

**The Prevalence of Post-Traumatic Stress Disorder Among  
Home and Community Care Nurses Working in Alberta and Saskatchewan  
First Nations Communities.**

By

Debi Matias

A Thesis Submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfilment of the requirements of the degree of

MASTER OF NURSING

Faculty of Nursing  
University of Manitoba  
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March 23, 2007

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**UNIVERSITY  
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# Master's Thesis/Practicum Final Report

The undersigned certify that they have read the Master's Thesis/Practicum entitled:

The Prevalence of Post-Traumatic Stress Disorder Among Home and  
Community Care Nurses Working in Alberta and Saskatchewan First  
Nations Communities

submitted by

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in partial fulfillment of the requirements for the degree of

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## Abstract

Post-traumatic stress disorder (PTSD) is a psychological disorder that occurs following exposure to a critical incident. This descriptive study was designed to determine the prevalence of PTSD among Alberta and Saskatchewan nurses working in First Nations communities, the nurse's knowledge of what constitutes a critical incident, and identification of a stressful situation. This replication study attempted to validate the findings from 4 Manitoba nursing studies. Participants completed a nursing questionnaire, the Impact of Events Scale and the Brief Symptom Inventory. Lazarus'(1966) theory of stress and coping provided the theoretical framework. The prevalence rate for PTSD was found to be 33% using Burges'(1988) PTSD Scoring Scale. Results showed that participants have an understanding of, and are exposed to critical incidents. These nurses are at risk for developing PTSD and nursing implications are discussed.

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## Chapter 1

### Introduction

This chapter describes the background for the study, indicating the problems encountered by home and community care nurses working in First Nations communities in Alberta and Saskatchewan. The statement of the problem, the purpose of the study, definitions of terms, the research questions investigated, and the conceptual framework are included.

### Background

Nursing is recognized as a high stress profession. Nurses are exposed to stressful situations and violence everyday in their work environments. While Hesketh et al. (2003) found that patients were the main source of physical assaults, there is a potential for violence from virtually every person with whom the nurse is in contact in the workplace. Previous research studies (Arnetz & Arnetz, 2000; Corneil & Kirwan, 1994; Crilly, Chaboyer & Creedy, 2004; Henderson, 2003; Hesketh et al., 2003; Rippon, 2000) investigating violence in nursing, reported that there is not any nursing workplace that is immune to the potential for violence. To date, nurses working in home and community care in First Nations communities have not been investigated regarding their risk for exposure to violence.

Violence is a concern in First Nations communities in Canada, where the crime rate is approximately three times higher than the national average (Brzozowski, Taylor-Butts & Johnson, 2006). Of particular interest for this study is the risk of violence for home and

community care nurses in First Nations communities. Brzozowski, Taylor-Butts and Johnson (2006) report that, in 2004, 34% of violent incidents that occurred in First Nations communities were around or in the victim's home, which is double the Canadian statistic of 17% of crime in or around the victim's home.

First Nations communities in Alberta and Saskatchewan receive their health care services from a plethora of nurses. Community health nurses work in 47 First Nations and Inuit Health Branch (FNIHB) funded facilities in Alberta and 76 Health Centres in Saskatchewan. In Alberta, the nurses are Registered Nurses, employed by FNIHB, and in Saskatchewan the Registered Nurses are First Nations employed. These nurses provide primary care treatment services, as well as public health programs. There are also public health nurses, employed by either the First Nations band, or FNIHB working in nursing stations or health centres. These Registered Nurses administer public health services such as immunizations, not acute treatment services.

Home and community care nurses are employed by FNIHB, a First Nations band, or a tribal council and they deliver the Home and Community Care Program in Alberta and Saskatchewan. The Home and Community Care Program consists of seven essential service elements. These are client assessment, home care nursing, managed care - case management and referrals to outside community service providers, home support services, respite care, access to medical equipment and supplies, and, record keeping with data collection (Health Canada, 2000).

In Alberta there are 100 home and community care nurses, consisting of 69 Registered Nurses and 31 Licenced Practical Nurses working in 57 First Nations

communities in the three treaty areas of Treaty 6, Treaty 7 and Treaty 8 (Health Canada, 2005). The population of these communities ranges from less than 30 (Bighorn First Nation) to over 7000 persons (Blood First Nation) (Department of Indian Affairs and Northern Development, 2006), with an eligible First Nations population for the Home and Community Care Program of 58,305 based on 2002/03 statistics (Health Canada, 2005). Case load statistics from the Electronic Service Delivery Reporting Tool (E-SDRT), as of September 2006, show that the Home and Community Care Program in Alberta is providing services to 3,351 clients (Linda Baich, personal communication, October 19, 2006).

In Saskatchewan, there are 131 home and community care nurses, consisting of 109 RNs and 22 LPNs working in 82 First Nations communities in six treaty areas, Treaties 2, 4, 5, 6, 8 and 10. The population of these communities ranges from 10 (Wood Mountain First Nation) to over 5,000 persons (Peter Ballantyne Cree Nation) (Department of Indian Affairs and Northern Development, 2006), with an eligible First Nations population for the Home and Community Care Program of 52,168 based on 2002/03 statistics (Health Canada, 2005). Case load statistics from the E-SDRT, as of September 2006, show that the Home and Community Care Program in Saskatchewan is providing services to 5,729 clients in the four tribal council areas utilized in this study (Deb Kupchanko, personal communication, October 11, 2006).

Home care nursing is its own specialty and is one of the least understood nursing practices in all of the health care system (Green, 1998). Community health nurses working in First Nations communities focus on the treatment needs of clients and preventative programs are only delivered sporadically. There is, however, a partnership between the

community health nurses and the home and community care nurses. Clients may move between the two program areas, depending upon their health care needs, at different times for the management of illnesses. Nurses working in the home care role have a comprehensive knowledge base encompassing the entire life span, includes principles of teaching and learning, and the requirement to work independently. Home care provides opportunities for earlier hospital discharge and the ability to avoid hospitalizations for clients. Pringle (1988) states that home care enables clients to be treated for acute and chronic diseases as well as to die in their homes if they so choose.

The role of the home and community care nurse working in a First Nations community is to provide community based acute home care nursing services based on physician instructions and nursing policies and procedures. The nurses conduct assessments, consult with other health care professionals, and teach family members skills to increase the client's comfort and prevent further care requirements (Health Canada, 2000).

Home and community care nursing services were deemed an essential addition to the existing nursing services by Health Canada due to the high incidence of chronic diseases, such as diabetes, in First Nations communities (Health Canada, 2003). The elder population is increasing and they are in need of assistance with personal care and disease management activities (Health Canada, 2003). Indeed, the lack of home care nursing services in First Nations communities has been an issue for over 15 years (Health Canada, 2000).

In 1997, a working group was formed to address this problem, consisting of representatives from Health Canada, the Department of Indian and Northern Affairs Canada, and First Nations (Health Canada, 2000). In 1999, this led to the development of

the Home and Community Care Program for First Nations people in Canada administered through FNIHB. Health Canada commenced providing direct health care services in 1962 in First Nations and Inuit communities. FNIHB is a branch of Health Canada, a federal government department, with a mandate to provide health care services to First Nations and Inuit people (Health Canada, 2006). The Home and Community Care Program in First Nations communities builds capacity within these communities by collaborating and partnering with other providers to deliver home care services. The program is delivered by personal care workers recruited from the community who are supported by LPNs and/or RNs employed as program workers (Health Canada, 2000).

Home nursing and support services are compatible with Aboriginal values. The services respect traditional medicine and holistic health care values when assisting clients and their families with healing (Health Canada, 2005). The accessibility to the Home and Community Care Program services affords clients the ability to remain in the community for a longer time period with maintained or improved quality of life (Health Canada, 2000). An analysis of provincial home care data in Alberta found that the hours of care increased and the number of home care clients served doubled over the ten year period of 1991-2001 (Wilson, et al., 2005).

Rice (1992) states that home care nursing is science and sensitivity in practice. A care plan is developed to coordinate and implement multi-disciplinary therapies. Longclaws (1996) states that these plans may include appropriate cultural components, and when utilized in an environment to which the client is accustomed, may enable the client to respond more positively to the care provided. The home and community care nurse also

supervises personal care workers who carry out personal care activities for clients. They are also able to make referrals to other agencies when the need arises (Health Canada, 2000).

The main work environmental factor that contributes to the potential of violence toward home and community care nurses is the setting where home and community care nursing programs are delivered. According to McGillivray and Comaskey (2000) the under reporting of violence in First Nations communities is due to persons being fearful of the court proceedings and a perceived lack of confidentiality within the community. The workplace setting for home and community care nurses is a home in a First Nations community. This home may be defined as a house, mobile home, or a multi-unit unlicensed elder centre. Many of these houses are weather beaten, overcrowded, about the size of an urban garage, and are easy to break into (York, 1992). It is not uncommon to have broken windows replaced with particle board which decreases light and ventilation. One third of First Nations homes in Canada require major repairs (First Nations Centre, 2005).

Many of the homes in First Nations communities can be described as sub-standard homes with a wood stove, lack of running water, and improper sewage disposal, which Gregory (1988) states contributes to the lower health status of First Nations people. This substandard housing leads to an increased exposure to diseases, such as Tuberculosis (Clark & Riben, 2005). In 1999, Alberta First Nations communities reported 28 active cases of Tuberculosis, with Saskatchewan First Nations reporting 72 active cases (Clark & Riben, 2005). The homes of First Nations people are often violent due to complex factors which include poverty, substance abuse, overcrowding, and family conflict (Kirby & LeBreton, 2002; Health Canada, 2005; Standing Senate Committee on Social Affairs, Science and

Technology, 2002).

A large number of First Nations people live in poverty ridden conditions. The unemployment rate for Canada's First Nations in 1997-98 was triple the national average (Kirby & LeBreton, 2002). In 1995, the annual average income for First Nations people in Canada was reported to be \$14,055. This is less than the general population annual household income of \$24, 474 (Standing Senate Committee on Social Affairs, Science and Technology, 2002).

The high unemployment rate in First Nations communities has been suggested as a contributing reason for the abuse of substances as a coping mechanism to deal with the impoverished conditions in which First Nations exist (Health Canada, 2005). In Alberta, First Nations patients utilized physician services for substance abuse concerns seven times more often than non- First Nations Albertans (Cardinal, Schopflocher, Svenson, Morrison & Laing, 2004). A Saskatchewan Health alcohol and drug centre client profile report stated that in 2000/01, of the 9,548 clients that accessed recovery services, 55% were Aboriginal. Only 9% of the population of Saskatchewan over the age of 15 years were identified as Aboriginal (Saskatchewan Health, 2002).

Overcrowding in First Nations homes predisposes individuals to the potential for violence (Saskatchewan Women's Secretariat, 1999). In the First Nations Centre (2005) survey of 238 First Nations communities in Canada, they found that there are an average of 4.2 persons living in each First Nations home on-reserve which is higher than the general Canadian census statistic of 2.6 persons living in a home. There is a lack of privacy and personal space for individuals. Homes are often noisy with individual verbal conversations

competing with the television, music and visitors. The lack of personal space may result in individual family members acting out using violent activities to gain attention (Canadian Criminal Justice Association, 2000).

Health Canada (2000) reported that hospitalizations for First Nations persons with injuries due to assaults were 8.5 times higher than general population in Canada. First Nations women in Saskatchewan are 24 times more likely to seek medical attention for intentional injury by others than the female population of that province (Saskatchewan Women's Secretariat, 1999). The First Nations Centre (2005) found that one in twenty adults reported they had been the victim of violence in the past 12 months.

Unemployment, poverty and substance abuse are factors which may lead to family conflict in First Nations communities (Indian and Northern Affairs Canada, 2004). Hyde and LaPrairie prepared a working paper for the Solicitor General of Canada in 1987 outlining the results of their investigation into Aboriginal crime trends. They found that 41.4% of First Nations crime involved violations towards family members and that the violence occurred most frequently in Aboriginal homes (The Aboriginal Justice Implementation Commission, 1999). The prevalence of mortality rates related to substance abuse in First Nations people is a distressing reality. The mortality rate in 1992, for alcohol related deaths in this population was approximately 44 deaths per 100,000 compared to 24 deaths per 100,000 for the general population. The mortality rate in 1992, related to illicit drugs in First Nations people was double that of the general population (Health Canada, 2005). The risk of violence to home care nurses is also increased by the fact that they often work alone, and may encounter unfriendly dogs, substance abuse, the presence of released violent

offenders, and conflicts in the home between residents due to volatile family dynamics (Green, 1998).

In addition to the potential for violence in the home care workplace, there are also professional and administrative issues that place the home care nurses at emotional risk. There has not been an easy integration of community health programs with the Home and Community Care Program. In most communities, the nurses have two separate employers, community health nurses employed by FNIHB, and home and community care nurses employed by a First Nations organization - either the Band or a Tribal Council. A tribal council is an association representing a group of First Nations bands which provide services to, or on behalf, of the First Nations bands (Edmundson & Loughran, 1989). This makes collaboration in the delivery of health care services a challenge, due to different program priorities, such as acute versus chronic diseases.

The nurse's risk for exposure to violence is increased for Band employed nurses as they may have a non-nurse supervisor, do not belong to a nursing union, and the employer may not appreciate or identify with the employment risks. The nurse may be related to the health authority supervisor and the employer may expect the work to be performed by the home care nurse, without regard for the personal safety of the nurse. The lack of a nursing perspective within supervision may mean that the employer does not have a clear understanding of the role that the home and community care nurse is fulfilling. If a critical incident does occur, the nurse should be supported by the employer. The employer should also encourage the nurse to discontinue care if the client or family member becomes verbally abusive.

In some of the communities, home care nurses have other nurse colleagues, as described above, working in nursing stations and health centres. Home care nurses, however, are independent practitioners which exposes them to stressful situations, as homes are entered alone and service is delivered in isolation from other health care providers. There is often geographical and personal isolation from the nurse's own family members, and professional isolation from physicians and nurse colleagues.

Another issue, is the lack of educational preparation of nurses for dealing with potential violence. Nurses working in First Nations communities may be Licenced Practical Nurses (LPNs), diploma prepared Registered Nurses (RNs), or Baccalaureate prepared nurses (BNs). In this area, Skillen, Olson, and Gilbert (2001) state that nursing courses are deficient in providing information about violence in the workplace. Their level of understanding, ability to recognize the potential for violence and coping mechanisms are based upon the curriculum to which they are exposed. The implications are that the nurses may not know how to recognize what a critical incident is, and may not have knowledge of effective coping mechanisms. This may predispose them to development of symptoms of PTSD.

Some of the nurses working in the Home and Community Care Program are Aboriginal, defined as First Nations, Metis or Inuit descent (Health Canada, 2003). This is seen as a positive recruitment and retention strategy as First Nations nurses are comfortable making their career choice in the North where many of them grew up. Many also speak the local dialect which, according to Hart-Wasekeesikow, (2001) assists them to advocate on behalf of their clients in a context that is familiar to them. Understanding the language is

also essential when working with the Elders, as English may be their second language.

First Nations nurses also know how to address their clients in a culturally appropriate manner by incorporating traditional healing and dietary habits into their plans of care (Green, 1998). Culture, according to Spack (2003), and Hay, Varga-Toth, and Hines (2006) is a determinant of health. Participation in prevention activities, lifestyle choices and understanding disease processes are all woven into a client's culture. Gregory (1988) states that First Nations nurses have an in-depth knowledge of the culture, understand the social structure, and are familiar with the isolated environment.

In the Home and Community Care and Community Health Programs, the employment of First Nations nurses is certainly a positive initiative, however, being aboriginal may increase a nurses' potential for exposure to violence when working in clients' homes. One can speculate that they may feel a false sense of security due to being related to the client or being familiar with the home environment. They may think that nothing will happen to them. These nurses may also perceive threats and acts of violence as normal due to their upbringing. There is a long standing history of violence in First Nations communities, especially towards female members. They may not report perceived or actual incidents as they may not recognize them for what they truly are, critical incidents. Further study in this area is needed.

