 3) Education needs.

#### *Role Perceptions in Regards to Caring for Persons With Mental Illness*

Included in this theme were subthemes of legislation issues, the relationship between mind and physical care, accessing MH care in a primary health care setting and available supports. Many NPs (n=131) described aspects of their role when providing care for MH patients, **“**I do a *lot* of mental health promotion- at least half of my day involves mental health issues in some capacity. Lots of collaborative practice with shared care counselor [and] psychiatrist.” The value of the NP role in caring for this population was mentioned several times.

"NPs are ideal partners to manage people with mental illness with a psychiatrist taking a holistic view of the person."

Many respondents described their role in association with aspects of their job, their team members, the disorders that they saw in their practice, and how they have been referred patients:

> I work with marginalized inner city population. This type of experience is ESSENTIAL to all primary care NPs to understand mental illness as a component of overall health.
>
> My work setting is in a Family Health team with a strong MH component: 4 social workers, 3 psychologists, 1 PT psychiatrist. This is rare in primary care settings- but it made access to MH services less challenging for this patient population.
>
> I treat mental illness aggressively. All depressed elders are treated (mostly) SSRI's and those who are depressed without dementia, receive counseling. Depression decreases quality of life and a high percentage of elders suffer from depression.
>
> I have a case load comprised of orphaned [patients]- a large percentage of unattached [patients] have mental health issues. Through the interview process they are unable to get a family physician.

A small number of participants did not see the care of those with MH as part of their role for various reasons. Some NPs (n = 15) mentioned that they referred patients with MH issues on to other care providers. Sometimes it was in the context of having another role: "Occasionally my clients have a problem such as depression or anxiety but I work in [a] Sexual Health Program in a Health Unit and usually do not treat mental health problems/ illnesses." Others wrote about what appeared to be challenges they saw in providing MH care: "Very specialized area. It is essential to know one's clinical limitations and refer accordingly." Others talked about a lack of interest in providing MH care: "I did not plan on

working with this type of population as a student. Therefore I did not focus on learning opportunities at that time."

*Legislation Issues*

Twenty-eight NPs wrote about the challenges in providing care within current legislation that limits what can be prescribed and or diagnosed. Of the 28, all but one described the Ontario legislation. One NP from British Columbia wrote that NPs in that province cannot diagnose delirium. Many wrote about how limitations in legislation impacted the patient's health. One respondent wrote, "In Ontario NPs cannot initiate antidepressants. There is a lack of physicians + psychiatrists. When initiation is delayed re meds the client is [at] risk."

*Relationship Between Mind and Physical Care*

Thirty-four NPs mentioned the link between physical and mental health care that they provided in the context of their work situations. Some made comments simply about the fact that the two were inter-linked while others wrote specifically about the challenges of attempting to provide both physical and mental health care during the course of one visit. One wrote, "I feel comfortable but many NPs do not & so much of what we do today, including many acute & chronic illnesses & management of these also have a MH component." Similarly, another wrote, "It seems most [patients] present with some form of mental health issues. Even when being seen for a straight forward episodic visit. Increased training for NPs would be very beneficial."

Another respondent wrote:

> I work with individuals + families affected by cancer. 70% of the Client population I serve experience some form of mental health issues from

> coping issues →suicide ideation. As a HCP, we all need to do a better job@ assessing + managing this aspect of care. Many of my colleagues don’t assess for these issues because they feel ill- equip to manage them + do not have access to mental health professionals.

*Accessing Mental Health Care in a Primary Health Care Setting*

Twenty-one NPs described how persons with mental illness access primary care, or MH care in primary health care settings. Different barriers to accessing care and how NPs view the provision of MH care were mentioned. One respondent shared: “They are part of the population that falls through the cracks in terms of having access to primary health care. Therefore [it is] important that we feel comfortable providing care to this population.”

*Available Supports*

While gaps in education and lack of resources were frequently mentioned, so too was the fact that support was available. Seventy-five wrote about social work, nursing, managerial, psychology and medical support to name a few, in addition to the benefit of multidisciplinary team approaches to MH care and knowing about community resources. One participant believed that the

> NP role is an excellent resource for persons with mental illness + their families because of the holistic approach. I find it satisfying to work with this population because I am in a collaborative practice with psychiatrist + counselor.

Another participant advised that

> NPs need to know their own limits + scope of practice- If in doubt →consult +/or refer on. Need to develop respective collaborative practice with other health care professionals. It works! System wide →more resources + programs are needed.

*Challenges in Providing Care*

Many NPs (n=85) provided descriptions of their interactions with MH patients, their opinions about the care that this population receives and challenges in providing care to this population. For example, one participant identified, "An ability to set aside judgment is the pre-requisite skill." Other subthemes that were evident in the data included lack of MH resources and stigma. One NP wrote:

> This is a field of practice that requires considerable understanding, knowledge + experience + in particular *CARING.* This population can be manipulative so to be "on guard." This population is [increasing] in numbers + will present in a variety of practice settings. I very much enjoy my work with this population.

Similarly another wrote:

> My background is mental health. Encouraging independence is a "must." We tend to want to rescue people, solve the problem. We must empower the client.

Several issues that impact the care that patients accessed and received were identified, including the need to see the patients more frequently, having more time allocated per visit and financial limitations were identified. These patients sometimes required considerable "time + effort," had more "no shows," and MH issues were often overlooked for "more urgent" issues. One respondent wrote about the tremendous needs frequently identified during the course of a visit:

> Huge need for support, for techniques for people to use to adapt to change, life crisis etc. Coping skills are often lacking. Major determinants of health linked with MH challenges e.g. Income, education, social environments, support systems, genetics etc.

One NP in particular wrote about a disturbing incident, “There is a high level of staff burnout. I left a clinic providing primary care to mostly people with severe persistent mental illness after 2 ½ hours; was assaulted once by a pt.” Another participant wrote about both difficult and positive aspects of proving care to this population

> Some of them are quite scary because their behavior/moods can change dramatically from day to day- whether on [appropriate] rx or not. Many do *not* comply with proposed [medication] regimes (or don’t take meds appropriately) +/or do not attend MH counseling sessions when efforts are undertaken to arrange same for them.
>
> Interesting study- it made me think about how I approach MH issues in PHC + clarified that [although] they occasionally scare and frustrate me I do love seeing pts with mental illness/MH issues. Get appropriate support /rx + improve/enjoy life again

*Lack of MH Resources*

NPs (n = 83) wrote about lack of resources for MH issues. Some mentioned the disparity between services available in urban and rural settings, “I have worked in both acute care + outpatient clinical settings + treating mental illness is very different in those situations. Of course we need more mental health resources in both sectors.” One NP wrote about the lack of access to consultation with his or her collaborating physician: “Very frustrating where I work there is little support. The MD I am supposed to consult is not always available,” while another wrote about the lack of MH resources from a systemic perspective as well as issues with legislation that impact the NP’s ability to provide care:

> Horrible systemic problem i.e. no psychiatrists [?] to see clients mental health + addictions → leaves us needing to ask our consulting family md as we cannot initiate meds, but we often have more interaction/expertise/ Rapport/ opportunity to f/u- our consulting MD often [nervous] to

> authorize therefore clients are short changed- why is it okay to leave undertreated or untreated mental health but we would never do the same for HTN

One NP wrote about the opportunity for NPs in Ontario to take on more care of these persons:

> Access to psychiatric/ mental health services is lacking and presents an opportunity for NPs. Unfortunately, in Ontario, NPs cannot prescribe the drugs relevant to mental health disorders. If this barrier was removed, I believe that there are NPs with mental health backgrounds/ continuing education who could increase access to mental health services.