The nurse employed in First Nations communities can become caught between being a nurse, a friend and a member of the community (Gregory, 1988; Shaw, 2006). Within these communities, nurses are highly visible and identifiable which leads to a decrease in the control that they have over their professional boundaries. A walk to the store can result in a

number of people asking health care information (their own or that of relatives and friends), often in front of others. Foster (2006) states that nurses must be visible to First Nations community members outside of the work environment. This assists in forming a trusting relationship when in the professional nursing role. Having access to patient confidential information can also place the nurse in a conflictual situation, as the nurse is privy to confidential medical information that others may pressure her to disclose (McIntyre & Thomlinson, 2003).

There are very high expectations from the community placed on the First Nations nurses. Family members expect evening and weekend visits, increased accessibility to the nurse, and special exceptions to be made for approvals for supplies that the family feels the patient needs, even if not ordered by the nurse. This places stress on the nurse, as the nurse attempts to overcome the excessive conflicting demands that may be made by her employer, the community and relatives (Tyler & Riggs, 2000) .

There are other cross-cultural considerations that contribute to the problem of violence and exposure to critical incidents. Among the individual nurses, the perception of reportable occurrences and the ability to cope with stress will be different. The nurses may not feel comfortable discussing incidents with each other, due to cultural differences, professional barriers, and the potential for lack of confidentiality due to the small number of nurses. This discussion with a colleague about a critical incident is a necessary first step for overcoming stress due to the professional isolation of the work environment (Tyler & Riggs, 2000).

McIntyre and Thomlinson (2003) state that home care nurses practice in isolation

from administrators and funding bodies. Access into the Home and Community Care Program is initiated with an assessment of the services available and the level of care required. Nurses' overwhelming caseloads may cause them to deny service to potential clients, which may lead to conflict with family members and the community as a whole, as they feel that this client requires the services. The nurses are the gatekeepers into and out of the program, which puts them in a precarious situation as they must be objective in the selection of their caseload clients.

A number of strategies have been developed to address the potential exposure to violence in the workplace. The Critical Incident Stress Management (CISM) Program is available to all nurses working in Alberta and Saskatchewan First Nations communities. Registered Nurses offer telephone consultation services, referrals to counsellors and on-site debriefings following exposure to a critical incident. The purpose of the program is to assist nurses to cope with the stress associated with the incident and to help them return to the pre-incident level of functioning. This program is operated under the auspices of the Employee Assistance Program (EAP) (Health Canada, 2004).

Second, FNIHB has created policies and procedures for home and community care nurses. The policy related to zero tolerance of violence in the workplace includes the responsibility of management, actions to minimize risk and the procedure for reporting a critical incident on an incident report form (FNIHB, 2006)(see Appendix A). The unusual occurrences and reporting policy (FNIHB, 2005) identifies the purpose of the form and states that all unusual occurrences are to be reported within 24 hours of the event. The policy form is used as a communication tool to notify program management about the

situation. The incidents related to violence towards nurses are to be faxed to the CISM team for follow-up with the nurses involved.

Health Canada has also developed guidelines on the prevention of violence in the workplace ( Health Canada, 2005; Health Canada, 2006). Alberta and Saskatchewan Regions instituted the employment of security guards in all nursing stations after hours, and on weekends when nursing stations are closed, except for emergencies. As well, all nurses in these two provinces (community health, home and community care and public health) are encouraged to participate in a mandatory session offered by FNIHB, Nursing Safety and Awareness Training. It is a two day course discussing workplace violence and preventative measures that are practical and effective.

Despite these initiatives, home and community care nurses may be inconsistent in reporting critical incidents (Sylvia Flint, personal communication, October 11, 2006). The lack in reporting of incidents by the home and community care nurses may be for a variety of reasons. They may not want to report incidents to the FNIHB as they are not the employer. Another reason that this group of nurses may not be reporting incidents is that the person involved, either as a victim or a perpetrator, may be a member of the nurses' family. Also, the incident reporting form may also not be readily available for them to complete. Finally, the home and community care nurses may not be familiar with the Critical Incident Stress Management (CISM) Program, so there may be a lack of knowledge of the services that are available to them.

Another element in the situation that contributes to the defined problem is the lack of adequate and culturally appropriate research in First Nations communities. In a workshop

report related to First Nations cancer research, general research gaps were identified during discussions. These included: the lack of longitudinal research due to small sample sizes, lack of data sharing methodologies that included ethical and cultural considerations, and lack of feedback to First Nations communities related to the research results (Cancer Care Ontario, 2004).

The First Nations Statistics position paper (2003) provides further insight into the lack of research with First Nations populations. Research related to First Nations has been historically conducted by and for the use of the federal government. This has resulted in information being gathered that may have little significance to First Nations (First Nations Statistics, 2003). They may not have been consulted about the research study and the study may not have been a priority for the community. Some First Nations communities have not permitted research to be conducted which results in an under representation of the First Nations population and a decrease in data reliability.

Community confidentiality has also not always been maintained by researchers (First Nations Statistics, 2003). In other words, the sample size has been too small and the community is identifiable in the discussion and results sections. Results from these studies have not always described First Nations people in a positive way, leading to community embarrassment with other First Nations communities. If it is not a true description of the community, the study may lack external validity, something which Aboriginal people have stated is a research concern for them (First Nations Statistics, 2003).

Aboriginal people have become reluctant to participate in research as they feel that they have been "researched to death" (First Nations Statistics, 2003). Other researcher

challenges that have been identified are the multi-jurisdictional nature (Health Canada, Provincial Health Organizations, Tribal and Regional Health Authorities) of health care services for First Nations, geographic and language barriers, and cultural issues (Cancer Care Ontario, 2004). The Health Information Research Committee (HIRC) at the Assembly of Manitoba Chiefs supports and monitors research with First Nations in Manitoba. It reviews research proposals and allows First Nations to participate in the decision of supporting, or not, research studies in the communities (Ten Fingers, 2005).

Smylie and Anderson (2006) discuss additional challenges in research with First Nations. Data coverage and quality are not always good due to the self-identification process of First Nations in Canada. The lack of health information systems which are culturally appropriate is also a challenge when conducting research with this population. This lack of research contributes to inadequate understanding related to the risk for exposure to violence for home care nurses working in First Nations communities. Understanding the risk may promote the development of preventative policies that reduce the risk of exposure to violence and the potential for the development of PTSD in home care nurses.

### **Statement of the problem**

Post-traumatic stress disorder (PTSD) is a psychological disorder that may occur following exposure to a critical incident. The individual experiences feelings of fear, helplessness and horror at the time of the incident. According to the Diagnostic and Statistical Model of Mental Disorders, DSM-IV, three persistent clusters of symptoms must be present for at least one month in order to be diagnosed with PTSD (APA, 1994). The

three symptom criteria are re-experiencing the incident, avoidance of the stimuli related to the incident, and increased arousal, such as irritability (APA, 1994).

Research over the past ten years has revealed a prevalence of PTSD in Manitoba nurses higher than that of Vietnam veterans (Corneil & Kirwan, 1994; Lavack-Pambrun, 2000; Powell, 1996). While previous studies (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996) have investigated PTSD in Medical Services Branch (MSB) nurses, (employed in nursing stations, hospitals, health centres, zone offices), Emergency Room (ER), Intensive Care Unit (ICU), and correctional nurses in Manitoba, none have examined PTSD in home and community care nurses working in First Nations communities.

Home and community care nurses in Alberta and Saskatchewan are working in First Nations communities where they may be at risk for exposure to violence in the form of critical incidents in the workplace. Nurses should be able to expect to work in a safe work environment. This unfortunately is not the case at present and there remains the concern that nurses will continue to be exposed to violent situations, be at risk for developing PTSD, and may be unable to cope with the stress that these situations present to them.

While home and community care nurses may be at risk for developing PTSD, there is a lack of research with this nursing group. Determination of the prevalence of PTSD may provide the opportunity for employers to institute safeguards to prevent exposure to critical incidents for these nurses. Understanding and clarifying the meaning of a critical incident may lead to further research which will hopefully assist nurses in implementing strategies to decrease violence in their work environments.

In summary, specific concerns about the problem were defined as (1) the nature of home care nurse work which potentially exposes them to violence, (2) the nurses' potential for developing PTSD, and (3) the lack of research in First Nations communities related to this issue.

### **Purpose of the Study**

The purpose of this quantitative study was to determine the prevalence of Post-Traumatic Stress Disorder among home and community care nurses working in Alberta and Saskatchewan First Nations communities. The investigation also determined these nurses' knowledge of what constitutes a critical incident and identification of a stressful situation they may have encountered in the workplace.

### **Significance of the Problem**

This thesis was a replication study which attempted to validate the findings from four Manitoba studies by Corneil and Kirwan (1994), Dobbyn (1994), Lavack-Pambrun (2000), and Powell (1996). Corneil and Kirwan (1994) studied MSB nurses and found a 33% prevalence rate for PTSD in their sample of 88 nurses. Dobbyn (1994) reported a prevalence rate of 34% for PTSD symptoms in 82 MSB nurses, with the omission of zone office nurses. Lavack-Pambrun (2000) investigated correctional nurses and found a PTSD prevalence rate of 37%. Powell's (1996) research of emergency and intensive care nurses found a 42% prevalence rate for PTSD. Home and community care nurses were an unexplored target group. The First Nations perspective offered by Aboriginal nurses has also not been investigated.

Western Management Consultants (1996) evaluated the effectiveness of the Critical

Incident Stress Management (CISM) Program in four regions of Canada. The cost of the program at that time was \$400,000 per year. They calculated the cost to Health Canada if the CISM Team were not available to nurses following a critical incident in a First Nations community to be a staggering figure of 2.8 million dollars annually. The psychological and emotional costs of the effects of PTSD on nurses is not discussed in the literature. Nurses may never be able to recover and resume nursing duties. Long term disability payments may be required for nurses diagnosed with PTSD.

This replication study may be important to the advancement of nursing science and may provide assistance in the development and use of evidence-based practice (Polit & Beck, 2004). Nurses in practice environments can use the knowledge generated by this research to (1) increase their understanding of their experiences with PTSD, (2) assist each other when stressful situations are encountered, and (3) promote policy development to recognize nurses affected by the disorder and address workplace safety issues. The results may also contribute to improved job satisfaction in the lives of the home and community care nurses.

This study is important because it provides information which has implications for nursing administration, policy development related to the reporting of critical incidents, and for personnel exposed to critical incidents. It also provides information for nursing educators related to the importance for inclusion of information related to critical incidents in curriculum of schools of nursing and in-service education for nurses. Caine and Ter-Bagdasarian (2003) suggest that education should focus on factors that prevent stress and promote coping for acute care nurses.

### **Research questions**

The following research questions guided this quantitative study:

- (1) What is the prevalence of Post-Traumatic Stress Disorder among Alberta and Saskatchewan home and community care nurses working in First Nations communities?
- (2) How do home and community care nurses in Alberta and Saskatchewan define a critical incident?
- (3) What is a stressful situation they have encountered in the workplace?

### **Definition of terms**

**Band Employee** - A nurse working directly for a First Nations band or Tribal Council which oversees a number of bands. Funding for the Home and Community Care Program is given to this employer through a First Nations and Inuit Health Branch (FNIHB) contribution agreement.

**Contribution Agreement** - ...“written agreements between FNIHB and the First Nations organization to administer and manage community health programs and services. Financial resources are released to the First Nations through advances and monthly payments and the submission of quarterly financial reports” (Health Canada, 2006).

**Coping** - a behavioral or psychological process for eliminating or dealing with the threat. It is a cognitive activity which involves appraisal of the stressor and consequences of the coping action choice (Lazarus, 1966).

Critical Incident - a traumatic event such as the death of a patient, or a personal, physical, or emotional assault which may negatively affect the person's ability to cope with the possible stress reaction. In this study this is measured by responses to research questions #2 and #3 (Mitchell & Bray, 1990).

Elder - a person who is approached for spiritual or cultural leadership by peers and who possesses traditional knowledge (Stiegelbauer, 1996).

First Nations and Inuit Health Branch (FNIHB) - A branch of Health Canada which develops and delivers programs to First Nations and Inuit people. The FNIHB assists people to promote health and prevent chronic and contagious diseases (Health Canada, 2006).

First Nations community/reserve - a tract of land owned by the federal government, set aside for the use and benefit of a First Nations Band (Indian and Northern Affairs Canada, 2005).

Home and Community Care Eligible Recipient - First Nations people of any age who live in a First Nations community and have met the assessment criteria of requiring one or more program services and access to service providers of the program (Health Canada, 2000).

Home Care - Services provided by professional or paraprofessional in clients' homes. The services delivered include nursing assessments, treatments and procedures, personal care, teaching self-care to clients and family members, and initiating referrals to other supportive agencies (Health Canada, 2000).

Medical Services Branch (MSB) - Previous name of First Nations and Inuit Health Branch of Health Canada.

Post-Traumatic Stress Disorder - A psychological disorder diagnosed as the end result of not being able to cope with critical incidents. The diagnosis is made on the basis that the characteristic symptoms of (1) persistent re-experiencing of the traumatic event occurs, (2) persistent avoidance of stimuli associated with the trauma and (3) increased arousal. These three symptoms must be all present for at least a month to make the diagnosis. (DSM-IV, APA, 1994). In this study, PTSD was measured by Burge's PTSD symptom scale (Burge, 1988)

Prevalence - the proportion of subjects in a sample population who have the disorder being investigated at a particular point in time, or over a short period of time (Bourke, Daly & McGilvray, 1985). In this study prevalence was measured by Impact of Events Scale and Brief Symptom Inventory responses and Burge's PTSD symptom scale.

Stress - a stimulus produces an imbalance in the person and results in a strain, or change in the person. Mechanisms to balance the system against the strain are deployed (Lazarus, 1966).

Tribal Council - a group of several First Nations bands that delivers common services to those bands. The councils are organized following geographic, political, cultural and language similarities (Indian and Northern Affairs Canada, 2005).

Workplace Violence - any perceived or actual threat (verbal, written, or physical), or aggressive act that causes, or may cause, injury or emotional trauma to a nurse in the workplace (Health Canada, 2004). In this study, workplace violence was measured by the nursing questionnaire responses to questions about exposure to verbal threats, attempts of physical harm, actual physical attacks, or required medical attention for physical injuries from attacks.

### **Conceptual framework**

Lazarus' theory of stress and coping (1966) was the conceptual framework utilized in this research investigation. The theory's key concepts will be discussed, followed by diagrams of the conceptual framework, and an example of the practical application of the theory to a nurse's exposure to a potential critical incident related to home and community care nursing in First Nations communities.

### **Theoretical Framework - Stress and Coping**

Lazarus' (1966) theory of stress and coping is a framework involving the key concepts of threat, primary and secondary appraisals of the stress, coping, and stress reactions. Lazarus' (1966) theory focuses on stress-related processes related to a) intervention with a threat, b) subsequent stress response, and c) factors that influence these processes. A threat can be thought of as an anticipation of harm to the individual. Threats arise from present cues that are cognitively processed for their future consequences (Lazarus, 1966). The stimulus acting on the individual is varied in both intensity and type (Lazarus, 1966). Once the threat has affected the individual, a process that Lazarus calls primary appraisal of the stressor occurs. The concept of primary appraisal, as defined by Lazarus (1966), is the cognitive process that intervenes between the threat and the stress reaction for the individual. Using this mechanism, the individual determines if the threat is harmful or motivating.

If the threat is judged to be significant, the resources of the individual and the environment are deployed to counter the threat. These resources include social support networks, confidence of the person to overcome the stress and what Lazarus calls the balance of power to deal with the stressor. Three characteristics of the individual influence the threat appraisal. They are motivation, belief systems, and intelligence (Lazarus, 1966). These personal characteristics will help to determine if the threat is harmful or beneficial. If the individual is successful in coping with the threat or it is not deemed to be harmful, the person returns to the pre-threat level of functioning.

Persistence of the threat requires the implementation of a secondary appraisal.