*Stigma*

The role that stigma plays in limiting the care that this population accesses was mentioned by several (n = 9) NPs. One wrote:

> People with mental illness are often treated as criminals by police services I see them brought into ER's in handcuffs when talking + support provides much needed de-escalation. Publicly there is so much stigmatization when so many people experience mental illness.

Another wrote, "I feel that society (including other NPs) don't [think] working with mental illness is really 'primary care' thus it is looked 'down upon.'" This statement spoke to both stigma and how NPs see their role providing primary care. Another wrote about a way to decrease stigma among NP students: "-reduce stigma- have someone with a mental illness come to a class + talk about what it is like." Similarly another offered:

> We need to develop strategies as NPs to advocate + support our pts with mental health issues to assist then to keep mentally stable and out of the hospital (inpatient settings) and to keep active in the community. We can play a role in ↓ the public stigma and shame associated with mental illness.

*Education Needs and Gaps*

The need for more education, specific gaps, and how they have been or could be addressed was described by seventy-three participants. Specific educational gaps included the need for more information about personality disorders, dementia, "orientation to humane solutions," self-care for the caregiver, cognitive behavioral therapy and schizophrenia. Some wrote about the need for all NPs to have a strong MH education, "Not really except *all* NPs need a very strong background with mental health theoretical and clinical knowledge- because it affects *all* aspects of health care." Another believed that her lack of knowledge impacted her comfort working with the population: "In general I would say if I had a choice I would prefer not to work with them →probably because of my knowledge deficit therefore lack of comfort." One wrote about how he or she increased her knowledge by seeking out education post graduation and another wrote about how his or her NP curriculum prepared the NP to work with this population:

> As an NP my first job was working (for 2 yrs) in a homeless shelter where 95% of my pts had mental health +/or addictions issues. My NP course only taught me to problem solve, but not to recognize or any skills to deal with these issues. That job is where I got any knowledge about working with MH people.

One NP shared her thoughts about who "owns" MH and previous educational experiences:

> Is mental illness a coveted domain? It is so specialized that RN's, NP's, APN's in general practice cannot at least know how to provide general care all the while feeling confident in your assessment + interpretation- respecting that it is a subspecialty of medicine? The education piece in undergrad form was limiting + negative. After 3rd yr →there was never

> any further mention or practice. Why is that? I never developed any confidence to nursing those primarily with mental illness.

*Value of Past Learning Experiences*

Thirty-one NPs mentioned the past experience as an NP and a Registered Nurse that they brought to the provider-patient relationship. A few talked about the value of ongoing experience. This concept was mentioned in the previous questions as well. One NP wrote that experience is "Important to build on the already existing competencies of RNs i.e. support, education tx listening skills." Another described how she or he relied on past experience when the necessary knowledge had not been gained in the NP program: "most of my [psychiatric] knowledge came from my 25 years in ER and not the NP course. I often feel I go by "the seat of my pants."

In summary, many participants described their individual work and learning experiences, gaps in the health care system, their MH education and provincial legislation and their NP role in respect to MH care. Many expressed personal feelings about working with persons with mental illness and a few wrote about the stigma associated with these illnesses.

# CHAPTER 5

# DISCUSSION

In this study the perception of Canadian NPs toward their role in caring for persons with mental illness was explored. The results demonstrate that the therapeutic commitment model, until now tested only with other nursing groups, can be applied to NPs. Moreover, NPs reported acceptable levels of commitment to working with individuals with mental illness and moderate levels of self-perceived competency and support in such a role. Many factors, including education, work experience, community size and the NPs' knowledge of community resources were found to be associated with elements of the therapeutic commitment model. Because the useable response rate was higher than is often seen for health professionals, the results are more likely to represent the target population of all Canadian NPs who are interested in participating in research; thus this research contributes to knowledge of Canadian NP practice. The findings have significant implications for practice, education and future research; these will be discussed in this chapter.

## A Snapshot of Canadian NPs

Aspects of the demographic profile of NPs were similar to those of nurses' described in other Canadian reports. For example, the Canadian Nurses Association (CNA) 2008 Registered Nurse workforce profile (2010), the Canadian Institute for Health Information (CIHI) 2004 NP profile (Canadian Institute for Health Information & Canadian Nurses Association, 2006) and this study all reported the average age of their participants to be approximately 45

years. Similarly, males represented approximately 6% of both the 2008 RN population (2010) and this study. However, notable differences were also seen; the 2008 Canadian RN profile reported 57.8% of the RNs worked full-time, while almost 70% of the NPs in CIHI 2006 report worked full-time. Approximately 82% of the NPs in this sample worked full-time.

The population size of communities where NPs are working was also explored. This was not found in the other reports that were examined. Almost one- half of the NPs (n = 327) reported working in community sizes of 100,000 and more people. This suggests that many NPs are working in urban settings where presumably there is increased access to MH specialists and support.

Perhaps most striking is the increase in the percentage of master and doctoral prepared NPs. While 21.6% of the 2004 NP population had a masters or doctoral degree as their highest level of education, 55% of the NPs in this study reported having a Masters or Doctorate degree. This increase in Master and Doctoral level prepared NPs may be, in part, a reflection of the Canadian Nurses Association position that a graduate degree in nursing is necessary for NPs to meet the competency requirements for advanced nursing practice (Canadian Nurses Association, 2009). Increasing level of education and increasing numbers of NPs with more education promotes credibility in the role, provides a stronger knowledge base which should improve patient care, and promotes educational standardization.

In 2004 fourteen NPs (1.7%) reported working in psychiatry/ mental health (Canadian Institute for Health Information & Canadian Nurses Association,

2006). Thirteen (1.9 %) NPs in this study reported working in this area. The 2008 RN work profile (Canadian Nurses Association, 2010) reported 5.1% of RNs were employed in psychiatry/mental health. One hundred twenty-six NPs in the current study reported past work experience in a MH setting as a NP; 145 worked as a RN in a MH setting and 157 had other psychiatric/ mental health work experience. These numbers may, in fact, represent many of the same respondents, however it suggests that there are a number of NPs working with MH nursing experience that will hopefully enhance their NP practice.

Moreover, while NPs may not identify themselves specifically as ‘working in mental health,’ they are very much involved in providing this type of care. Two hundred twenty-six NPs (33.5%) in this study reported spending 11% to 25% of their work time with persons and or families of persons with mental illness and 141 (20.9%) reported spending 26% to 49% of their time in this work. A further 93 (13.8%) reported spending more than 50% of their time working with this population. A similar finding was also noted in a survey of Primary Health Care nurse practitioners (n = 371) in Ontario; 39 % of the NPs worked with people with addiction or mental health problems (Sloan, Pong, Rukholm, & Caty, 2006). This supports the extent of MH knowledge and competency NPs must have.

## The Therapeutic Commitment Model

The present model clearly identifies three concepts; however the relationships between the concepts and how they contribute to the overall framework are unclear. Angus, Lauder and Reynolds, the developers of the model suggested that “therapeutic commitment, as measured by the *MHPPQ*, was

dependent upon Role competency... and Role support" (2001, p. 639). Additionally, they stated that, "therapeutic commitment is conceptualized as a uni-dimensional concept, rather than a concept with a number of dimensions, each of which must be measured by a subscale . . . " (2000, p225). However, the authors did not report testing any interventions that would identify causal relationships. They did comment in this same article that "scores for each item are summed to give an overall score" (2000, p.223) and they reported the total score for each subscale found in that and a previous study. Correlations between the subscales were reported, however correlations do not definitively prove causality. Ultimately, it is unclear whether the three concepts that comprise the model, role competency, therapeutic commitment and role support, independently influence the overall concept, or if the overall concept of therapeutic commitment is the sum total of the three concepts. Other more complex variations of potential relationships also exist; perhaps for the novice NP, role competency and commitment are impacted by support but for the NP who feels more competent, less support is required, therefore as competency increases, the need for support decreases. Influences such as amount of time spent working with persons with mental illness, past MH work experience as a NP, and even past work sites may influence the model.

I would argue that the results of this study support a model of therapeutic commitment in which the three individual elements are correlated, rather than the three concepts being components of one overall concept of therapeutic commitment. For example, a NP may have competence and role support but lack

commitment to working with a particular population for individual reasons. Alternatively, a NP may have competence and require little support but still be very committed. This study has identified other variables, such as past work experience, theoretical and clinical MH education, and highest nursing education, that are positively correlated with therapeutic commitment, role support and role competency. More studies are needed to assess the nature of the relationships between these variables and the three concepts in the framework.

Another source of confusion is the use of the term 'therapeutic commitment' for both the name of the framework and one of the elements of the framework. An alternative name for this phenomenon would enhance clarity. I would recommend the use of the term 'therapeutic capacity' as the name for this model because all three of the concepts impact the NP's capacity to practice, both generally and closely within the patient-provider relationship. In addition, this would minimize confusion when referring to the overall framework versus the concept of therapeutic commitment within the framework.

This model provides a useful framework for developing and supporting NP mental health practice and education. The model has the capacity to inform employers, policy makers, educators and NPs themselves about NP characteristics that enhance the care provided to persons with mental illness and mental health problems. Elements of the model can be reinforced across the spectrum of the health care system, from policy levels, where program planners establish networking strategies and the infrastructure to support all primary care providers,

to individual NPs seeking what they require to achieve higher degrees of competency, commitment and support.

The World Health Organization recommends that health care systems promote the integration of mental health care into primary health care settings (World Health Organization & Wonca, 2007). The need to improve human resource capacity for mental health has been identified as a key step to achieving this goal. With 400 NPs in this study identifying primary care as a primary work setting, the WHO's recommendation is relevant to NP practice. This same organization has identified several challenges that need to be addressed in order to achieve the goal of integration. Challenges include educating NP's and all health workers in mental health skills so that they "overcome reluctance" to work with persons with mental disorders (p.4). Additional staff are required to take on the mental health work, and regular supervision from mental health professionals is needed. Ensuring that NPs are educated to a specified level of competency, counteracting reluctance to work with this population, thereby increasing commitment and providing supervision or support, mirror the components of the therapeutic commitment model.

## Role Support, Role Competency, and Therapeutic Commitment

NPs reported moderate ratings of therapeutic commitment, role support and role competency. One cannot expect every NP to have high ratings of competency and commitment to working with all varieties of populations. Because of the prevalence of mental health disorders in the Canadian population, primary care NPs need to have high ratings in these factors. The results of this

study also identified variables that correlated to higher levels of competency, role support and therapeutic commitment. Being aware of these variables is useful for identifying areas to focus on if the model is utilized. This model could be applied if NPs working with this population had appropriate support, such as access to mental health specialists and ongoing education. With these supports, levels of therapeutic commitment would increase. Although other factors that affect therapeutic commitment may not have been elucidated by this study, the potential benefit of using this model has been demonstrated.

One factor complicating NP role development in Canada is the impact that health care administrators and nurses association policy makers have on role and employment development. While the role is becoming more widely established in Canada, the variety of available positions is still quite limited. For example, in New Brunswick the nurses association has not yet fully endorsed specialty NP roles. It is possible that some NPs may be working in areas they would not choose if they had more options, including areas where mental illness and mental health problems are more prevalent, such as street clinics or primary care settings.

The strong correlation between levels of therapeutic commitment and role competency revealed in this study is remarkable: as NP competency increases, therapeutic commitment rises. If processes or programs are instituted to increase the level of one influence in the model, an increase in the level of the other influences can be expected. Similarly, the correlation between Confidence to Manage and role competency was strong.

The eight items that comprise the Confidence to Manage variable provided an opportunity to identify specific areas of clinical confidence, acknowledging that mental health issues are not limited to these items. The information obtained from the responses to this variable builds on understanding gained from the Role Competency subscale. Instead of a general rating of overall feelings of competency, specific strengths and weaknesses are identified. This new variable enhances the strength of the Therapeutic Commitment model; confidence to manage specific disorder-states provides a more in-depth understanding of what contributes to NPs' perceptions of Role Competency. This information can be used to guide curriculum development. Weber and Snow (2006) described an entry-level course that all NP Majors at the University of Texas are required to take; the NPs and their preceptors benefitted from the acquired knowledge.

A review of 30 Canadian undergraduate schools of nursing found that 20 percent did not have a stand-alone mental health nursing course (Tognazzini, Davis, Kean, Osborne, & Wong, 2009). Similarly, 20 percent did not offer specific stand-alone mental health clinical experience. Among those schools of nursing that did provide focused MH education, an average of 3 hours per week for 12 weeks was dedicated to theoretical education, and 9 hours was dedicated to clinical learning activities. This suggests that many NPs who were practicing had very minimal MH undergraduate education. If they are not getting adequate MH education at the graduate level as many of the respondents in this study described, serious gaps in knowledge and skills can result. Respondents in this current study

recommended mental health education within NP programs and proposed changes they would make to their programs, including increasing theoretical and clinical MH components.

Much of the research to examine the competence of NPs to manage specific mental disorders focuses on depression management (Shell, 2001; Adamek & Kaplan, 2000; Groh & Hoes, 2003; Burman, McCabe, & Pepper, 2005). NPs have generally reported higher levels of competency in assessing and treating depression than therapeutically managing it, but neither of these levels tends to be high. For example, a survey of American NPs (n = 1,647) found that 65% of the respondents felt they were adequately prepared to assess and diagnose depression but only 51% felt they were adequately prepared to treat the illness (Groh & Hoes, 2003). A 2004 survey of 16,062 American NPs, representing a number of specialty and general areas found that 33.4% of Family NPs prescribed 6 to 15 antidepressants per week and 10.8 % prescribed more than 15 antidepressants per week (Goolsby, 2005). Anthony and colleagues (2010) reported that the clinician's comfort in prescribing antidepressants and counseling patients with depression were two of several factors which impacted the decision to refer the patient to a mental health specialist. NPs in the current study reported feeling confident "therapeutically managing" depression, including assessing, diagnosing and treating, and consulting or collaborating about depression.

NPs in this study rated their "confidence to manage" substance dependence as neither insecure nor confident, an equivocal rating. In a recent survey of 233 New York State advanced practice nurses, of whom 81% (n = 189)

worked in a NP role, it was found that the modal response for time spent on addiction-related content in their graduate program was zero (Campbell-Heider et al., 2009). More than sixty percent of the respondents in that study identified that added content to NP curriculum would be very valuable.

The impact of increased MH education has been reported in a recent study of Australian undergraduate nursing students (n = 149) (Henderson et al., 2007). Higher self-ratings of MH knowledge, skills and attitudes were reported following 7 weeks of theoretical education as compared to 5 weeks. Clinical experience later in the course of this study led to further increases in self ratings of skills, knowledge and attitudes. Those students with more theoretical preparation and clinical experience were less likely to endorse negative stereotypes, less anxious regarding mental illness and more likely to want to pursue a career in psychiatric/ mental health nursing. The results of this current study support these findings; those NPs who rated their clinical and theoretical MH education higher had higher levels of therapeutic commitment and role competency.