Primary and secondary appraisals can occur concurrently and determine the meaning of the stress for the individual (Riegel & Ehrenreich, 1989). Secondary appraisal is the cognitive evaluation used to identify various available options to cope with the situation. Secondary appraisal depends upon the primary appraisal. Part of the secondary appraisal also involves evaluation of the consequences of the action proposed by the individual to thwart the threat (Lazarus, 1966).

Coping as described by Lazarus (1966) in this theory provides a relational link between the threat and cognitive appraisal processes. Lazarus (1966) identifies two general classes of coping. The first are actions aimed at eliminating the threat and the second are defence mechanisms. Actions decided upon by individuals reduce the threat by directly influencing the conditions associated with the threat. Examples of these actions include removing, attacking, avoiding, or taking no action against the threat (Lazarus, 1966). Defence mechanisms are the strategies individuals use to deceive themselves about the actual threat. Examples of these are denial and rationalization. Individuals then cope with the situation and return to the pre-threat level of functioning, to await another threat. If this adaptation is not effective to counter the threat, then a stress reaction occurs.

There are several stress reactions that may occur. There are grouped into four categories (Lazarus, 1966). The first category is disturbed affect with symptoms such as anxiety, fear, and guilt. The second is motor-behavioral indicators such as body language and gestures. The third category is adaptive functioning. Symptoms in this category include speech and attention impairments. The final category is physiological changes. The

symptoms in this category include hypertension and increased hormone secretion. The prolonged affect of stress on the individual may lead to illness, such as PTSD, attributed to the initial threat, appraisals and the inability to cope (Hino, Takeuchi & Yamanouchi, 2002). Lazarus (1966) says that if the threat is observed in isolation of the process it produces, the understanding of the transactions that lead to the reactions will be missed.

In order to illustrate the relationships of the concepts presented in Lazarus's theory of stress and coping, a diagrammatic flow chart is included (Figure 1), followed by Diagrammatic presentation of a practical application of Lazarus' Theory of stress and coping to a nurses' exposure to a critical incident and the possible evolution to the development of illness (PTSD) (Figure 2).

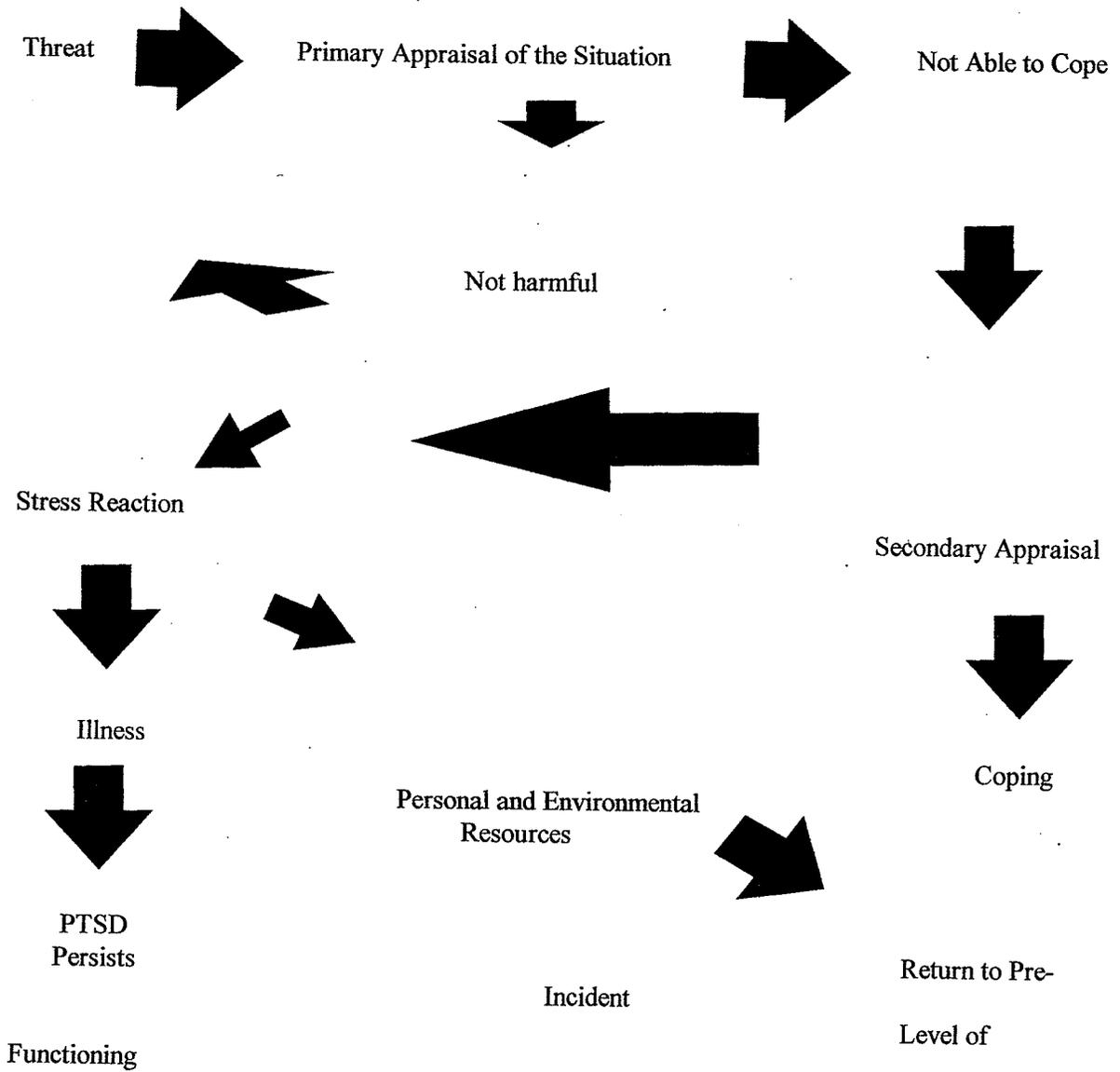


Figure 1. Diagrammatic presentation of Lazarus' theory of stress and coping concepts and the possible evolution to the development of illness (PTSD).

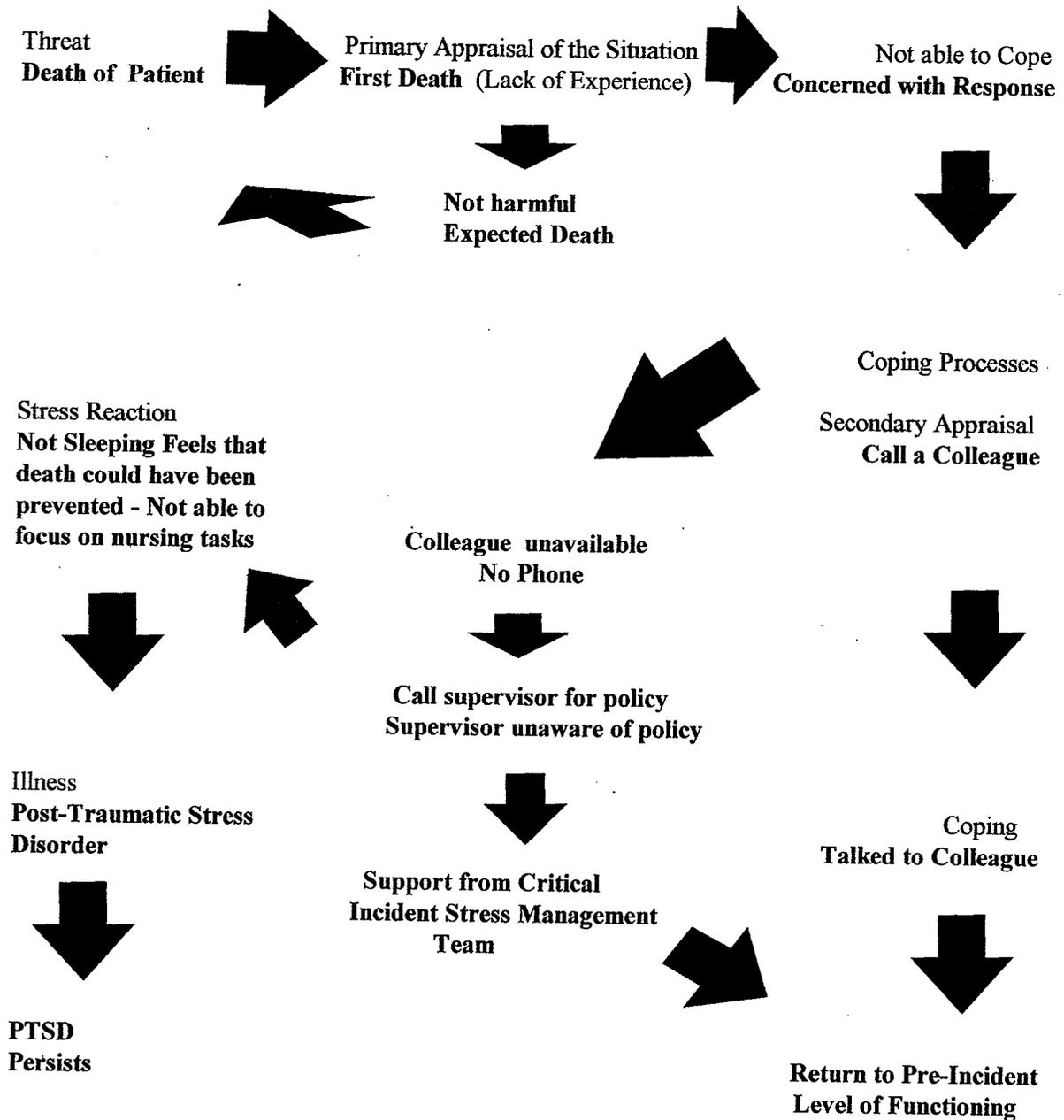


Figure 2. Diagrammatic presentation of a practical application of Lazarus' theory of stress and coping with a nurses' exposure to a critical incident and the possible evolution to the development of illness (PTSD). The home and community care nurse is highlighted in bold words in the flow chart.

For this example, the critical incident that the nurse has been exposed to in the home and community care role is the death of a client. As the nurse moves along the direction of the arrows, he or she will react to the situation, and the responses will determine the ability to cope using supports. If the supports are not available, or are inadequate, such as the supervisor not knowing the policy, a stress reaction will occur which may lead to PTSD. If the nurse is able to debrief with a colleague, then the nurse may be able to cope with the critical incident and return to the normal level of functioning. If professional interventions, such as CISM, are available, the nurse may also be able to cope and return to normal. If CISM is not available, the symptoms of PTSD may continue and the nurse may not be able to work.

Ritchie (1999) supports the use of this theory with nursing as nurses view the coping process in a similar fashion as Lazarus. Bailey and Clarke (1989) suggest that this theory is also applicable to nursing as they liken it to the nursing process steps of assessment, planning, implementation and re-evaluation. They also found that Lazarus' (1966) theory was more applicable to nursing research than other stress theories (Bailey & Clarke, 1989).

In summary, the conceptual framework focuses on the processes of stress and coping and is based on the concepts of threat, primary appraisal, secondary appraisal, coping, and stress reactions. The framework proposes that the inability to cope with a critical incident (threat) may result in the development of an illness (PTSD) in the individual.

**Conclusion**

This chapter outlined the background for the proposed study by stating the problems encountered by home and community care nurses working in First Nations communities in Alberta and Saskatchewan. The statement of the problem, purpose of the study, the definition of terms, the three research questions, and the conceptual framework are included. The next chapter is a review of the literature focusing on topics associated with the development of Post-Traumatic Stress Disorder.

## Chapter 2

### Literature Review

The review of the literature focused on topics associated with the development of PTSD, including workplace violence, critical incidents and PTSD. Publications encompassing the years 1966-2005 were located through the University of Manitoba libraries, Pub Med, professional association web sites, Blackwell Science Inc. and on-line e-journals. The review was limited to English language articles from Canada, Australia, Sweden and the United States. Previous theses investigations on the interest area were also included in the review and provided the foundation for this replication study.

### Workplace Violence

This section describes the issue of workplace violence experienced by nurses by defining the issue, presenting a global perspective and reviewing the context of the issue from social and financial impact viewpoints. The impact of violence on nurses, modes of resolution and the consequences of failure to not resolve the issue are presented. Workplace violence is further discussed by highlighting the recommendations and actions that can be instituted to decrease the risk of violence in the workplace.

### The Issue of Nursing Workplace Violence

The Health Canada (2006) guideline on the prevention of violence in the workplace defines workplace violence as any verbal, written or physical threat that may cause injury or emotional trauma to another person in the workplace. Violence has become so common in health care services workplaces, that many nurses think it is normal (Federwisch, 2001). Rippon (2000) suggests further investigation is necessary as there is little research focusing

on nursing work environments and the psychological impact of violence on nurses.

The main perpetrators of violence towards nurses in the workplace are patients, visitors, nurse colleagues, medical practitioners and allied health professionals (Federwisch, 2001). The results of a research study conducted in Nova Scotia indicated that 26% of the sample group of 452 nurses experienced verbal threats of physical harm towards themselves from patients. Family members, colleagues and medical practitioners were implicated in 4% of these incidents. The most prevalent forms of violence towards the nurses were verbal insults and threats of physical harm (Registered Nurses Association of Nova Scotia, 1996).

Powell (1996) investigated nurse abuse in the workplaces of Emergency and Intensive Care Units (ICU) in Manitoba. Of the 426 Registered Nurse respondents, 77% indicated that they had experienced verbal threats directed toward them by patients. Emergency room nurses comprised 38% of the sample, while 62% were ICU nurses. The majority of nurses, 55%, in this study, were employed at institutions that had 400 beds or more. As in the previous study, they also stated that, after patients, family members, physicians and co-workers, in this order, were also perpetrators of violence towards them.

Shields and Wilkins (2006) investigated 18,676 Canadian nurses in a national survey and found that 29% of the nurses had been physically assaulted by a patient in the past 12 months. In another study of 2648 Alberta and British Columbia hospital Registered Nurses, Hesketh et al. (2003) found that patients were the major cause of physical assaults. The nurses worked in medical-surgical, critical care, emergency, and psychiatry, as well as other wards. Hospital staff were primarily involved in non-physical violent acts of abuse towards nurses such as emotional abuse. The results of this study revealed that nurses are at risk for

violence in the workplace from virtually every person with whom they come into contact within the work environment.

Hesketh et al. (2003) also found that one in five nurses had experienced violence of more than one type. The results of this study suggest that nurses and their employers should take a closer look at the effect of emotional abuse on nurses by examining nurse-colleague and nurse-physician relationships and when developing prevention of violence policies. The results also indicated that the workplace that is tolerant of emotional abuse, paves the way for other types of violence to be considered acceptable. Hesketh et al. (2003) state that the focus should be on creating workplaces that are professional, courteous and civil, in order to decrease the potential risk for violent behavior from patients and others.

Hesketh et al. (2003) also found that there were less incidents of violence in critical care areas. In the medical-surgical clinical area, they found the highest incidence of physical assaults towards nurses. Henderson (2003) states that the threat of violence is evident even in unlikely clinical areas, such as nephrology. In other words, there is no nursing workplace that is immune to the potential risk for violence. Hegney, Plank and Parker (2003) say that due to the diversity in the types of workplace violence, it is difficult to compare sources of violence from one workplace to another.

Home visiting nursing increases the risk for violent occurrences. Nurses are exposed to environments in the patient's homes that are unfamiliar and unpredictable (Skillen, Olson & Gilbert, 2001). Family dynamics, the lack of a telephone and the use of alcohol and drugs in some homes, all increase the nurses' risk for violent encounters.

In a Midwest region of the United States, Fazzone, Barloon, McConnell, and Chitty

(2000) studied home care nurses related to personal safety issues. The 61 participants, 5 men and 56 women, identified unsafe conditions that they had experienced as home care nurses. They were administrators or direct care providers from 13 home health care agencies. They stated examples of feeling unsafe when there was aggression directed toward them by patients or family members. Unsafe conditions reported by these nurses included the lack of a telephone, poor lighting and hostile dogs.