Several NP characteristics correlated with levels of therapeutic commitment and role competency were revealed in this study. These included knowledge of local mental health services, feeling ill-equipped to care for persons with MH/psychiatric concerns, the number of years experience working as a NP, other psychiatric/ MH work experience and theoretical and clinical educational preparation. Similarly, variables that were associated with differences in commitment scores included the percentage of time spent working with persons and/or their families, frequency of psychiatric consultation or collaboration, time

since participation in a mental health education session and past experience as both a Registered Nurse and NP in a MH setting. A comparison of therapeutic commitment and role competency in those working in community population sizes of 10,000 to 29,999 compared to community population sizes of 500,000 and over found that those who worked in the smaller community size had higher levels of role competency and therapeutic commitment.

One explanation for these findings is that NPs who are interested in or committed to working in a particular area will seek out opportunities to learn about or work in that area. This could explain why past MH work experience was related to increased levels of therapeutic commitment. Similarly, it is speculated that those who are interested in caring for a specific population would be more knowledgeable about factors that contribute to the care of those persons, such as knowledge of MH community services. NPs who are interested in working with this population may seek out learning opportunities, just as interested student NPs may invest more in MH learning and consequently apply a higher rating to their theoretical and clinical education.

Status of employment, years experience as a RN and gender were not associated with levels of therapeutic commitment, role support or role competency. One might have expected that status of employment and years of experience as a RN would contribute increased maturity and expertise to what the NP brings to clinical practice, but this assumption was not supported

## Limitations

Many of the specific issues that constitute limitations in this study have been discussed in Chapter 3. As discussed earlier, concerns about the model itself and directions for further work have been identified. With respect to the measurement tool, there is discrepancy in the terms used to operationalize role support. Lauder and colleagues (2002) have defined the concept of role support to mean, "a self-perception that one has a source of specialist support "(p. 484). However, the role support items on the *MHPPQ* use the words "someone," "colleague" and "a more experienced person" and not "psychiatrist," "physician" or "mental health worker." In contrast, the demographic question in the current study about accessing collaboration or consultation uses the word "psychiatric." This may have introduced some confusion about how to score the items on the *MHPPQ* if the respondent interpreted "someone," "colleague," or "experienced person" to mean a MH expert as the demographic question suggested. Role support as a concept was correlated with therapeutic commitment but because very few of the variables studied were found to have strong relationships with role support, the possibility exists that other variables not studied impact levels of role support. Alternatively, the sensitivity of the role support measure may be low.

A few methodological issues are evident. With respect to the number of contacts with potential participants, an alternative 5$^{th}$ contact (i.e. an electronic mail or telephone contact) with the NPs, as recommended by Dillman (2007), was omitted. However, the useable response rate in this study was an acceptable 57.2% and the impact of a 5$^{th}$ contact would likely have been minimal. The

useable response rate of almost 60 percent is considered good and allows for generalizations to the target population.

However, because not all NPs in Canada consented to receiving contacts for research purposes, and Quebec and Saskatchewan NPs were not included in the survey distribution by way of their respective nurses associations, the results cannot be generalized to all Canadian NPs. Additionally, the various strategies and occasional processing errors through the provincial and territorial jurisdictions for identifying the potential participants may have impacted who responded. Again, because of the large response rate, the effect of these variations was likely minimal.

A large response rate can lead to potential Type 1 errors (false positives) in statistical analysis, especially if the analysis was done arbitrarily (Coughlan, Cronin, & Ryan, 2009). The systematic analysis conducted in this study limits the potential for this type of error, but this may have been the reason, for example why male gender was correlated to higher Confidence to Manage scores in the current study. Conversely, the risk of Type 2 errors (false negatives) is lowered by larger sample sizes.

It is unclear why almost 40% of the potential participants did not return their completed surveys. The first question on the survey asked the respondent to identify if they had not been working in the role for the previous 6 months, something the nurses associations were not able to identify. Eighty-two surveys were returned with this reason, thereby eliminating these NPs from the sample. The use of Dillman's method (2007) helped to develop a survey that minimized

response burden but the timing for the distribution of the surveys may have contributed to non-responses. Most of the surveys were distributed at the end of the academic school year and beginning of summer holiday season.

A cross-sectional survey design provides a snapshot view of a population. It is limited in that it does not allow for examination of causality (Coughlan, Cronin, & Ryan, 2009). In order to make definitive predictions, outcomes that will occur as a result of an applied intervention, such as the implementation of an education intervention to promote role competency or policy change to increase role support, will need to be tested. However, because of the correlations identified in this study, there is support for the theoretical model, and strong rationale for recommending an experimental study, in order to examine the impact of a given intervention and make further statements of causality.

## Future Research

The explanations for some of the survey findings of this study remain unclear and point to topics for future research. For example, it is unclear why a baccalaureate degree as the highest level of a NP's nursing education (compared to a masters degree) was associated with higher therapeutic commitment and role competency scores. It was expected that, if the model of therapeutic commitment was supported, increased education would promote an increased sense of competency and therefore, increased therapeutic commitment. It is also unclear why mean therapeutic commitment and role competency scores differed between those who worked in community population sizes of 10,000 to 29,999 and those

who worked in community sizes of 500,000 and more. These are topics that need further exploration.

Future research could address the implementation of strategies to enhance the elements of the therapeutic model for targeted groups of NPs and then examine the outcomes in terms of therapeutic commitment, role competency and role support levels. Results could be compared to a treatment as usual group. For example, levels of role competency, role support and therapeutic commitment could be measured before and after a MH worker was added to a primary care team. Results could be compared to primary care teams who do not have a mental health worker on their team. Additionally, it would be advantageous to measure patient outcomes after building a program that applies the model and comparing the results between the two groups.

The impact of having a family member or friend with a mental illness was not addressed. Having a friend with mental illness has been found to decrease stigmatizing attitudes of nursing students toward mental health patients (Sadow, Ryder, & Webster, 2002). Similarly, the influence of other individual NP characteristics such as emotional intelligence, spirituality and cultural background on the elements of the model should be examined (Hurley, 2008; Weller, & Grunes, 1988). Clark and colleagues (2005) looked at the impact of work satisfaction on the 3 elements of the therapeutic commitment model. This may be captured partly in questions about role support, but other variables may also have a role and could be explored.

Few variables were found to be strongly associated with the concept of role support and the NPs in this study did not firmly endorse being supported in their roles. However, increased awareness of variables that impact these feelings may guide both strengthening of the role and the care of this population. More research needs to be conducted, examining this concept. Issues around how the concept of role support was measured were identified earlier and more work needs to be done around the tool.

In terms of methodology, the many and varied policy regulations of the provincial/territorial nurses associations complicated the implementation of this research study. It would be advantageous for future researchers to have a standardized national approach to enabling and approving nursing research. The achievement of a national approach to conducting nursing research across provinces may be a project that a national nursing group, such as the Canadian Association for Nursing Research, could explore.

The target population was all NPs who consented to participating in research. In discussion with provincial and territorial nursing association representatives, many NPs have identified no interest in participating in nursing research. This phenomena needs to be studied: one of the roles of advanced practice nurses is to participate in research.

## Implications for Education

The results of this study showed very clearly that most NPs see the provision of MH care as an essential aspect of their practice. NPs identified many serious gaps in their theoretical and clinical education that affect their entry-to-

practice competencies. The eight mental illnesses and mental health problems used to form the composite Confidence to Manage variable correlated closely with levels of Role Competency and Therapeutic Commitment. These and other factors correlated with competency levels in this study need to be targeted for educational interventions.

Employers and policy makers need to be educated about the benefit of providing role support and ensuring NPs have the opportunity to build MH competence. Additionally, NPs themselves would benefit from learning about the concept of therapeutic commitment and how it impacts their mental health practice. In this study many reported seeking out opportunities to increase their feelings of competency, both as students and practicing NP's. However, as more than one NP wrote, mental health skills are not always valued until after the NP begins to work in the role.

Continuing education opportunities for MH topics need to be identified and publicized so that NPs know where and how to access relevant education. Given the size of Canada and the distribution of NPs across it, education that is available through distance education courses/ seminars/ workshops would be an asset. Support of and access to interdisciplinary education is important as well; this could be achieved initially at university education level followed by participation in interdisciplinary rounds and education sessions once in the workplace.

It would be advantageous to have a national, standardized approach to MH-NP education. In this way, NPs could be prepared consistently for writing

their NP licensing exams. The development of the set of competencies and curricula needs to be guided by NPs working in the various clinical fields, in collaboration with NP educators, with adjustments for jurisdictional conditions. Mental health issues from a population health perspective, including prevention, health promotion and therapeutic management strategies need to be included. Both NPs and patients would benefit.

Certification for Psychiatric Mental Health Nursing granted through the Canadian Nurses Association could be expanded to incorporate the scope of NP practice. Such credentialing requires a national perspective as well as commitment from both the NP community and the Canadian Federation of Mental Health Nurses. It would be a step in the evolution of the NP role in our country.

## Conclusions

The results of this study show that NPs are therapeutically committed, and feel competent and supported in their role, but there is room for improvement. The role of Canadian NPs presents them with a tremendous opportunity to impact the health and lives of persons with mental illness and mental health problems. The model of therapeutic commitment is a valid and useful framework upon which to develop the NP role in regard to caring for persons with mental illness. Furthermore, NPs carry a moral and legal responsibility to ensure that they are competently practicing within their scope of practice. One NP respondent in this study captured the existing situation well:

> It is incumbent on family nurse practitioners to have a high level of knowledge in mental health since such problems as depression, anxiety, addictions and dementia are so common. Leaving the NP to learn about this *after* graduation is a disservice to both the NP and her/his patients.

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APPENDIX A

COMPARISON OF REPORTED PSYCHOMETRIC TESTING AND

RESULTS OF RESEARCH USING THE *MHPPQ*

| | α (Internal reliability) | Correlations | Mean scores/# of subscale items (SD) | Average score |
|---|---|---|---|---|
| Current study (n=680) | | | | |
| RS[1] | .92 | RS- RC (r= .42, p < .001) | 24.3/5 (1.27) | 4.9 |
| TC[2] | .92 | TC-RS (r= .36, p < .001) | 65.7/13 (0.83) | 5.1 |
| RC[3] | .90 | RC-TC (r= .75, p < .001) | 45.2/9 (0.88) | 5.0 |
| Angus, Lauder, & Reynolds (2001) (n=152) | | | | |
| RS | .89 | RS-RC (r=.30, p <.001) | 14.2/4 (5.2) | 3.5 |
| TC | .84 | TC-RS (r=.27, p <.001) | 56.2/14 (9.3) | 4.0 |
| RC | .87 | RC-TC (r= .61, p <.001) | 29.6/9 (7.9) | 3.3 |
| Lauder, Reynolds, Reilly, & Angus (2000) (n=82) | | | | |
| RS | .83 | RS-RC (r=.49, p< .01) | 17.8/4 (4.7) | 4.5 |
| TC | .91 | TC-RS (r=.27, p <.05) | 59.0/14 (11.2) | 4.2 |
| RC | .83 | TC-RC (r= .53, p<.01) | 33.4/9 (8.3) | 3.7 |

*(table continues)*

| | α (Internal reliability) | Correlations | Highest mean scores/# of subscale items (SD) | Average score |
|---|---|---|---|---|
| Lauder, Reynolds, Smith, & Sharkey (2002) (n=185) | | | | |
| RS | .76 | (Not reported) | 19.8/4 (3.1) | 5.0. |
| TC | .87 | | 68.7/14 (9.1) | 4.9 |
| RC | .82 | | 37.2/9 (8.0) | 4.1 |
| Clark, Parker, & Gould (2005)[4] (n=163) | | | | |
| RS | Reported “comparable to those obtained by Lauder et al” | Reported “comparable to those obtained by Lauder et al” | 22.2/6 (5.9) | 3.7 |
| TC | | | 50.2/12 (10.2) | 4.2 |
| RC | | | 41.4/12 (5.9) | 3.5 |

[1]RS= Role Support [2] TC= Therapeutic Commitment [3] RC= Role Competency
[4] Clark, Parker, & Gould adapted the *MHPPQ,* adding to and subtracting several items from the tool

# APPENDIX B

## SURVEY QUESTIONNAIRE AND MENTAL HEALTH PROBLEMS

## PERCEPTION QUESTIONNAIRE

***If you have not worked in the Nurse Practitioner role in the past 6 months, please check below and return the questionnaire, incomplete. Thank you for your consideration.***

***___No, I have not worked as a Nurse Practitioner in the past 6 months***
***If you have worked as a Nurse Practitioner in the past 6 months, please complete the questionnaire and return it in the included self-addressed envelope.***

**Please circle the correct responses**

**1. Over the past month, what percentage of your time at work is spent working with individuals with mental illness (including mental health problems) and /or their families?**
   1. 0% -10%
   2. 11% -25%
   3. 26%-49%
   4. 50%-75%
   5. More than 75%

**2. Please rate frequency that you access consultation/ collaboration for psychiatric issues?**
   1. Once or more a month
   2. Once every 2 or 3 months
   3. Once every 4 to 6 months
   4. Once every 7 to 12 months
   5. Psychiatric consultation not available
   6. Psychiatric consultation available but not necessary

**3. Occasionally NPs feel that they are ill-equipped to provide care for an individual with a mental health problem. Has this ever happened to you?**
   1**.** Yes
   2. No (If your answer is No, please proceed to question 5)

   **4. If yes, how frequently does this feeling of being ill-equipped occur?**
      1. Once a month or more
      2. Once every 2 or 3 months
      3. Once every 4 to 6 months
      4. Once every 7 to 12 months
      5. Other

**Please circle on a scale of 1 to 5 how you would rate:**

**5. Your knowledge of services offered by your local public community mental health agencies**

1______________2________________3______________4_______________5
Don't know the services Very knowledgeable

**6. Your knowledge of other community mental health services (i.e. private counselors, education groups or support groups)**

1______________2________________3______________4_______________5
Don't know the services Very knowledgeable

**7. Your NP *theoretical* educational preparation for working with individuals with mental health issues**?

1______________2________________3______________4_______________5
Not prepared Very well prepared

**8. Your NP *clinical* educational preparation for working with individuals with mental health issues**?

1______________2________________3______________4_______________5
Not prepared Very well prepared

**9. Please rate your confidence in your skills and knowledge to therapeutically manage the following mental health disorders and issues, from 1 "very insecure" to 7 "very confident"**

| | Very insecure 1 | Quite insecure 2 | Insecure 3 | Neither insecure nor confident 4 | Confident 5 | Quite confident 6 | Very confident 7 |
|---|---|---|---|---|---|---|---|
| 1. Depression | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. Anxiety | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. Attention deficit hyperactivity disorder | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. Schizophrenia | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. Substance dependence | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. Bipolar disorder | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. Suicide ideation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. Dementia | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**10. a) Describe how your NP training prepared you to work with persons with a mental illness (including mental health problem).**