Another risk factor noted by Jackson, Clare, and Mannix (2002) and Skillen, Olson and Gilbert (2001) was related to home and community care nurses' living conditions. When nurses live in employer provided accommodations, they are exposed to a greater risk of violent incidents. This increased risk may be partially due to extra key sets in the community, potential perpetrators knowing the weak links of the building such as poorly lit access points and the potential for gaining entry to the facility by posing as a patient.

In a 1992 study of 88 Manitoba MSB Registered Nurses, employed in nursing stations, hospitals, health centres and zone offices, it was found that 72% of the nurses had been threatened by patients and 51% reported actual physical attacks by patients (Corneil & Kirwan, 1994). Martin (1997) found that eight out of eleven Manitoba outpost nurses working in nursing stations expressed concern for their personal safety. They were fearful of patients with mental illnesses or violent tendencies, or those who utilized substances, such as drugs. These results demonstrate the high risk for violence directed towards outpost nurses. A former Manitoba outpost nurse discussed her personal experiences after being physically assaulted by a patient (Dietrich, 1995). She suffered from flashbacks, insomnia and an inability to concentrate. Fortunately, she was able to recover from the incident and

return to outpost nursing several years later.

Violence may play a role in the professions' ability to attract and retain nurses (Hesketh et al., 2003). Fear of physical assault has a negative effect on the retention of nurses (Claravall, 1996). Nurses are asking security and violence risk questions during the interview process with potential employers (Claravall, 1996). Applicants seeking employment in the northern nursing stations ask about the violence level in the First Nations communities as well as what security measures are provided by the employer to reduce violence. Some nurses do not want to work in environments such as home and community care in First Nations communities where they perceive the risk to themselves as being too great (Shaw, 2006).

### **Global Perspective**

Violence in nurses' workplaces is a global issue. This discussion will be limited to Australia (Crilly et al., 2004; Hegney et al, 2003; Jackson et al., 2002; O'Connell, Young, Brooks, Hutchings & Lofthouse, 2000), the United States (Carroll & Morin, 1998) and Sweden (Arnetz & Arnetz, 2000; Frans, Rimmo, Aberg & Fredrikson, 2005).

In Australia, O'Connell et al. (2000) found that 95% of a 209 nurse (93% female) sample group from a metropolitan teaching hospital were verbally abused. None of the nurses worked in the emergency or psychiatry units, where the majority of workplace violence towards nurses has been studied. The nurses worked in medical, surgical, gerontology and high dependency wards.

In another Australian study, (Hegney et al., 2003) of 1,436 nurses in Queensland working in private acute care, 56%, public acute care, 56% and aged care, 47%. Results

showed that 29-50% of nurses had experienced some form of violence in their workplace. Two South East Queensland, emergency departments were studied by Crilly et al. (2004). They found a 70% incidence of violence for the 108 Registered Nurses studied. They also stated that a review of Worker's Compensation Board (WCB) claim forms for nurses, showed a higher incidence of violence than police and prison officers.

In seven states (Alabama, Colorado, Delaware, Hawaii, Illinois, Kansas and Missouri) in the United States, 30% of the 586 nurses sampled, reported a violent incident within a one year period (Carroll & Morin, 1998). Most of the incidents involved patients as the perpetrators. Only 5% of the nurses were employed in the emergency department and only 50% of the nurses surveyed stated that they reported violent occurrences to the employer. If reported the actual number of incidents could be much higher. Thus, the full scope of the issue and the extent of violence in nurses' workplaces is not known due to the under reporting of incidents. Nurses are not always encouraged to report violence by management. They may be reluctant to report a colleague, as they may have to continue to work with this individual until a resolution can be reached. Under reporting will be discussed further in relation to exposure to critical incidents, in the next section.

In Sweden, Arnetz and Arnetz (2000), studied exposure to violence in 47 health care workplaces in Stockholm County. The sample group consisted of Registered Nurses, Licenced Practical Nurses (LPN) and LPNs with additional mental health training. Of the 1203 nurses who responded, 83% reported exposure to violence in the workplace. This research study led to more nurses reporting incidents of violence to management for intervention.

Federwisch (2001) states that nurses make exceptions for human behaviour that would not be tolerated in other workplaces. The deinstitutionalizing of clients with mental illness has led to more contact by nurses with this potentially violent patient population. Nurses are trying to promote health and wellness in hazardous workplaces (Skillen, Olson & Gilbert, 2001). The idea that patients will not harm nurses because they are trying to offer professional assistance is an ideology that is unrealistic in today's nursing work environment (Priest, 2006).

The close contact between nurses, their clients, family members and colleagues is necessary for nursing interventions. This physical closeness increases the risk of violence (International Council of Nurses, 2000). The condition of the profession of nursing has also led to the increase of violence towards nurses. Nurses feel disempowered, unsupported, invisible and devalued in the present health care system (Henderson, 2003). These feelings may have led nurses to feel disheartened about their career choice and that they can expect to be abused and threatened by their patients and the public (Henderson, 2003).

### **Impact of Violence on Nursing**

Violence in nurses' workplaces has been established as an issue because of the impact that it has on nurses, colleagues, their family members and employers (Atawneh, Zahid, Al-Sahlawi, Shahid, & Al-Farrak, 2003). Incidents of violence lead nurses to require sick time or a job re-assignment as a means of trying to cope. Some nurses have chosen to leave the profession altogether. Nurses are striving for quality in work life and trying to balance priorities of work and family. When incidents of violence occur in the workplace,

there is an effect on their family members also (Atawneh, Zahid, Al-Sahlawi, Shahid, & Al-Farrah, 2003).

The International Council of Nurses (ICN) (2000), in their position statement, "Abuse and Violence against Nursing Personnel," state that the delivery of quality care is threatened by workplace violence. In their Canadian study of hospitals in Alberta and British Columbia, Hesketh et al. (2003) linked both decreased job satisfaction and job performance in nursing to workplace violence. Staff turnover and decreased job satisfaction lead to further recruitment and retention difficulties for the employer. If nurses are not satisfied with their ability to provide quality care, they will leave, creating vacancies. When the risk to personal safety in a particular clinical setting is perceived as being too high for nurses, they will seek employment in a setting which they feel may have a lower potential for violence.

### **Support for Nurses Related to Workplace Violence**

The ICN (2000) position statement document, as cited above, supports the development of workplace policies to guide nurses when violence occurs. Hesketh et al. (2003) mention the Canadian Nurses Association (CNA) policy statement titled "Violence in the Workplace", updated in 2005, which supports a zero tolerance position of violence towards nurses (CNA, 2005). Their article also indicates that provincial nursing associations (College of Nurses of Ontario, 1999; Registered Nurses Association of Nova Scotia, 1996) and nursing unions (Canadian Federation of Nurses Unions, 1994) have developed resources to help to reduce the impact of violence.

The Australian Nursing Federation (Jackson et al., 2002) is advocating that action

plans be developed and that discussion occur related to the exceptionally high levels of violence in remote nursing environments. The American Nurses Association created a pamphlet titled "Preventing Workplace Violence". It discusses the problem, suggestions for action, prevention plans and risk factors (ANA, 2002).

The College of Nurses of Ontario (1999) created a practical guide called "Abuse of Nurses". It offers prevention strategies and discusses risk factors and post-violence action plans for nurses. A resource guide about workplace violence was developed by the Registered Nurses Association of Nova Scotia (1996). It contains violent incident statistics, contributing factors, impact statements and violence reduction strategies.

Ross (2002) prepared a report for Health Canada, titled "Nursing Education and Violence Prevention and Intervention", to assist nursing educators in the preparation of students related to violence prevention, detection and intervention. Professional organizations, unions and educational institutions can advocate for resources to support nurses who have been victims of violence. They can also offer funding for research initiatives to further the understanding of the impact of violence on nurses (Jackson et al., 2002).

These nursing publications highlight the issue of violence in nurses' workplaces by acknowledging the issue as a reality for nurses. They give a voice to nurses to encourage health care administrators to take the issue seriously and to promote safe work environments. These organizations have high profiles in Canadian nursing which brings the issue to nurses, administrators and government officials through publication distribution routes.

One way to resolve workplace violence is through the development and integration of a zero tolerance of violence policy. This is an indication to nurses and the public that the employer will not tolerate occurrences of violence in the workplace (Henderson, 2003). Nurses should be encouraged to report all incidents of workplace violence. This can be accomplished by in-services on reporting and through mandatory education sessions to learn about how to deal with potentially violent situations for all staff members, including managers (Jackson et al., 2002). The incident reports can be utilized for further research, to develop accurate statistical reports and to ensure that victims are referred to the available support services.

The results of a study of 56 Alberta public health nurses (Skillen, Olson & Gilbert, 2001), aged 26-61, employed in five public health units throughout the province, suggested that nurses, employers and government organizations should work together to acknowledge and reduce the hazards in the nurses' workplace. Teamwork is a necessity when creating and maintaining work environments to reduce the vulnerability of nurses to violence. Other suggestions for resolving workplace violence are through Employee Assistance Programs, counselling sessions and debriefings. These have been found to be effective modes for resolving the impact of violence on nurses (Federwisch, 2001).

When nurses have been victims of violence in the workplace and the issue has not been resolved, physical symptoms may present themselves. Nurses respond with anger, fear, insomnia and flashbacks. They may develop post-traumatic stress disorder by re-experiencing the trauma, developing physical symptoms and avoiding the situation or workplace (Atawneh et al., 2003).

There may be an increase in staff turnover, job dissatisfaction and recruitment problems related to violence in the workplace. Sick time usage may rise and patient care quality will be affected. Nurses may lose their self-esteem and question their professional competency (ICN, 2000). The impact may be devastating and affect health care service delivery now and into the future. It may become even more difficult to recruit people into the profession of nursing if it is seen to be a career choice that is likely to result in physical or emotional injury. Employers should ensure the well being of their nursing staff so that when nurses are speaking with potential recruits, the message is positive and encouraging. Conversations indicating the potential for violence, high level of job dissatisfaction and horror stories of violent incidents, will deter potential students from ever entering the profession.

### **Actions Taken to Reduce Workplace Violence**

Zero tolerance policies have been implemented by some employers to deal with violence in the workplace (Hegney et al., 2003). Health Canada (2005) developed the FNIHB health facilities safety and security policy. The objective of the policy is to ensure and promote a safe workplace for nurses and other staff members in FNIHB funded facilities. Health Canada (2006) developed its guideline to prevent violence in the workplace with a zero tolerance objective which was implemented in April 2006. It provides a framework for dealing with violence and the role of various key supports, such as the human resources department.

The creation of the National Critical Incident Stress Management Team, based in Manitoba, has led to support for nurses exposed to violence. These Registered Nurses are

available on a 24 hour basis and can refer nurses to appropriate counselling services or debriefings. Claravall (1996) suggests collaboration between nurses and community law enforcement is required when confronting issues related to violence. Nurses and Royal Canadian Mounted Police (RCMP) officers work closely in isolated First Nations communities and their offices and homes are usually located in close proximity to each other. In communities without an RCMP presence, local Band constables offer support to nurses exposed to violence.

Nurses working in Alberta and Saskatchewan First Nations communities are encouraged to report all incidents of violence directed toward them. The unusual occurrence incident report form has a check off line for violence and a narrative description section. These incidents are going to be recorded and tracked on regional and national databases. Knowledge of trends of workplace violence assists nurse managers with identifying health care delivery issues and developing strategies to promote safer workplaces (Crilly et al., 2004).

### **Recommendations to Decrease Workplace Violence**

Recommendations from the literature review focus on the areas of nursing administration (Claravall, 1996; Fazzone et al., 2000), education (Carroll & Morin, 1998; Henderson, 2003; O'Connell et al., 2000; Skillen et al., 2001), and research (Crilly et al., 2004; Hesketh et al., 2003; Jackson et al., 2002). For nursing administrators, adequate levels of staffing should be ensured through recruitment and retention strategies. Security guards have to be visible in the workplace. Nurses also wanted more policies to be developed to enhance their safety and restrict the flow of visitors. In the area of education,

continuing education programs should be developed around topics such as aggression management, threat and risk awareness and peer support. Nursing school curriculums should also include violence in the workplace as a topic for discussion.

The review of the literature related to workplace violence indicated that further research in the area of workplace violence for nurses is essential. Studies should focus on the effectiveness of workplace zero tolerance policies, implementing incident reporting guidelines and educational sessions aimed at prevention and harm reduction. Researchers should continue to emphasize the affect of the issue in workplaces outside of the emergency department, such as with home and community care nurses, the sample group for this research study.

### **Summary**

The issue was defined, a global perspective was presented and the social and financial contexts were reviewed. The impact of violence on nurses and suggestions to resolve the issue were included. The positive actions of some professional associations and employers demonstrates a dedication to the reduction of the risk to violent incidents. Throughout the section, collaboration and support among nurses to reduce the potential for violence, is a key message.

### **Definition of Critical Incidents**

Some of the violent occurrences in nurses' workplaces can be defined as critical incidents. In this section, critical incidents will be defined. A review of the literature will be presented from disciplines external to nursing, (Mitchell, n.d.; Mitchell & Everly, 1993;

Wong, Reid, & Nicholson, 1999) that have formed the basis for critical incident research. The implications of critical incidents experienced by nurses will be discussed. Modes of resolution and the impact of not resolving critical incidents are identified. Recommendations for successfully resolving critical incidents are also presented.

A critical incident is a component of Post-Traumatic Stress Disorder (PTSD) which is the topic for this study. Following exposure to a critical incident, the individual either adapts to the stress or may develop symptoms which may be diagnosed as PTSD, which will be discussed in the next section.

The Concise Oxford dictionary (1990) defines critical as "of or at a crisis" (p. 275) and incident as "an event or occurrence" (p. 597). Using these definitions, a critical incident is a crisis event or occurrence. The American Psychological Association defines a critical incident as an extreme traumatic stressor that includes actual, threatened or witnessed death which may be unexpected, violent physical assault, disasters, or contracting a fatal disease (APA, 1994).

A critical incident has been defined as an event that has sufficient emotional impact to overpower the usual coping abilities of individuals whom are exposed to it (Mitchell & Bray, 1990). The response of the individual may include fear, a sense of helplessness and even horror (Lavack-Pambrun, 2000). Critical incidents are specific, often unexpected, time limited events that may involve loss or threat to personal goals and a turning point in the individual's life (Everly, Flannery, & Mitchell, 2000). In an article for advanced practice nurses, researchers suggest that a critical incident has four components: the event, the nurses's reaction to the event, the performance of the nurse at work, and the nurse's own

meaning of the event (Caine & Ter-Bagdasarian, 2003).

A critical incident has several associated expressions utilized across many disciplines. In their research and studies, Mitchell and Everly (1993), who have extensively studied critical incidents, use the term "crisis event" when discussing their research with emergency medical service personnel and disaster workers. They also state that the desire to return military personnel back to the front lines promoted the identification of critical incidents and their effect on soldiers (Mitchell & Everly, 1993). Mitchell (n.d.) cites additional stressors as being grave situations involving children and serious diseases developed by health professionals in the line of duty.

Corrections Canada uses critical incidents to describe almost the same events. They also include the person's ability to cope with the consequences as being an important component. Examples of critical incidents in the penal system include: death of a co-worker or inmate; hostage taking; physical violence from an inmate; or an incident receiving extensive media coverage (Wong et al., 1999). Nurses working in the Canadian Prairie Region for Correctional Services were studied by Lavack-Pambrun (2000). Critical incidents were identified by this nursing group as verbal abuse by inmates, emotional threats and perceived physical threats.

Emergency room (ER) personnel are at a great risk for exposure to critical incidents. A critical incident is any situation that causes ER staff to have unusually strong reactions which may interfere with coping ability. Critical incidents defined by ER staff, nurses and disaster workers were found to be the same and include assault, death of a co-worker, homicide and disasters (Pulley, 2001).

### **Implications for Nursing**

An Australian hospital study of 227 full-time, Registered Nurses working in a 750 bed Melbourne hospital found that the most frequently experienced and stressful critical event was a respiratory or cardiac arrest (O'Connor & Jeavons, 2003). The nurses were employed in all units in the hospital and were 86% female, with their mean age being 33 years.

Nursing has been researched related to critical incidents in a variety of occupational environments in Canada (Appleton, 1994; Corneil & Kirwan, 1994; Dobbyn, 1994; Powell, 1996; Skillen et al., 2001). Public health nurses in Alberta were found to be at risk of exposure to critical incidents in the workplace. The home visit role presented a work environment that was unpredictable for nurses (Skillen et al., 2001). Appleton (1994) conducted a research study of 50 medical-surgical nurses working in three hospitals in the lower mainland area of British Columbia. The nurses in this sample were predominately female, and ranged in age from 20-58 years. They all had at least one year of nursing experience. The purpose of the study was to investigate what nurses define as a critical incident. The most common definition was moral distress. Appleton also reported that the study revealed that the majority of critical incidents occurred on evening and night shifts (Appleton, 1994). This may be linked to the decrease of staff members on these shifts that would be available to provide collegial support following an incident.

Previous Manitoba theses investigations have focused on Northern outpost, hospital, health centre and zone office nurses, and ER/ICU nurses and their exposure to critical incidents. Corneil and Kirwan (1994) used the term traumatic stress to define critical

incidents as verbal threats, perceived or real physical harm to nurses in Manitoba outposts, hospitals, health centres, and zone offices. Corneil and Kirwan found that nurses in these workplaces were more likely to be exposed to critical incidents than nurses in other work environments. Hospital, health centre, and outpost Manitoba nurses were further researched by Dobbyn (1994), using secondary data analysis of the Corneil and Kirwan (1994) study. Dobbyn (1994) defined critical incidents as crisis situations that cause nurses to respond with immediate, physical, mental or social coping mechanisms. Powell (1996) studied ER and ICU nurses in Manitoba. She defined a critical incident according the DSM-IV criteria (APA, 1994) described earlier in this paper.

There were similarities for the definition of critical incidents between Australian and North American nurses (O'Connor & Jeavons, 2003). Critical incidents in these two groups of nurses included sexual abuse, death of a child, death of a co-worker, cardiac arrest and assault.

According to the literature critical incidents were considered to be reportable events. The personnel that received the report were different, due to the diversity of workplace environments and employers, however, they had all received specialized training in critical incident management. The results of one study showed that the reporting of incidents is not always confidential, which could deter nurses from reporting the incident (Meurier, 2000). One article studying critical care settings encouraged accurate reporting of critical incidents as they may be the basis for legal action against the individual or institution (Carelock & Innerarity, 2001). Rippon (2000) states that under-reporting of incidents can be attributed to an ineffective reporting mechanism. He suggests that incidents should be standardized,

with clear definitions, to plan intervention strategies.

### **Modes of Resolution**

An emerging trend that has affected the critical incident research is the development and recognition of CISM Programs using intervention teams. The purpose of these programs is to provide a comprehensive approach to crisis intervention within an organization. One service that should be included is intervention sessions. Personnel receive training on the principles of the process of debriefing as one aspect of the intervention. The sessions may be one to three hours in length and are usually held within 48 hours to one week subsequent to the incident (Everly et al., 1999). Mitchell (1988) says that the purpose of the interventions is to provide immediate assistance to affected workers. These interventions assist in eliminating or decreasing delayed stress reactions (Corneil, 1991).

Since 1991, Health Canada has offered a Critical Incident Stress Management Program gratuitously to nurses. It began as a pilot project in Manitoba and was expanded to include the rest of Canada in 1993 (Corneil & Kirwan, 1997). It is a confidential, 24 hour telephone consultation service staffed by Registered Nurses trained in CISM. The purpose of the program is to assist nurses to cope with stress symptoms, to minimize the impact of the incident on the nurses and to provide referral services for those nurses that require additional counselling services (Mitchell & Everly, 1997).

Exposure to critical incidents in the workplace is unfortunately here to stay. With increasing shortages of staff across almost all disciplines, personnel are working more independently now than ever before. Funding implications affecting many professions have resulted in the removal of security personnel in the institutions and in the work environment.

The acuity of patients accessing medical services has increased, making medical and nursing personnel stretch themselves to their limits, both personally and professionally. This places them in an already compromised position which will affect their ability to react positively to a critical incident. Martin (1997) discussed Kirwan's 1994 study of critical incidents among Manitoba Registered Nurses, working in nursing stations, management, occupational health and as consultants. From the 74 critical incidents reported, the consequences of the exposure to the events included 18 nurses resigning, 38 nurses transferring to another work environment and several taking leaves of absence.

### **Recommendations for the Successful Resolution of Critical Incidents**

Recommendations from the literature review (Caine & Ter-Bagdasarian, 2003; Corneil & Kirwan, 1994; Dobbyn, 1994, O' Connor & Jeavons, 2003; Powell, 1996; Ryan & Poster, 1991) focus on the areas of nursing administration, practice, education and research. Nursing administration should support the critical incident stress management program in the workplace. If this service is not present in their setting, they should advocate for the development of one. They should ensure that there are policies related to the reporting of critical incidents, supporting personnel exposed to critical incidents and, encouraging the adherence to these policies by the nurses.

Practice environments would benefit from the introduction of the clinical nurse specialist role in mental health. According to Ryan and Poster (1991), these nurses understand workplace stress and possess the necessary skills to offer support to their colleagues. In 2005, First Nations and Inuit Health Branch employed a clinical nurse specialist in mental health. It will be interesting to observe if there will be integration of this

individual into the CISM Program in a supportive capacity.

In the area of education, the inclusion of critical incidents in curriculum of schools of nursing and in-service education for nurses is required. Caine and Ter-Bagdasarian (2003) suggest that education should focus on factors that prevent stress and promote coping in acute care nurses.

There is a requirement for research in the area of critical incidents as the concept is not clearly defined in the literature. In the review of the literature, there was not a clear definition of a critical incident related to all work environments for nurses. There is also a need to study the meaning of a critical incident across cultures in nursing. This study focused on First Nations nurses, as a majority, in the sample group. Further research would expand the knowledge base around the complexities of critical incidents. Larger participant research studies would produce additional useful data to increase the safety level in many work environments, by further defining what is a critical incident.

### **Summary**

The concept of a critical incident was defined. A review of the literature was presented from disciplines external to nursing where previous work has formed the basis for critical incident research. The impact of critical incidents on nurses in a variety of workplace environments was discussed. Modes of resolution and the impact of not resolving critical incidents for nurses were suggested. Recommendations for successfully resolving critical incidents were also presented.

### **Post-Traumatic Stress Disorder**

This section will discuss Post-Traumatic Stress Disorder (PTSD) which is a central focus of this study. Four studies have been conducted investigating the prevalence of PTSD among groups of Manitoba nurses. These are relevant to the present study and will be discussed in detail. The issue will be defined and the impact on nursing will be discussed. Supportive documents developed for use by nurses related to PTSD are described. The impact on nursing if PTSD is not resolved, and actions that have been instituted to decrease the prevalence rate and recommendations for further initiatives are also presented.

#### **Issue of Post-Traumatic Stress Disorder**

Post-traumatic stress disorder is a psychological disorder, defined as the end result of not being able to cope with a critical incident (Mitchell, 1983). The development of PTSD depends upon the individual's reaction to a traumatic stressor. At the time of the critical incident, the responses to the stress form a basis for PTSD, as the situation is outside the realm of ordinary experiences.

The diagnosis is made using the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), (APA, 1994). The characteristic symptoms are (1) persistent re-experiencing of the traumatic event, (2) persistent avoidance of stimuli associated with the trauma and (3) persistent increased arousal. All three symptom criteria areas must be present for more than one month to fulfill diagnostic criteria. The symptoms must create distress or interfere with the person's ability to work, interact socially, or impair their level of functioning (APA, 1994).

Re-experiencing of the event symptoms include flashbacks, distressing recollections and distressing dreams. At least one of the symptoms listed in this criteria must be present.

Three or more avoidance symptoms have to be present for a PTSD diagnosis. These symptoms are avoidance of conversations related to the incident, decreased interest in usual activities and a lack of a sense of the future. Two symptoms related to hyper arousal are required for the diagnosis. Examples of these symptoms include difficulty sleeping or staying asleep, irritability and difficulty concentrating (APA, 1994).

Treatment plans for patients with PTSD may be complex, even for trained professionals. Patients will present with a variety of physical symptoms. They will also require assistance with investigating appropriate coping mechanisms for their personal life situations. There is no cure for PTSD, but several counselling sessions with trained debriefing professionals has shown some success. Pharmacotherapeutics have also been researched and Selective Serotonin Reuptake Inhibitors (SSRIs) are the current medications of choice. They have been proven to reduce all of the symptoms identified in the DSM-IV diagnostic criteria (Foa, Keane & Friedman, 2000).

### **Impact of PTSD**

Research about PTSD has primarily focussed on Vietnam veterans and police officers. Yehuda and McFarlane (1995) reviewed prevalence studies of PTSD in Vietnam Veterans and found that the results showed a 15% prevalence rate. Soldiers that had returned from the Gulf War had a prevalence rate of only 9%, six months after the war.

These rates are included to enable the reader to compare these findings with the prevalence rates found in Alberta and Saskatchewan nurses.

Of note, it is estimated in community based studies that there is a 1-14% prevalence rate of PTSD in the general population (APA, 1994). In Sweden, a study examined the prevalence of PTSD in the general population (Frans et al., 2005). The prevalence rate for the 1824 subjects, aged 18-70 was 5.6% which is within the range as described previously. Women are more at risk of developing PTSD according to previous research studies (Brewin, Andrews & Valentine, 2000; Ozer, Best, Lipsey & Weiss, 2003; Rosenman, 2002; and Voges & Romney, 2003). Ozer, Best, Lipsey and Weiss (2003) state that the lifetime prevalence rate for women is double that of men. Rosenman (2002) found that in a sample population of 10,641 adult Australians, 1.6% of the female subjects were diagnosed with PTSD, whereas only 1.3% of the male subjects had the same diagnosis.

PTSD was investigated in American Indians by Beals, et al. (2005), and Gnanadesikan, Novins and Beals (2005). Out of 349 American Indians aged 15-24 years, 42 (12%) were found to have PTSD. All participants in this study had experienced a traumatic event. Females had a higher prevalence rate of PTSD at 17% as compared with males subjects at 6% in this study. The lifetime prevalence rate of PTSD in 3084 American Indians aged 15-54 years indicated that the female rates were almost double that of the male subjects (Beals et al., 2005).

Four research studies, (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996) have been conducted and revealed a significant prevalence of PTSD in nurses. Corneil and Kirwan (1994) found that 33% of MSB nurses working in First

Nations communities in Manitoba had experienced PTSD, and claimed that the prevalence rate among these nurses is twice that of the Vietnam veterans.

Dobbyn (1994) found a prevalence of 34% of PTSD for 82 Registered Nurses employed in MSB hospitals, health centres and outpost settings in a central Canadian region, when she examined the relationship between social support and PTSD. The sample group consisted of 46 outpost, 13 MSB hospital and 23 health centre nurses which she accessed via a data tape of the original study by Corneil and Kirwan (1994).

Powell (1996) studied Manitoba Emergency and ICU nurses and discovered that 42% of the 426 participants had symptoms of PTSD. The response rate was 37% of the nurses eligible to be sampled. Lavack-Pambrun (2000) found a prevalence of 37% for traumatic stress reactions, among Canadian federal correctional nurses, in a sample of 77 Registered Nurses and Registered Psychiatric Nurses. These nurse were working in the 13 federal institutions in the prairie region of Manitoba, Saskatchewan and Alberta. The study found that these nurses were exposed to a higher number of emotional, rather than physical threats. However, Polit and Beck (2004) state that smaller samples may produce estimates that may not be accurate, resulting in misleading results.

Home care nurses are at risk for developing PTSD as described by Marino (1998). Marino (1998) states that the independent work environment provides less support when a patient passes away, which is a critical incident. Professional support services may not be readily available due to work isolation. This is supported by the work of Williams (1995), who conducted a survey of violence in the workplace and found that nurses working in community home health had a higher rate of sexual harassment than the other nursing

practice areas researched.

Professional provincial nursing associations in Canada have identified that nurses are at risk for developing PTSD. The Colleges of Nurses of Ontario, Manitoba and the RN Association of Nova Scotia are examples of nursing organizations that have written resources to assist nurses with traumatic incidents in the workplace. The ICN, a global federation of national nursing associations, produced a position statement related to abuse and violence towards nurses. They say that counselling services should be available to nurses following exposure to critical incidents. The statement also lists the symptoms of PTSD as consequences of nurse abuse (International Council of Nurses, 2000).

Some workplace accommodation policies support nurses and their employers in seeking out opportunities for modified work duties, or alternate workplace locations when the nurse is unable to return to the work site where the critical incident occurred. Occupational health physicians work with other medical practitioners to offer guidance to the nurse, employer and union representatives related to workplace accommodation needs.

If the nurse exposed to critical incidents develops PTSD and the nurse is not able to make a full recovery, the impact is devastating for both the nurse and the employer. PTSD can affect a person's ability to function in activities of daily life at home and at work (Rogers & Liness, 2000). The nurse will exhibit the characteristic symptoms of re-experiencing the trauma, avoidance of stimuli associated with the trauma, and increased arousal which may lead to a breakdown in social relationships with family and friends (Rogers & Liness, 2000). The nurse will also experience physical manifestations related to lack of sleep and arousal symptoms. The nurses' quality of personal and professional life

may deteriorate. There will be an increase of sick time usage and the nurse may not be able to return to the workplace where PTSD developed. This leads to recruitment and retention concerns in a national nursing shortage situation

If left untreated, the symptoms may last for many years, impairing health and creating poor interpersonal relationships over the long- term. Many people affected by chronic PTSD turn to substance usage, such as alcohol, to help deal with the symptoms. They may also isolate themselves with no support group to assist them.

### **Prevention of PTSD**

The Treasury Board of Canada Secretariat (2005) and the Professional Institute of the Public Service of Canada created a letter of understanding for the collective agreement, governing FNIHB expanded role primary care nurses. This was an amendment to the 2001 memorandum of understanding related to Critical Incident Stress leave of up to three months for nurses. The nurse does not have to use sick time to be away from work after being involved in a critical incident. Debriefing sessions from qualified individuals have been shown to reduce the impact of the stress and may prevent the individual from developing PTSD (Mitchell, 1988).

The CISM Program as described in the second section of this paper is available to all (community health, home and community care and, agency) nurses working in First Nations communities in Canada. This program is important for nurses with PTSD as the timing of the professional support which the individual receives may be the most significant in a

successful recovery (Caine & Ter-Bagdasarian, 2003; Foa et al., 2000; Mitchell, 1988; Mitchell & Everly, 1993; Wong et al., 1999). Some of the nurses also have access to the Employee Assistance Program (EAP) which provides counselling services to employees.

FNIHB has also developed a national safety and awareness educational program which is mandatory for all FNIHB and Band employed nurses. They have also made a commitment to never having a nurse working alone in a nursing station. The nursing station is closed and the nurse is temporarily moved to another location until additional nursing staff can be placed in the unit. These actions offer preventative measures, as well as support to the nurses who may be at risk for developing PTSD.

### **Recommendations to reduce PTSD**

The literature (Dobbyn, 1994; Everly et al., 2000; Lavack-Pambrun, 2000; Martin, 1997; Powell, 1996; Richardson, 2001;) suggests that PTSD in nursing can be reduced through nursing administrative, practice, education and research initiatives. Nursing administrators should recognize that traumatic stress is a serious situation for both organizations and individuals. Policies and practices to respond to nurses at risk for developing the disorder are required (Richardson, 2001). Policies should also be in place to address workplace safety issues. The procedure for diagnosing the disorder should also be created.

In the practice setting, nurses should assist each other when stressful situations are encountered to decrease the likelihood that PTSD will develop. Educational institutions should include information about PTSD in the educational curriculum of schools of nursing.