______________________________________________________________________

**b) What changes if any would you suggest be made to this component of the NP training program?**

______________________________________________________________________

**11. Is there anything else that you would like to comment on about your working with persons with mental illness (including mental health problems)?**

______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________
____________________________________________________________

**2. Where are you *primarily* working now? Please circle the area**

| **Direct Patient Care** | | **Administration** |
|---|---|---|
| 1. Primary Care | 10. Medical/ Surgical | 18. Nursing service |
| 2. Maternal/Newborn | 11. Several Clinical Areas/Float | **Education** |
| 3. Mental Health/Psychiatry | 12. Occupational Health | 19. Student Programs |
| 4. Pediatrics | 13. Critical/Intensive Care | 20. Employee Programs |
| 5. Ambulatory Care | 14. Oncology | 21. Patient/Client Programs |
| 6. Geriatrics/ Extended Care | 15. Tele-practice | **Research** |
| 7. Rehabilitative Care | 16. Emergency | 22. Nursing Research |
| 8. Chemical Dependency | 17. Dialysis/Nephrology | 23. Other research |
| 9. Community Health | | **Other (Please identify)** |

**Please complete the following demographic information**

**13. Province/Territory of Residence:**

1. British Columbia
2. Alberta
3. Saskatchewan
4. Manitoba
5. Ontario
6. New Brunswick
7. Nova Scotia
8. Prince Edward Island
9. Newfoundland and Labrador
10. Northwest Territories
11. Nunavut

**14. Population size of community that you work in:**

1. Less than 999
2. 1,000 - 4,999
3. 5,000 - 9,999
4. 10,000 - 29,999
5. 30,000 – 99,999
6. 100,000 – 499,999
7. 500,000 and over

**15**. **Please mark years of experience as a registered nurse**

**___ years**

**16. Please mark years of experience** as **a licensed nurse practitioner/ extended practice/ extended class nurse**

___ years

**17. Status of Employment**

1. Full time
2. Part time
3. Casual
4. Other _________

**18. Please circle the highest level of nursing education you have achieved**

1. Diploma
2. Baccalaureate
3. Masters
4. Doctorate

**Please identify your past experience of employment in a *MENTAL HEALTH setting*:**

| Past employment experience in a ***mental health*** **setting** | No experience | Less than 2 years | 2 or more years but less than 5 years | 5 or more but less than 10 years | 10 or more years |
|---|---|---|---|---|---|
| 19. As a registered nurse | 1 | 2 | 3 | 4 | 5 |
| 20. As a NP | 1 | 2 | 3 | 4 | 5 |

**21. Other psychiatric/ mental health work experience?**

1. No
2. Yes

**22. If yes, please identify, (i.e. teaching, counseling, other clinical setting)**

______________________________________________

**23. When have you participated in an education session about one or more mental health issues? Please circle if it has been in the last:**

1. 6 months
2. 7 months to one year
3. more than one year, less than 3 years
4. 3 or more years
5. never

**In the next section you will be asked to give your opinions on your involvement with patients with mental health problems. You will be asked to rate how you feel on a scale from 1 STRONGLY DISAGREE to 7 STRONGLY AGREE: There are no wrong or right answers.**

| | | **Strongly disagree 1** | **Quite strongly disagree 2** | **Disagree 3** | **Neither agree nor disagree 4** | **Agree 5** | **Quite strongly agree 6** | **Strongly agree 7** |
|---|---|---|---|---|---|---|---|---|
| 1 | I feel that I know enough about the factors which put people at risk of mental health problems to carry out my role when working with this client group | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | I feel I know how to treat people with long term mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | I feel that I can appropriately advise my patients about mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | I feel that I have a clear idea of my responsibilities in helping patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | I feel that I have the right to ask patients about their mental health status when necessary | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6 | I feel that my patients believe I have the right to ask them questions about mental health problems when necessary | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | I feel that I have the right to ask a patient for any information that is relevant to their mental health problem | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | If I felt the need when working with patients with mental health problems I could easily find someone with whom I could discuss any personal difficulties I might encounter | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| 9 | If I felt the need when working with someone with mental health problems I could easily find somebody who would help me clarify my professional difficulties | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|
| 10 | If I felt the need I could easily find someone who would be able to help me formulate the best approach to a patient with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11 | I am interested in the nature of mental health problems and the treatment of them | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12 | I feel that I am able to work with patients with mental health problems as effectively as other patients who do not have mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13 | I want to work with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14 | I have the skills to work with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15 | I feel that I can assess and identify nursing problems[1] of patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16 | I feel that there is nothing I can do to help patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 17 | I feel that I have something to offer patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 18 | I feel that I have much to be proud of when working with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 19 | I feel that I have a number of good qualities for work with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 20 | Caring for people with mental health problems is an important part of a nurse practitioner's role | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 21 | In general, one can get satisfaction from working with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 22 | In general, it is rewarding to work with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 23 | I often feel uncomfortable when working with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 24 | In general, I feel that I can understand patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 25 | On the whole, I am satisfied with the way I work with patients with mental health problems | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 26 | When working with patients with mental health problems I receive adequate supervision [2] from a more experienced person | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 27 | When working with patients with mental health problems I receive adequate ongoing support from colleagues | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

[1] "Nursing problems" include the scope of NP practice
[2] "Supervision" is a term used to describe access to support and education from an experienced colleague

Thank you!

APPENDIX C

FIRST CONTACT LETTER

Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness.

232 Roderick Row,
Saint John, N.B.,
E2M 4J8

June 2, 2009

Dear Colleague,

A few days from now you will receive in the mail a request to complete a short survey for a research project. The survey concerns how Nurse Practitioners (NPs) across Canada see their role when working with persons with a mental illness.

I am writing ahead of time because we know that many people like to know beforehand that they will be contacted. This project is important because it will help us understand NP practice. Also, we hope the results will help guide NP education and role development. In the end, we feel the results of this study have the potential to impact the health care that persons with mental illness receive.

Thank you for your time. Because of your generous help, our research can be successful.

Sincerely,

Anne Marie Creamer, RN, PhD (student), NP
Doctoral Student Researcher

Wendy Austin, RN, PhD
Principal Investigator

# APPENDIX D

## SECOND CONTACT LETTER

Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness

232 Roderick Row
Saint John, N.B.,
E2M 4J8

June 7, 2009

Dear Colleague,

You are invited to participate in a study of how Nurse Practitioners (NPs) see their role when caring for persons with mental illness. You can help us a lot by taking a few minutes to share your thoughts and experiences. Results from this study will be used to identify factors that impact NPs' work with this population. Also, the results will be published in a nursing journal (s), sent to university NP programs and reported at local, provincial and national conferences where possible. If you would like a copy of the results, please let me know and it will be sent to you.

Your answers are strictly confidential and the results will be published in a way that cannot identify the person. This includes the survey results from areas where there are only a few NPs working. This survey is voluntary and there is no payment for completing it. It should take about 15 minutes to complete.

There is no direct personal benefit to participating in this research; however we are hoping that your responses will help us understand how NPs see their role when caring for persons with mental illness. The results may potentially impact NP education and how the NP role develops. There are no personal risks to you by participating in this study. Returning the survey implies your consent to participate. This is a University of Alberta student project. The student lives in Saint John, New Brunswick and the surveys are to be returned to Saint John where the data will be securely stored at Saint Joseph's Community Health Centre for a minimum of five years.

If another study is conducted in the future using the same information you have provided, an ethics review will again need to be conducted. If you have any questions or comments about this study, please contact the University of Alberta Health Research Ethics Board at 780-492-0302. Collect calls will be accepted.