Research studies should be conducted with nurses to increase their understanding of their experiences with PTSD. Numerous studies reviewed by Everly et al. (2000) showed that group debriefings were not effective in preventing the development of PTSD. They attributed some of the negative findings to research-subjects who may have been exposed to subsequent critical incidents following the initial event, and flaws in methodology and data analysis. Further research into the effectiveness of debriefings is needed.

### **Financial Impact**

It is estimated that each incident of violence in the nurses' workplace costs \$250,000 US (Elliott, 1999). This is a staggering amount of money for situations that may be preventable through education and management support. Safe and secure work environments for nurses increases expenses for the employers. Security measures are expensive, but are far less than the lost work hours and nursing staff turnover costs (Jackson et al., 2002). When designing or renovating nursing workplaces, designs to help decrease the risk of violence should be incorporated. Proper lighting in parking areas, entrances and hallways can be an important addition when trying to deter violence in medical facilities.

Claravall (1996) suggests that the issue of violence may also include costs related to police investigation time, as well as the time required to complete and process WCB forms. Court costs for victims and accused employee perpetrators may also be considered in the equation. In a time of health care budgetary restraints, spending budgetary allocations on violent occurrences translates to less money being available to provide quality care to

clients. Upgrades to medical technology needed for the workplace may not be approved due to a lack of financial resources (Claravall, 1996).

Appleton (1994) states that employers will have to invest in the short term expense of developing and implementing a CISM Program. These costs would be recovered in the forms of retention of nurses and less sick time following exposure to a critical incident. Firth (1994) says that the employer will experience further financial burdens, related to an increase of Worker's Compensation Board claims by nurses, who have experienced a critical incident. Caine and Ter-Bagdasarian (2003) suggest that workplace stress and critical incidents will incur a worldwide cost to employers of \$150 billion over the next 20 years.

Home and community care nurses working in First Nations communities have not been investigated for the prevalence of PTSD. A replication study of the above cited theses investigations using a sample of home and community care nurses is what was utilized for this thesis. This will assist in expanding research with First Nations populations and Alberta and Saskatchewan nursing groups related to the possible development of PTSD with the goal of preventing PTSD from occurring and decreasing the number of critical incidents that are reported.

### **Summary**

This section of the literature review defined the issue of PTSD. The significant impact on nursing was discussed. Professional nursing association position statements developed for use by nurses related to PTSD were identified. The impact on nursing if

PTSD is not resolved, actions that have been instituted to decrease the prevalence of PTSD and recommendations for further initiatives were presented.

The literature review presented several recommendations for further research. In order to address the limitations of the previous research, future research needs to include the following:

1. Longitudinal studies to investigate the effectiveness of interventions and policies related to the exposure to critical incidents, the possible development of PTSD and zero tolerance for violence in the workplace.
2. Replication studies to strengthen the findings of previous research. Lavack-Pambrun (2000) suggests that replication will lend support to further defining the concept of PTSD in the DSM-IV.
3. Comparison between male and female responses to critical incidents as suggested by Powell (1996). This has been difficult in the nursing profession due to the continued prevalence of females in this occupational group.
4. Determination of prevalence rates for PTSD in nurses outside of the workplaces that have been examined to compare to the previous research.
5. Study of the meaning of a critical incident across cultures in nursing.
6. Research into the effectiveness of debriefings.

This replication study determined the prevalence rate for PTSD in a sample of nurses that had not been investigated. The meaning of a critical incident was also explored with First Nations nurses in the sample group of this study.

**Conclusion**

In summary, this literature review focused on topics associated with the development of PTSD, including workplace violence, critical incidents and PTSD. The review revealed that in the prevention of PTSD among nurses, development needs to occur in the areas of nursing administration, practice, education and research. The purpose of this quantitative study was to determine the prevalence of Post-Traumatic Stress Disorder among home and community care nurses working in Alberta and Saskatchewan First Nations communities. The investigation also determined these nurses' knowledge of what constitutes a critical incident and identified what has been a stressful situation they have encountered in the workplace. This research addresses gaps in the literature by exploring the prevalence of PTSD in home and community care nurses working in First Nations communities. It also investigates the meaning of a critical incident in a cross-cultural sample of Aboriginal and non-Aboriginal nurses.

## **Chapter 3**

### **Methodology**

#### **Design**

This study was designed to determine the prevalence of PTSD among Alberta and Saskatchewan home and community care nurses working in First Nations communities, the nurse's knowledge related to critical incidents, and to learn about stressful situations they may have encountered in the workplace. The design for this research study was a non-experimental, cross-sectional, descriptive design. It was a replication study which attempted to validate the findings from four previous studies (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996).

#### **Study Setting**

The study setting was 57 First Nations communities in Alberta and 28 First Nations communities in Saskatchewan where FNIHB Home and Community Care Program nurses are employed.

#### **Sample**

The sample for this study was 130 home and community care nurses, 100 in Alberta and 30 in Saskatchewan working in First Nations communities in these provinces. Inclusion criteria were that the nurses had to have oral and written English skills and that they were registered with either the Alberta Association of Registered Nurses (AARN), the College of Licenced Practical Nurses of Alberta (CLPNA), the Saskatchewan Registered Nurses' Association (SRNA), or the Saskatchewan Association of Licenced Practical Nurses (SALPN). Their employer was a First Nations tribal council, a First Nations band, or First

Nations and Inuit Health Branch. Health care aides, home care aides and non-nurses employed in the Home and Community Care Program were excluded from the study.

Access to the sample in Alberta was obtained through the FNIHB Home and Community Care Coordinator. All surveys were sent to the coordinator and then mailed to the subjects. In Saskatchewan, the sample was accessed through four home care nurse managers, using a contact list provided to the researcher by the home and community care coordinator at the FNIHB regional office. The list included the nurse manager's name, employer, address, and number of nurses working in the Home and Community Care Program with this manager. The questionnaire and self addressed, stamped return envelope were mailed by the investigator to each home and community care nurse manager at the work address indicated on the contact list. The investigator wrote a small "SK" on these questionnaires to identify which surveys had been returned from Saskatchewan, and for those without the "SK", those returned from Alberta.

A power analysis was conducted to determine the appropriate sample size required to obtain significant results. The analysis was performed using the significance of 0.05, power of .80, and an effect size of .40. Most nursing studies use an effect size between 0.20 to 0.40 (Polit & Beck, 2004). The sample size needed for this thesis was 50 participants.

### **Instrumentation**

Instruments selected were the same as those used by previous investigators (Cornell & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996). The instruments were a nursing questionnaire modified by the researcher, the Impact of Events Scale (Horowitz, Wilner & Alvarez, 1979) and the Brief Symptom Inventory (Derogatis, 1993).

The PTSD symptom profile scale for assessing PTSD symptom severity by Burge (1988) was also used. The nursing questionnaire contained two questions to elicit qualitative data responses. Patton (2002) states that mixed quantitative and qualitative studies allow creative and adaptive approaches to answering research questions. This was important in this study as the qualitative responses added depth and substance to the qualitative data.

### **Nursing Questionnaire**

The nursing questionnaire was used to collect demographic data regarding the subject's marital status, education, employment status and years of nursing experience. Questions regarding social habits and participation in a formal group Critical Incident Stress debriefing session were also included (see Appendix B). The demographic data was utilized to compare to previous investigations where this data revealed a significant relationship. Dobbyn (1994) found that years of nursing experience was positively related to PTSD, while educational level and marital status were negatively associated with PTSD.

### **Impact of Events Scale**

The Impact of Events Scale (IES) (see Appendix C) was developed based on Horowitz's higher-order two factor model of trauma response (Joseph, 2000). The IES is a self-reporting scale that assesses two components of PTSD: intrusion (re-experiencing cognitions) and avoidance (denial of thoughts and avoidant behavior) (Horowitz, Wilner & Alvarez, 1979). It is the most widely used instrument for the assessment of trauma (Cornell & Kirwan, 1994) and PTSD (Joseph, 2000). The IES response sets of intrusion and avoidance and the experiences associated with them by study populations are included in Lazarus' (1966) theory of stress and coping (Horowitz, et al., 1979).

The IES has 15 items rated on a four point scale of intensity (0= not at all, 1=rarely, 3= sometimes, and 5= often). Items 1, 4, 5, 6, 10, and 14 are summed for the intrusive subscale. Items 2, 3, 7, 8, 9, 12, 13, and 15 are summed for the avoidance subscale. All items are summed for the total score which reflects the "total subjective stress score" (Horowitz et al., 1979). Scores from 9-25 are an indication of mild to moderate impact, and scores above 26 indicate moderate to severe impact (Horowitz et al., 1979).

A test-retest reliability of .87 for the total IES has been reported and .89 and .79 for the intrusion and avoidance subscales respectively (Horowitz et al., 1979). Internal consistency using Cronbach's alpha has been reported as 0.78 for intrusion and 0.82 for avoidance (Horowitz et al., 1979). According to Joseph (2000), the IES has provided the standard measurement for self-reporting of PTSD for over 20 years and been used in studies with war veterans, firefighters, and victims of assault. It has been utilized in a study of Canadian firefighters (Corneil, 1993) and in several studies of Manitoba nursing groups (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996).

Three problems with the IES have been reported in the literature. Firstly, few studies have reported on the internal consistency and test-retest reliability of the instrument, therefore, there may be an overestimation of the reliability of the IES (Joseph, 2000). Secondly, the IES only measures two of the four components of PTSD. Joseph (2000) states that there are no items related to hyperarousal criterion D. Some avoidance and intrusive symptoms are not included, for example, decreased interest in activities and flashbacks. Despite the poor content validity for measuring PTSD, the IES has produced

results that differentiate between subjects that have PTSD and those who do not (Joseph, 2000).

The final limitation of the IES is that the optimum cutoff point for scoring PTSD has not been determined. Joseph (2000) and Brewin (2005) suggest a cutoff score of 35, while Corneil and Kirwan (1994) and Lavack-Pambrun (2000) utilized a cutoff score of 26. For the purpose of this thesis, the cutoff score of 26 points was used.

### **Brief Symptom Inventory**

The Brief Symptom Inventory (BSI) is a condensed 53 item version of Derogatis's (1993) Symptom Check List (SLR-90) (see Appendix D), which is a 90 item self-report scale. Each item of the BSI is rated on a five-point scale of distress (0-4), ranging from end points of not-at-all (0) to extremely (4) (Derogatis, 1993). It requires eight to ten minutes to complete. The test-retest reliability for the BSI ranges from .68 to .91 for individual scale areas (Derogatis, 1993). Internal consistency using Cronbach's alpha ranged from .71 to .85 (Boulet & Boss, 1991).

The BSI was scored on nine areas of symptoms including somatization, obsessive-compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Raw scores for each of the nine symptom dimensions were calculated by summing the values (0-4) for the items in each symptom dimension and the four additional items. The sum of each symptom dimension was then divided by the number of responses received from the subject in that dimension. Finally, .005 was added to the sum as per scoring instructions on the BSI worksheet (Derogatis, 1979).

The BSI is also scored on three global indices, Global Sensitivity Index (GSI), Positive Symptom Total (PST) and, Positive Symptom Distress Index (PSDI) (Derogatis, 1993). The GSI defines the subject's level of distress including the number of symptoms and intensity of distress. The PST is the number of symptoms the subject reports experiencing and the PSDI provides information about the participant's "style" of experiencing distress (Derogatis, 1993). To calculate the GSI, the nine symptom dimensions and four additional items were summed and then divided by the total number of responses, 53 if there are no missing items, and .005 was then added to this sum. The PST was calculated by counting the number of nonzero responses on the instrument. The PSDI was calculated by dividing the total sum of the items by the PST and adding .005. All of these scores were represented in two decimal places and put onto the BSI worksheet (see Appendix E) (Derogatis, 1993).

Corrections for missing data were made by using the actual number of responses to the nine symptom dimensions and four additional items. The raw scores were then transferred to the BSI profile sheet (see Appendix F). The scores were then used to graphically illustrate the subjects' current symptom status and determine the T score. The BSI profile norm group utilized in this study was nonpatient adult female (Derogatis, 1993).

The BSI scale has been used extensively in studies of populations including psychiatric in-patients (Owens & Qualls, 2002), psychiatric out-patients, and non-patient adults (Corneil & Kirwan, 1994). It has also been utilized with inmate populations, patients with substance use issues, HIV patients, and with student sample groups (Derogatis, 1993). Previous nursing studies in Manitoba have also utilized this instrument (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996).

### PTSD Scale

Burge (1988) devised a formula for the creation of a PTSD diagnosis in her study of survivors of rape. Using the IES and BSI, Burge matched the individual test items to the DSM-III-R, criteria for PTSD (Burge, 1988) (see Appendix G). This allows the two scales to be used which reinforces the measurement of traumatic stress symptoms as well as differentiating the chronic stress levels associated with the diagnosis of PTSD (Burge, 1988). It has been utilized in previous investigations in Manitoba nursing groups (Corneil & Kirwan, 1994; Dobbyn, 1994; Powell, 1996).

Burge's (1988) scoring system was used to rank the severity of the subjects' PTSD symptoms. Using subject responses, re-coding of the four-point IES and five-point BSI scale resulted in a PTSD symptom profile using a standardized three point scale - High = 3, Moderate = 2, and Low = 1 (Burge, 1988). Next, each grouping of the criteria (1) re-experiencing the event, criteria B, (2) avoidance of the stimuli, criteria C, and (3) miscellaneous symptoms, criteria D, was ranked high, moderate or low by averaging and then rounding the items within each group. Lastly, the severity of PTSD was determined by totalling the rankings from criterion B, C and D. Individuals were considered to have high severity if their sum was eight to nine, moderate severity if five to seven, and low if the sum was three or four (Burge, 1988). Only those subject responses that were moderate or high were considered as having PTSD (Corneil & Kirwan, 1994).

Burge (1988) did not specify criteria for the valid completion of the IES or BSI, thus even if either of the instruments were missing responses, a score could be determined with only one score. For this study, a threshold of 20% completion of items on each scale

was required for scoring. For the IES, three out of fifteen items had to be answered, and seven out of thirty-five responses were required on the BSI by the participants. The four point IES was re-coded to the Burge (1988) three point criteria as 0-1.99 = 1, 2.00-3.99 = 2, and 4 through 5 = 3. The five point BSI was recoded to the three point criteria as 0-1.49 = 1, 1.50-3.49 = 2, and 3.5- 4.0 = 3 (S.K. Burge, personal communication, October 26, 2006).

For this study, an alternative to the original Burge (1988) scoring was created that more closely matches the DSM-III-R criteria for PTSD, as compared to the original Burge method. Burge Modified, as it was named by this investigator, determined the PTSD prevalence on the presence of moderate to high symptom intensity levels under criteria B, C, and D. The minimum number of responses on each of the instruments was 20% as described for the original scale. Criteria A of a stressor event was also required for the Burge Modified scoring scale. For criteria B, C and D, a minimum number of symptoms had to be ranked either moderate or high by the participant in order for the responses to be scored. For criteria B, one of the symptoms had to be present and at least two of the four symptoms had to be answered (even if the answer was 0 or 1) to classify as no symptom versus a missing response. For criteria C, at least three symptoms had to be present and two symptoms were required for criteria D.

### Data Collection Procedure

Ethical approval was received by the Education/Nursing Research Ethics Board (ENREB) prior to the data being collected. Data collection was conducted using a standardized survey in a questionnaire format, the Impact of Events Scale, and the Brief Symptom Inventory. Self-administered questionnaires are considered economical and permit flexibility for the mode of distribution (Brewin, 2005). They also allow for anonymity of the respondents.

Dillman's (1978) framework for mail surveys was utilized. The Total Design Method (TDM) features a personalized cover letter (see Appendix H), questionnaire, and a follow-up reminder mailing (see Appendix I) (Dillman, 1978). The initial mailing included a stamped, self-addressed envelope in which to return the questionnaire. At one week, two weeks and at four weeks, a reminder letter was mailed to all of the study population. The TDM has been proven to be effective in achieving response rates as high as 70% (DeLeeuw & Hox, 1988).