Thank you very much for participating in this study.

Sincerely,

Anne Marie Creamer, RN, PhD (student), NP  Wendy Austin, RN, PhD
Doctoral Student Researcher  Principal Investigator

# APPENDIX E

## THIRD CONTACT LETTER

Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness

232 Roderick Row,
Saint John, N.B.,
E2M 4J8

June 14, 2009
Dear Colleague,

Last week a survey seeking your thoughts and ideas about your Nurse Practitioner (NP) role when caring for persons with a mental illness was sent to you. This has been sent to NPs across Canada.

If you have already returned the survey to us, please accept our heartfelt thanks. If not, we would really appreciate it if you could send off your completed survey as soon as possible.

We are grateful for your participation because it will help us understand how NPs see their role. The results of this study may impact NP education and practice. We feel that it is important that NPs aim for a high level of competency in providing care and that the health care system supports NPs in their role.

If you have any questions or comments about this study, please contact the Health Research Ethics Board at the University of Alberta, at 780-492-0302. Collect calls will be accepted.

If you have not received your questionnaire, or it was misplaced, please e-mail us at acreamer@ualberta.ca or fax to 506-632-5657, Attention Anne Marie Creamer.

Sincerely,

Anne Marie Creamer, RN, PhD (student), NP
Doctoral Student Researcher

Wendy Austin, RN, PhD
Principal Investigator

# APPENDIX F

## FOURTH CONTACT LETTER

Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness

2323 Roderick Row,
Saint John, N.B.,
E2M 4J8

July 2, 2009
Dear Colleague,
About 3 weeks ago a survey was sent to you asking you about your thoughts and experiences caring for persons with mental illness. If you have completed it and sent it back to us, thank you very much. You do not need to complete this form.

However, you may not have had a chance to complete and return it. A blank survey has been included in case you have misplaced your original. We think the results of this study will be very important in understanding NP experiences caring for this population.

We are writing again because your responses will help ensure that we have the most accurate understanding possible. Although we sent the survey to NPs across Canada, it is only from hearing back from nearly everyone that the results are truly representative.

Your answers are strictly confidential and the results will be grouped with others from across Canada and reported as a summary. No single person who responded will be identified. This survey is voluntary and there is no payment for completing it. It should take about 15 minutes to complete. We are hoping that your responses will help us understand how NPs see their role when caring with persons with mental illness.

We hope that you choose to take part in this survey. If you have any questions or comments about this study, please contact the Health Research Ethics Board at the University of Alberta, 780-492-0302. Collect calls will be accepted.

Sincerely,

Anne Marie Creamer, RN, PhD (student), NP
Doctoral Student Researcher

Wendy Austin, RN, PhD
Principal Investigator

APPENDIX G

RESEARCH LICENSE AURORA RESEARCH INSTITUTE

Licence No. 14604
File number 12 408 170
August 28, 2009

# 2009
# Northwest Territories Scientific Research Licence

*Issued by:* **Aurora Research Institute – Aurora College**
Inuvik, Northwest Territories
*Issued to:* Dr. Wendy Austin
University of Alberta, Faculty of Nursing
3rd floor Clinical Sciences Building
Edmonton , AB
T6G 2G3 Canada
Phone: (780) 492-5250
Fax: (780) 492-1926
Email: wendy.austin@ualberta.ca

*Affiliation:* University of Alberta, Faculty of Nursing (U of A)
*Funding:* MindCare New Brunswick

*Team Members:* Judy Mill
Anne Marie Creamer
*Title:* **Role Perceptions of Nurse Practitioners in Regard to caring for Persons with Mental Illness**

*Objectives:* The goal of the proposed research is to understand how Nurse Practitioners (NPs) in Canada perceive their role when caring for individuals with mental illness or mental health problems. A theoretical model of therapeutic commitment, including the concepts of role support, role competency and therapeutic commitment will be tested.

*Dates of data collection:* August 29, 2009 to December 31, 2009

*Location:* Participants will complete the questionnaires in the time and place of their choice throughout the Northwest Territories.

Licence No.14604 expires on December 31, 2009
Issued in the Town of Inuvik on August 28, 2009

*** original signed ***
____________________________
Pippa Seccombe-Hett,
Director, Aurora Research Institute

# Notification of Research

I would like to inform you that Scientific Research Licence No. 14604 has been issued to:

Dr. Wendy Austin
University of Alberta, Faculty of Nursing
3rd floor Clinical Sciences Building
Edmonton , AB
T6G 2G3 Canada
Phone: (780) 492-5250
Fax: (780) 492-1926
Email: wendy.austin@ualberta.ca

to conduct the following study:
**Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness**

Please contact the researcher if you would like more information.

**SUMMARY OF RESEARCH**
This licence has been issued for the scientific research application No.1021.

The goal of the proposed research is to understand how Nurse Practitioners (NPs) in Canada perceive their role when caring for individuals with mental illness or mental health problems. A theoretical model of therapeutic commitment, including the concepts of role support, role competency and therapeutic commitment will be tested. It is hypothesized that NPs with adequate support from consulting psychiatrists, physicians or other mental health professionals and adequate educational preparation will report a sense of role competency and consequently increased therapeutic commitment to working with persons with mental illness.

Mail-out survey questionnaire was chosen as the research method. The Mental Health Problems Perception Questionnaire (MHPPQ), a 27 item summated rating scale will be used (Lauder, Reynolds, Reilly & Angus, 2000). A demographic section will include questions such as experience working with individuals with mental illness or mental health problems, education about these illnesses and their management, years licensed as a NP and community size. The target population is NPs in all Canadian provinces and territories (excluding Quebec and Yukon) who identify English as their language of contact or fluency in English.

The distribution framework for the questionnaires will be Dillman's Total Design Method. Participants will receive four mailings; the first will introduce the study, the second will include a more detailed explanation of the study and the questionnaire, the third will remind the participants to complete the survey if they have not already done so and or thank the participant for returning the survey and the fourth mailing will resend the questionnaire with a cover letter.

The data will be analyzed using SPSS. Responses from three open ended questions will be examined and themes will be reported.
The results will inform NPs, NP educators, nursing associations, policy makers and employers about how NPs view their role when caring for this population. It has the potential to impact curriculum development of the NP role, policy and program development and mental health support for the role.

Results that demonstrate that NPs feel competent, supported in their role and therapeutically committed to working with this population will enhance the credibility of the NP role as an option for accessing health care. Less positive results will help identify areas where the NP role may be enhanced and the resultant benefits to persons with mental illness could be substantial.

The results will be published in nursing journal(s) and presented to the research funding agency, MindCare New Brunswick and nursing conferences where possible. Copies of the results will be sent to the nursing association in the NWT, to those who request them and to the Canadian Federation of Mental Health Nurses which may include nurses in the NWT.

The fieldwork for this study will be conducted from August 29, 2009 to December 31, 2009. Participants will complete the questionnaires in the time and place of their choice. The Researcher is in contact with the Registered Nurses Association of Northwest Territories and Nunavut to access the participants.

Sincerely,

____________________________

Paulo Flieg,
Manager, Scientific Services
DISTRIBUTION
Beaufort-Delta Health and Social Services
Department of Health & Social Services - GNWT

# APPENDIX H

# SAMPLE LETTER SENT TO NURSES ASSOCIATIONS AND CEOS OF NWT HEALTH DISTRICTS

Susan Neilson
Executive Director
College of Registered Nurses of Manitoba
Winnipeg, MN

232 Roderick Row
Saint John, N.B.
E2M 4J8

Dear Ms. Neilson,

I am writing to request contact with Registered Nurses (Extended Practice) in Manitoba who are willing to participate in nursing research. I am a PhD nursing student at the University of Alberta and the research is part of my degree requirement. My research question is about how NPs or RN(EP)s see their role when caring for persons with mental illness. This will be a descriptive cross-sectional correlational study. I have chosen to use a questionnaire as my research method. I will be sending it to NPs across Canada (with some exclusion criteria).