The subjects were invited to read the nursing questionnaire and circle their response to each question or fill in the requested information where required. The IES was the next instrument for the participants to complete. The subjects checked each of the 15 items indicating how frequently the comments were true for them during the past 30 days. If the subjects did not experience the comment related to a stressful life event, they responded with a "not at all" check mark in the first box. The final instrument completed by the respondents was the BSI. The respondents were asked to circle the number from zero to four on the hand-scored answer sheet which described how much the problem listed in each

item had bothered them in the past week.

The instruments were then placed in the self-addressed stamped envelope by the subject and mailed to the address on the envelope. To ensure participant confidentiality, the survey was returned to the home address of one of the thesis committee members. All identifying information, such as return address or postal station location, were removed from the envelope by the committee member without viewing the contents prior to giving the envelopes to the investigator.

### **Data Analysis**

In order to answer the first research question, prevalence of PTSD, each individual's data from the IES and BSI was re-coded to Burge's scoring profile. The scoring profile scores were then summed. The number of subjects with scores of five and above (moderate and high range) was divided by the number of respondents to calculate the prevalence of PTSD among Alberta and Saskatchewan home and community care nurses working in First Nations communities at that point in time. This rate was then compared to previous studies (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996). Comparisons were also made with Vietnam veterans at a prevalence rate of 15% for PTSD and the general population prevalence rates of 1-14% for PTSD. Chi-square statistic was used to identify any specific relationships between the demographic data and the presence of PTSD (Powell, 1996).

With respect to the IES, the mean and standard deviation of intrusion, avoidance and IES total scores were determined. These responses were compared with the Medical Services Branch (MSB) nurses investigated by Corneil and Kirwan (1994), Correctional

nurses by Lavack-Pambrun (2000), and ER and ICU nurses by Powell (1996). The mean and standard deviation were determined for each of the nine subscales of the BSI and the three global severity indices. These responses were compared with the nursing populations investigated by Corneil and Kirwan (1994) and Powell (1996).

The second research question, how do home and community care nurses define a critical incident, was answered using content analysis. Content analysis according to Patton (2002) refers to the clustering of qualitative data by recurring themes and meanings. The data was organized and grouped into themes based on the definition of a critical incident from the literature review. Open coding of the responses occurred first, followed by axial coding around the category of a critical incident.

Qualitative data responses to research question three, "What is a stressful situation home and community care nurses have encountered in the workplace?" was analyzed using two separate coding groupings. The first data coding included the thematic grouping of whether the stressful situation was a physical threat, or emotional threat, or both. A physical threat was defined by using the DSM-IV (APA, 1994) Criterion A1 - "the person experiences, witnessed, or has been confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others" (p. 427). The definition of an emotional threat was Criterion A2 of the DSM-IV (APA, 1994) which states "the person's response involved intense fear, helplessness, or horror" (p. 428). These definitions were also utilized by Lavack-Pambrun (2000).

The additional analysis using content analysis involved grouping the responses under the two major headings of nursing practice issues and workplace issues. Nursing practice

subgroups included, but were not limited to, death of a child, abuse from patients or their families and friends, personal identification with a victim, loss of life following a rescue effort, and death of a patient or serious injury as a result of a nursing procedure. Workplace issue subgroup categories included, but were not limited to, behavior of medical personnel, behavior of co-workers, increased patient work load, and behavior of management.

Utilizing these headings and subgroup themes enabled comparison of the results to occur with the study responses of Manitoba ER and ICU nurses (Powell, 1996).

To ensure quality in the qualitative data, Polit and Beck (2004) suggest that Guba and Lincoln's four criteria of credibility, dependability, confirmability and transferability be utilized. Credibility, or trustworthiness of the data, was demonstrated using a peer review process (Polit & Beck, 2004). A member of the thesis committee reviewed the data analysis for relevancy of the researcher's themes and cluster groupings. An inquiry audit was also performed by the peer reviewer to establish dependability, data stability, confirmability and, data neutrality (Polit & Beck, 2004). Transferability of the data to other settings and populations was assessed by utilizing the data themes from ER and ICU settings as proposed by Powell (1996).

### **Ethical Considerations of the Subjects**

This thesis proposal was submitted to the University of Manitoba Education/Nursing Research Ethics Board (ENREB) for approval, which was received April 11, 2006 (see Appendix J). An amendment to the proposal was approved July 28, 2006 (see Appendix K). Approval was also obtained from the FNIHB nursing directorate (see Appendix L). The Health Canada Research Ethics Secretariat concluded on March 28, 2006, that ethical

review by the Health Canada Research Ethics Board was not required.

Subject participation was voluntary. Participants could withdraw from the study at any time or not respond to a particular question without consequences. Informed consent was inferred with the return of the completed questionnaire, which included a cover letter explaining the qualifications of the investigator, purpose of the study, how data would be analyzed, and how confidentiality would be maintained. Contact information for the thesis chairperson and the human ethics secretariat was also included. The investigator included the contact information for the Critical Incident Stress Management (CISM) team with each questionnaire.

The completed questionnaires were sent to the home address of a thesis committee member. The return addresses and postage locators were removed prior to submitting the questionnaires to the investigator. Confidentiality was maintained by assigning a number to each questionnaire, upon receipt. The data were locked in a filing cabinet in the researcher's office and will be destroyed after seven years. Access to the data was limited to the researcher and the thesis committee members associated with this study.

A written summary of the results will be sent to all participants that requested it by completing the tear off section of the cover letter and by providing contact information. All identifying data will be suppressed from any presentations or reports.

### **Limitations of the Study**

This study had several limitations. This study was originally intended for home and community care nurses working in First Nations communities in Manitoba. However, the Health Information Research Committee at the Assembly of Manitoba Chiefs did not support the study proposal when it was submitted for their approval. The study was then moved to the provinces of Alberta and Saskatchewan.

Another limitation was related to the small sample size. A power analysis (Polit & Beck, 2004) was conducted and the desired sample size was determined to be 50 participants. This would have required a 38% response rate, from the 130 home and community care nurses working in First Nations communities in Alberta and Saskatchewan. Unfortunately this response rate was not achieved which limited the ability to detect differences from previous studies.

Another limitation was that a survey, in the form of a questionnaire, was utilized to collect data. There is not usually a very high rate of return with survey research, often around 30% (Yoon & Horne, 2004) as it is a voluntary process for the participants. The responses from the participants were also retrospective and dependent upon the memory of the respondents. The data collected from the sample group was subjective and depended upon the perception of the individual. On the other hand, survey research allowed for anonymity of the respondents, and it is not known if personal interviews (either in-person, by telephone, or in a group setting) would have necessarily resulted in greater participation.

Burge's (1988) PTSD scale was also a limitation in this study. In the original article by Burge (1988) and the three theses utilized for comparison with this study, the re-coding

method of the data from the BSI and IES was not clearly explained. The three investigations (Corneil & Kirwan, 1994; Dobbyn, 1996; Powell, 2000) also included items from the IES and BSI in the Burge scale that were not in the original scale and there was no explanation for their inclusion. This made comparisons between the studies difficult and inaccurate as the coding method may not have been the same. In an attempt to clarify the re-coding method, Burge was contacted directly and did provide information as to how she re-coded the instruments for her study (S.K. Burge, personal communication, October 20, 2006). It was not clear if the previous researchers utilized a similar methodology. Furthermore, there was insufficient information about the minimal number of responses and how missing responses were handled.

### **Conclusion**

In summary, this methodology chapter described the design of the study. The instrumentation utilized in this replication study were discussed. The PTSD scoring scale devised by Burge (1988) was also presented in detail to ensure understanding of the re-coding process. The data collection procedure for the study was described. Ethical considerations and the approval process were included. Data analysis approaches for responding to the research questions was discussed. Limitations of the study were also included in this chapter.

## Chapter 4

### Results

This chapter describes the results of the data analysis. Following a discussion of the sample characteristics and instrument scores, research question one will be answered. The qualitative data will then be analyzed to answer research questions two and three.

The purpose of this study was:

1. To determine the prevalence of Post-Traumatic Stress Disorder among home and community care nurses working in Alberta and Saskatchewan First Nations communities.
2. To determine these nurses' knowledge of what constitutes a critical incident
3. To identify what has been a stressful situation they have encountered in the workplace.

Data for this study were collected over a two month period. One hundred and twenty-seven surveys were mailed on August 1<sup>st</sup>, 2006. A request for three additional surveys was received and responded to prior to the end of August, bringing the total number of surveys mailed to one hundred and thirty. Three reminder letters were mailed with the initial survey in stamped envelopes for distribution on August 14<sup>th</sup>, 21<sup>st</sup> and September 4, 2006. By November 27<sup>th</sup>, 44 surveys had been returned (34%). One survey was incomplete and not included in the analysis. Three surveys were returned in November after data analysis had been completed and these were not included in the study. The total number of usable surveys was 40 or 31% of the sample. Thirteen participants requested that a written summary of the results be sent to them.

The instruments were hand scored by the investigator and all data were coded and transferred to a computer data base. The Statistical Package for the Social Sciences (SPSS) was used to calculate results. Data derived from the narrative questions on the nursing questionnaire were subjected to qualitative analysis and themes emerging from the data were identified.

### **Demographic Data**

#### **Current living arrangement**

Forty-eight percent (n=19), of the subjects were married and living with their spouse. Common law marriages accounted for 18% (n=7) of the total sample. Thirty-eight percent (n=15) had previously been divorced or separated, 5% (n=2) were widowed, and 15% (n=6) had never married. Forty-three percent (n=17) identified themselves as Aboriginal nurses.

#### **Education**

Of the 39 respondents who answered this question, 13% (n=5) had completed a hospital based nursing program. Completion of a community college nursing program was the most common type of educational preparation at 35% (n=14). Some university/college courses were reported by 25% (n=10) while 25% (n=10) were university nursing program graduates. There were no Master or PhD nurses in the sample. A one-sample Chi-square test was used to determine whether the frequency of the level of education completed differed among personal identification groups. The Chi-square obtained was significant at the 0.05 level ( $\chi^2 = .033$ ,  $df = 3$ ,  $p < 0.05$ ). Nine of the Aboriginal nurses completed a college nursing diploma compared with five of the non-Aboriginal nurses. In contrast, only two of

the ten university nursing graduates were Aboriginal. The Chi-square analysis results are presented in Table 1.

Table 1

Contingency Table of Two Variables (Highest Level of Nursing Education Completed and Aboriginal Identification) Using Chi-Square Analysis

Level of Education	<u>Identification of the H&amp;CC Nurse</u>	
	Aboriginal	Non-Aboriginal
Hospital program	0	5
College program	9	5
Some university	5	5
University graduate	2	8
Total <sup>a</sup>	16	23

*Note.*  $p < 0.05$

<sup>a</sup>=39 of the 40 participants completed these questions

Thirty nurses were Registered Nurses representing 75% of the sample. There were 10 LPNs which were 25% of the subjects. All of the respondents (n=40) worked primarily in the Home and Community Care Program in a First Nations Community. Thirty percent (n=12) of the respondents worked in Saskatchewan, while 70% of the subjects (n=28) worked in Alberta. The response rate from Alberta nurses was 28%.

### **Employment Status and Employer**

Of the 39 responses to this question regarding employment status and employer, the majority of the nurses 46% (n=18) worked full-time for a First Nations Band, 36% (n=14) worked full-time for a Tribal Council, while 5% (n=2) worked full-time for FNIHB. Five percent (n=2) worked part-time or relief for a First Nations Band and 8% (n=3) worked part-time or relief for FNIHB. All of the nurses (n=40) worked primarily in the Home and Community Care Program. Thirty percent (n=12) worked in First Nations communities of 301-800 persons, 23% (n=9) worked in communities with a population base of 801-2000 people, 18% (n=7) worked in communities with a population of 2001-5000, and 25% (n=10) worked with populations over 5000 persons. Only 3% (n=1) worked in communities that are 300 persons or less in size.

### **Nursing Experience**

The reported nursing experience ranged from two and a half years to 42 years. The *mean* was 15.2 years, *median* = 14 and *SD*= 10.73. The majority of the nurses 90% (n=36) have worked for the Home and Community Care Program for more than 24 months. Eight percent (n=3) have worked for 12 - 24 months, while three percent (n=1) have worked in the program for less than one year. There was no significant difference noted when the Chi-square was calculated for Aboriginal identification and employment length in the Home and Community Care Program..

### **Social Habits**

One quarter (n=10) of the nurses were cigarette smokers. Most of the smokers (n=6) smoked one half to one package per day. Thirty percent (n=3) smoked less than one

half pack per day. One nurse did not indicate quantity smoked per day.

Half (n=20) of the nurses reported that they consumed alcohol with 60% (n=12) drinking between one and seven drinks per week. Ten percent (n=2) indicated that they drank eight to fifteen alcoholic drinks per week. Six nurses did not indicate the quantity of alcohol consumed in a week.

Fifty-six percent (n=22) of the nurses exercised regularly. The number of nurses who reported that they exercised regularly three times a week or more was 17 (73%). Twenty-two percent (n=5) exercised at least twice a week, four percent (n=1) exercised once a week and 44% (n= 17) of the respondents did not exercise regularly. Sixty-eight percent (n= 27) of the nurses declared themselves overweight.

### **Life Stressors**

Thirty-seven of the nurses indicated that they had experienced a major personal/life event in the past year. Forty-three percent (n=17) of the respondents reported a serious illness in the immediate family, while a death in the immediate family was reported by 35% (n=14). A major financial problem was reported by 33% (n=13) of the nurses. Serious injuries occurring in their immediate family (20%, n=8) were also identified by the respondents.

Approximately one half of the nurses (48%, n=19) had sought professional assistance for stress-related health problems. Family physicians and psychologists were each contacted by 35% of the subjects (n=14). Other professionals consulted were clergy, 10% (n=4), social workers 10% (n=4) and other 10% (n=4) identified as mental health therapists and church family services.

### **Injury in the Workplace**

During the course of their careers, 45 percent (n=18) of the nurses had been injured while on duty. Of those who reported being injured, 13% (n=5) were injured only once, while, 30% (n=12) were injured more than once and 23% (n=9) identified that they were absent from work for more than one week because of work injury. Twenty percent (n=8) who were injured at work continued to experience problems related to their injury. Back injuries were the most common (35%, n=14), followed by other injuries (15%, n=6) including animal bite, ankle, hand, neck and shoulder injuries. Needlestick injuries were reported by 13% (n=5), sprains by 10% (n=4) and lacerations by 5% (n=2) of the respondents.

### **Nurse Abuse in the Workplace**

Home and community care nurses responded that most verbal threats of physical harm were from patient's family members/friends, 55% (n= 22), followed by patients at 45% (n=18). Threats from nurses in the workplace were reported by (10%, n= 4) of the sample and 3% (n=1)of the nurses responded that verbal threats were from physicians.

Attempts of physical harm occurred most frequently from patients (35 %, n=14), followed by patient's family members/friends (20%, n=8). Nurses reported that 3% (n=1) of the attempts of physical harm, threats of physical violence toward them, were from other nurses. Attempts of physical harm by physicians were reported by 3% (n=1) of the sample. The nurses could also add other with a description to this question and 5% (n=2) had been threatened with physical harm by dogs.

Nurses were subjected to actual physical attacks most often by patients (25%, n=10), then by doctors (10%, n=4) and also by nurses (10%, n=4). Dogs were reported as another source of physical attacks by 5% (n=2) the sample. Physical attacks by a patient's family members/friends were reported at 3% (n=1).

The need to seek medical attention for physical injuries from attacks by nurses and physicians were reported by 10% (n=4) of the subjects. Eight percent (n=3) reported seeking medical attention for injuries from patient's family members/friends and three percent (n=1) for injuries due to physical assault by a patient. Only five percent (n=2) required medical attention when physically injured following attacks by animals, one was a dog, the other a patient's cat.

### **Stress in the Workplace**

Twenty-two of the 38 respondents (55%) indicated that they most often work alone and not with other nurses. Formal group critical incident stress debriefing sessions were reported to have been attended by 35% (n=14) of the nurses.