The participants will be sent four contact letters, two of which will include the questionnaire. Completion of the questionnaire should take about 15 minutes. Included in a demographic section are a few open-ended questions.

The results will be analyzed using a SPSS program. Themes from the responses to the open-ended questions will be identified. No identifiers are requested on the questionnaires and the results will be reported in summaries in order to protect confidentiality. As per the policy of the University of Alberta, the data will be kept for 5 years, in either a locked cabinet in my place of employment at the Saint Joseph’s Community Health Centre in Saint John, or in a locked cabinet in my home. After the 5 years are up, the results will be disposed of by placing them in a confidential document disposal unit at Saint Joseph’s Community Health Centre.

The names of those who will have access to the data from the research include:
Dr. Wendy Austin, Principal Investigator, PhD supervisor, Faculty of Nursing, University of Alberta
Dr. Judy Mill, Co-investigator, PhD supervisor, Faculty of Nursing, University of Alberta
Joanne Lewis, Research Assistant
Erika Goble, University of Alberta, Faculty of Nursing, Research Assistant

Please find enclosed a copy of the review from the ethical committee at the University of Alberta.

The source of funding for this research is MindCare New Brunswick, based in Saint John, New Brunswick.

The eligibility criteria for this study include NPs or RN (EP)'s working in Canada and who:

1. Self-identify as being fluent in English **or** identify English as the language of contact.
2. Are registered with the College of Registered Nurses of Manitoba
3. Agree at the time of registration to be contacted for non-Nursing Association
4. related purposes
5. Have practiced as an RN(EP) in the past 6 months.

I am hoping to get the surveys distributed once approval for the same has been received from the various nurses' associations and relevant ethical review boards across Canada. The schedule for participant contacts follows. I have also included a copy of the cover letters and questionnaire.

*Contact Timings and Content of Each Contact*

| Contact | Timing | Method | Content |
|---|---|---|---|
| 1 | Start date | Pre-notice letter | Inform participant that the questionnaire will arrive in a few days and his or her participation will be greatly appreciated |
| 2 | 5 days later | Questionnaire | Questionnaire, detailed cover letter and postage paid return envelope |
| 3 | 12 days later | Letter | Thank you for returning the questionnaire and asking those who have not returned it yet to do so |
| 4 | One month later | Replacement questionnaire | Replacement questionnaire, detailed cover letter and postage paid return envelope |

The results will be published in nursing journals(s) and presented at MindCare New Brunswick's research meeting. Because some of the questions are related to education and experience working with persons with mental illness, I plan to forward the results to the Canadian Federation of Mental Health Nurses and University Nurse Practitioner programs across Canada. I will also forward a copy of the results to your organization and any NPs who ask for a copy of the results.

Thank you for your time.

Sincerely,

Anne Marie Creamer, RN, PhD (student), NP
Doctoral Student Researcher

Wendy Austin, RN, PhD
Principal Investigator

APPENDIX I

UNIVERSITY OF ALBERTA HREB ETHICAL APPROVAL FORM

## APPROVAL FORM

Date: April 2009

Principal Investigator: Wendy Austin

Study ID Pro00004192

Study Title: Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness

**Expiration Date: April 5, 2010**

Thank you for submitting the above study to the Health Research Ethics Board (Health Panel). Your application, along with revisions received March 30, 2009, has been reviewed and approved on behalf of the committee.

The ethics approval is valid until April 5, 2010. A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Health Research Ethics Board does not encompass authorization to access the patients, staff or resources of Capital Health or other local health care institutions for the purposes of the research. Enquiries regarding Capital Health administrative approval, and operational approval for areas impacted by the research, should be directed to the Capital Health Regional Research Administration office, #1800 College Plaza, phone (780) 407-1372.

Sincerely,

Glenn Griener, Ph.D.
Chair, Health Research Ethics Board (Health Panel)

*Note: This correspondence includes an electronic signature (validation and approval via an online system).*

# APPENDIX J

# STANTON TERRITORIAL HEALTH AUTHORITY REVIEW OF RESEARCH APPLICATION

**Community Organization**
**Review of Research License Application**

*To be completed by Researcher*
(**Attach copy of license application)**

The **Stanton Territorial Health Authority**

Is requested to review the application of
Dr. Wendy Austin

To do the following study in the Northwest Territories:
**Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness**

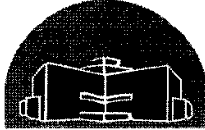
***To be completed by Community Organization***
Our Organization has recommended the following:

**Yes, we support the research application.**

Date: June 26, 2009

**Glenda Vardy Dell**
**Heather Chang**
**Co-Chair Ethics Committee**
**Stanton Territorial Health Authority**

**Please return completed form to:**
**Manager Scientific Services**
**Aurora Research Institute**
**P.O. Box 1450**
**Inuvik, NT**
**X0E 0T0**
**Fax: (867) 777-4264**



**STANTON TERRITORIAL HEALTH AUTHORITY**

June 26, 2009

Dr. Wendy Austin
Faculty of Nursing , University of Alberta
3rd Floor, Clinical Sciences Building, Edmonton, Alberta
T6G 2G3

**Re: Ethical Approval for Research Study: Role Perceptions of Nurse Practitioners in Regard to Caring for Persons with Mental Illness**

Dear Dr. Austin:

This letter is to confirm the Stanton Territorial Health Authority Ethics Committee has reviewed your research proposal on June 19, 2009. We provide to you this ethical approval with one comment. As we only have two Nurse Practitioners working here at Stanton Territorial Hospital, we would request that the setting where individuals work not be included to protect the information shared by those two individuals. There are other NP's in the Northwest Territories but these are the only two working in acute care settings.

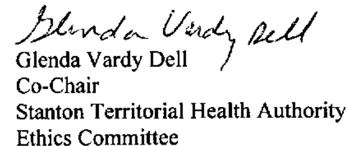
Pursuant to the *Scientists Act* of the NWT, you are required to obtain a license to conduct research in the NWT from the Aurora Research Institute. **Without exception,** all research in the NWT must be licensed. This includes work in indigenous knowledge as well as in the physical, social and biological sciences. Through the licensing process, information about your work is shared with other researchers and northern residents. Summaries of the research conducted each year are distributed to media, community organizations and other researchers. In addition, research information is added to existing and developing scientific databases. ARI will request a copy of the ethics approval you have received. Their website can be located at:

http://www.nwtresearch.com/

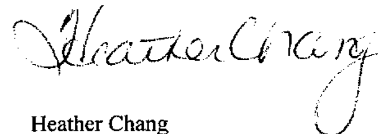
Please also contact Ms. Jeannette Hall (Registrar, Professional Licensing, Health and Social Services) to determine if you or your co-investigator will have to secure a Medical Research Permit. She can be reached at (867) 920-8058 or via email at: jeannette_hall@gov.nt.ca.

We wish you all the best with your research.

Sincerely,



Glenda Vardy Dell
Co-Chair
Stanton Territorial Health Authority
Ethics Committee



Heather Chang
Co-Chair
Stanton Territorial Health Authority
Ethics Committee

Copy to: Ethics Committee Minutes