The majority of the nurses (83 %, n=33) recorded at least one significant event at work that had caused them significant stress during the past year. Most of the stress was reported during the months of June, August, January, March and May. When asked where the stressful event occurred, a grouping of the responses indicated that "at work" was the most frequent answer (55%, n=22), followed by in the community (14%, n=5), at the hospital (5%, n=2), on the road (5%, n=2) and in the physician's office (3%, n=1). Twenty percent (n=8) of the nurses did not respond to this question.

Subject responses to the IES items are presented in Table 2 and are compared with the responses of the MSB nurses by Corneil and Kirwan (1994) and correctional nurses by Lavack-Pambrun (2000).

Table 2

Comparison of Scores of Three Nursing Samples on the (IES) Impact of Events Scale using a *t*-test

	Home & Community Care		MSB		Correctional		1 vs 2	1 vs 3
	(N=39) <sup>a</sup>		(N=88) <sup>b</sup>		(N=68) <sup>c</sup>			
	1		2		3			
Item	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>p-value</i> <sup>d</sup>	<i>p-value</i> <sup>d</sup>
Intrusion	11.36	10.57	11.86	9.08	10.13	7.08	ns	ns
Avoidance	12.21	10.84	9.99	8.76	8.00	6.82	ns	<0.05
IES Total	23.56	20.86	21.90	17.06	8.13	13.07	ns	ns

*Note.*

ns=not significant

a=39 of the 40 participants completed the IES

b= Medical Services Branch - Corneil, W and Kirwan, S. (1994)

c= Lavack-Pambrun, S. (2000)

d=Independent samples *t*-tests

Table 2 shows that the home and community care nurses and MSB nurses were not significantly different on the three scale items. There was a significant difference on avoidance items between the home and community care nurses and the correctional nurses,  $p < 0.005$ , in the IES avoidance subscale with the home and community care nurses having a higher distress level. Using the Horowitz et al. (1979) cut off point of more than 26 on the IES total, 38% (n=15) of the home and community care nurses were found to have PTSD.

Table 3

Comparison of Home and Community Care Nurses to Two Nursing Samples and a Normative Sample of Non-Patients on the (BSI) Brief Symptom Inventory using independent samples t-test

	1 H&CC Nurses ( <i>N</i> =39) <sup>a</sup>	2 MSB Nurses ( <i>N</i> =88) <sup>b</sup>	3 CORRECTIONS Nurses ( <i>N</i> =77) <sup>c</sup>	4 NON-PTS ( <i>N</i> =719) <sup>d</sup>
Subscale	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Somatization	.63 (.71)	.27 (.49)	.48 (.62)	.29(.40)
Obsessive-Compulsive	1.34(1.05)	1.08(.84)	1.00 (.87)	.43(.48)
Interpersonal Sensitivity	1.28(1.22)	1.03(.83)	.77 (.72)	.32(.48)
Depression	.90 (.97)	.78(.77)	.60 (.69)	.28(.46)
Anxiety	.95 (.87)	.73(.71)	.79 (.79)	.35(.45)
Hostility	.83 (.87)	.64(.62)	.72 (.71)	.35(.42)
Phobic Anxiety	.44 (.66)	.29(.52)	.29 (.55)	.17(.36)*
Paranoid Ideation	1.11(1.71)	.92(.71)	.74 (.72)	.34 (.45)
Psychoticism	.84 (.93)	.57 (.61)	.45 (.64)*	.15(.30)+
Global Severity Index	.92 (.81)	.90 (.73)	.65 (.61)	.30 (.31)

Note. \* $p < 0.005$ , + $p < 0.01$

a=39 of the 40 participants completed the IES

b= Medical Services Branch - Corneil, W., and Kirwan, S. (1994)

c= Lavack-Pambrun, S. (2000)

d= Derogatis, L. (1979)

The results presented in Table 3 show ratings that are fairly similar among the four groups. A significant difference between the home and community care nurses, the correctional nurses and the normative sample of non-patients related to the BSI subscale of psychoticism is shown. This may be explained by these nurses experiencing a higher degree of psychological distress and exhibiting symptoms described as associated with a schizoid lifestyle, such as thought control (Derogatis, 1979). Another significant difference was noted between the home and community care nurses and the non-patient normative sample related to the BSI phobic anxiety subscale. The nurses indicated a fear response to a specific person or situation which may lead to avoidance, at higher levels than that of the general public.

### **Post-Traumatic Stress Disorder**

Data from the Impact of Events Scale (IES) and the Brief Symptom Inventory (BSI) were analyzed to determine the prevalence rate of PTSD in home and community care nurses working in First Nations communities in Alberta and Saskatchewan. Using Burge's (1988) scoring scale to determine the severity of the symptoms, a diagnosis of PTSD occurs when an individual reports a moderate or high number of symptoms that are interfering with their ability to live a normal life. Subjects are ranked as moderate if the score on the PTSD scale is five, six or seven. A high number of symptoms is determined if the subject had a score of eight or nine on the PTSD scale (Burge, 1988).

In this study, there were 12 nurses who had a moderate to high level of symptoms. In other words, 33% met Burge's diagnostic criteria of PTSD. The data also showed that

not all precursor events, criteria A, result in a diagnosis of PTSD. Using the Burge Modified scoring method, described earlier, there were 42% (n=15) that met the diagnostic criteria for PTSD. Cross-tabulation found an 86% agreement rate between the two Burge methods. Corneil and Kirwan (1994) found a prevalence rate of 36% of PTSD in northern outpost nurses in Manitoba using Burge's (1998) PTSD scoring scale. Lavack-Pambrun (2000) found that correctional nurses in the prairie region of Canada had a similar PTSD prevalence rate to the northern nurses at 37% using the results of the IES and BSI instruments. Powell (1996) found a PTSD prevalence rate of 42% among Manitoba ICU and ER nurses using the Burge's (1998) PTSD scoring scale.

Comparisons within the home and community care nurse sample and prevalence of PTSD were performed for Aboriginal identity, education level, smoking, years worked as a nurse, and participation in a formal group critical incident stress debriefing session. No significant difference was found.

Analysis also identified the percentages of the nurses having symptoms in each category of the DSM-III-R (APA, 1987) for PTSD. A comparison of the home and community care, MSB and ER/ICU nurses with diagnostic levels of PTSD was performed utilizing Burge's (1988) PTSD scoring scale. These findings are presented in Table 4.

Table 4

Comparison of Home and Community Care Nurses to Two Samples of Nurses with Diagnostic Levels of Post-Traumatic Stress Disorder (PTSD) utilizing DSM-III-R Symptom Criteria and Burge's (1988) Scoring Scale

Symptom	Percentage of Nurses with Diagnostic Level of Each Symptom		
	H&CC N=40	MSB b N=88	ER/ICU c N=426
<b>"B" Criteria - Re-experiencing Symptoms</b>			
Recurring Images	69	64	56
Recurrent Dreams	47	23	20
Feels Recurrence	67	58	49*
Distress at Exposure	63	49	45*
<b>"C" Criteria - Avoidance Symptoms</b>			
Avoid Thoughts	80	50*	52*
Avoid Activities	63	14*	52
Inability to Recall	71	35*	44
Lowered Interest	41	27	10*
Felt Detached	60	34	12*
Restricted Affect	47	27	20*
Foreshortened Future	70	28*	14*
<b>"D" Criteria - Increased Arousal Symptoms</b>			
Sleep Disturbances	75	44*	46*
Irritability	87	14*	13*
Concentration	94	46*	24*
Hypervigilance	84	35*	17*
Startle Response	38	8*	4*
Physical Reactivity	70	5*	5*

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*Note.* \* $p < 0.05$

b= Medical Services Branch - Corneil, W., and Kirwan, S. (1994)

c=Intensive Care Unit/Emergency Room - Powell, P. (1996)

*N*=sample size

Using Fisher's Exact Test; two-sided;  $p < 0.05$ , the difference between two proportions was analyzed. There were significant differences between the home and community care nurses and the northern nurses in the symptoms of avoiding thoughts, avoiding activities, the inability to recall, foreshortened future, and all of the increased arousal symptoms under "D" criteria. There were significant differences between the home and community care nurses and the ER/ICU nurses in the symptoms of feels recurrence, distress at exposure, avoiding thoughts, lowered interest, felt detached, restricted affect, foreshortened future, and all of the symptoms under "D" criteria.

Table 4 also illustrates that the highest proportion of a symptom at diagnostic levels of PTSD for the home and community care nurses was for concentration. The lowest percentage for a symptom of the home and community care nurses and the ER/ICU nurses was for startle response. In contrast, the highest level of distress related to the symptoms for the MSB and ER/ICU nurses was recurring images. This means that the nurses are unable to control the images of the critical incident that they were exposed to from entering into their mind during the course of normal daily activities. The lowest percentage of a symptom for the MSB nurses was the physical reactivity symptom.

### Qualitative Data

The majority of the nurses (78 %, n= 31) who returned the survey indicated at least one event at work that had caused them significant stress. Content analysis was used to analyze qualitative data. Utilizing the definitions for physical and emotional threat, the descriptions of the events were grouped into either a physical threat, emotional threat, or both.

Forty-two percent (n=13) of the sample had experienced both a physical and emotional threat related to the brief description they reported about a stressful situation at work. Examples of the threats included “called to an attempted suicide and the people were yelling at us to leave before we could assess the situation” and “involved in reporting suspected child abuse and was verbally assaulted by the mother for my involvement.” Other examples were related to the deaths or serious injuries of clients, co-workers and family members of the nurses. Emotional threats were described by 39% (n=12) of the respondents. Examples of emotional threats included interpersonal conflicts with co-workers, physicians, management and community members. One respondent reported “elders of the community who are supposed to be respected members within the community, yelling threats at me and swearing”.

Common elements identified in the responses were communication problems between co-workers. Some of the communication problems were between First Nations nurses and non-First Nations nurse colleagues. Some of the subjects implied by their responses that ethnicity was an underlying cause for some of these problems. Management was also reported as being a contributing factor to communication breakdowns as they were

involved in verbal abuse situations with staff members. Other comments included statements such as “she would argue with me continuously, staff meetings where nurses were verbally attacked and berated by management and a co-worker and I had a disagreement which turned into an argument, we did not get along after the incident”. Physical threats were described by 19% (n=6) of the respondents. Examples of physical threats included motor vehicle accidents, lack of workplace security and physical illness of self.

Two major groupings were identified in the data: workplace issues and nursing practice issues . The groupings were almost identical in the number of participant’s responses with workplace issues being reported at 52% (n=16) versus nursing practice issues at 48% (n=15).

### **Workplace Issues**

The three most distressing workplace issues were grouped into categories of behavior of a co-worker, workplace environment, and behavior of management. Behavior of a co-worker was the most reported issue by the nurses. An example of this behavior reported by a nurse was “arguing with the respondent when in a supervisory capacity”. An example given for communication problems was that “a rumour was being spread about me among co-workers that I was gossiping”. A nurse reported “overhearing gossip about another staff member and I was not happy about this as it could have been me”.

The workplace environment was reported as an issue by three nurses all of whom reported having been involved in motor vehicle incidents. One nurse reported “that on a snowy day, I was broadsided when the other driver slid through a stop sign”. One nurse

“rolled the work vehicle while driving from work”. The third nurse was “rear ended by another motor vehicle while driving to an educational session”. One nurse stated that “working in a building that has had all locks and office locks broken into means no security”.

The behavior of management was reported by less than one percent of respondents (n= 3). In one reported incident, “management verbally attacked and berated nurses in a staff meeting”. Another example given as an issue was that there had been a “significant change in leadership and there was an uncertainty of who would assume the leadership role”. Another example was “that when management terminated a nurse for not completing the work assignment, the other nurses became angry and refused to speak with the supervisor”.

### **Nursing Practice Issues**

Nursing practice issues anecdotes were reports that related to the nature of nursing practice. The four most common nursing practice issues in order of the number of reported events were: death, abuse of the nurse, serious injury to a patient, and personal identification with a victim. Twenty-six percent (n= 8) of the nurses reported a death as a nursing practice issue. Client deaths were reported as “sudden, one as a suicide, one as a child, and two as elderly clients”. Abuse of the nurse was reported as verbal attacks by physicians and patient’s family members. A physician “contradicted my diabetic teaching methods to a client”, was one example given. Examples of verbal attacks by patient’s family members included “yelling at the nurses at a patient’s home, a verbal assault by the mother of a patient, and family members of a client were frustrated about a patient care transportation decision and they telephoned the nurse and were verbally abusive on the phone”. Serious

injury to a patient was reported as an issue by two nurses. Personal identification with a victim was reported by one nurse.

### **Definition of a Critical Incident**

Eighty-eight percent (n=35) responded to the question requesting a description of what the term critical incident meant to the subjects with an example. Sixty-nine percent (n=24) described a critical incident as an event, incident or situation. When the investigator utilized the process of content analysis with the data, four major themes emerged related to being an event, the individual's reaction to the event, being a crisis event, and lastly that the well-being of the individual was threatened. Twenty-nine percent (n=10) of the respondents defined a critical incident as an event with a negative affect on an individual's ability to cope. One response was "any incident which has a significant impact on an individual's well-being (physical, mental or emotional)". Another subject wrote "a situation or event that effects your emotional well being resulting in disturbances of normal biological activities".

Twenty-nine percent (n=10) of the subjects defined a critical incident in relation to the event, person's reaction to the event, work performance and meaning of the event. One subject responded to this question by stating "an event that causes not only verbal or physical damage but also leaves some psychological damage that affects your ability to function within your job description for some period of time." Another definition presented by a subject was "an event that creates stress and can induce a significant change in behavior or management of one's life or how one copes with life and day to day events".

Nine of the subjects, 26%, defined a critical incident as a crisis event. One subject

stated that a critical incident is “any incident which causes ongoing stress to the worker”. Another definition was “an incident that causes severe emotional distress”. The final category of data grouping involved the elements that a critical incident was specific and threatened the well-being of an individual. Examples of this definition included “verbal or physical threats, physical harm that can cause physical or mental problems, and any event with actual or potential threat of harm to me or client or family”.

Examples of what a critical incident is were given by twenty subjects representing a response rate of 57% on this question. Four themes emerged from the data and were grouped accordingly. The majority of the respondents, 40%, (n=8) cited physical or verbal abuse as an example of a critical incident. This category included “physical attacks, verbal disagreement between co-workers and harassment by a client”. Thirty percent (n=6) cited a death as an example of a critical incident. The deaths that were described included “sudden death of a client, death from domestic abuse and death of a client following resuscitation efforts”. Ten percent (n=2) of the subjects gave an example of a critical incident related to the quality of life for patients. Ten percent (n=2) also stated that MVAs were examples of a critical incident.

### **Conclusion**

In summary, the results from the data collection and analysis were presented in this chapter. Quantitative findings were grouped under two main headings: demographics and PTSD. Qualitative data were presented under the headings of workplace issues, nursing practice issues and the definition of a critical incident. The three research questions were answered in this chapter.

The purpose of the first research question was to determine the prevalence of PTSD among home and community care nurses working in Alberta and Saskatchewan First Nations communities. The prevalence rate using Burges' (1988) PTSD scale was found to be 33% for the sample. The goal of the second research question was to determine these nurses' knowledge of what constitutes a critical incident. Four major defining themes of, it was an event, the individual's reaction to the event, it was a crisis event, and well-being was threatened, were identified from the responses. Examples of what a critical incident is to these nurses were also included. The third research question identified stressful situations subjects have encountered in the workplace. The majority of the nurses experienced a physical and emotional combined threat. Emotional threats were described as stressful by the respondents with communication problems between co-workers and management provided as examples. Physical threats included MVAs and a lack of workplace security. Workplace and nursing practice issues were also described in this chapter.

## Chapter 5

### Discussion and Conclusions

This chapter discusses the differences and similarities identified in the data analysis of this replication study with previous research. It also provides implications for nursing practice, administration, education and research.

The purpose of this study was to determine the prevalence of Post-Traumatic Stress Disorder among home and community care nurses working in Alberta and Saskatchewan First Nations communities. The investigation also determined these nurses' knowledge of what constitutes a critical incident and identified stressful situations the nurses in the study had encountered in the workplace.

The conceptual framework which directed this investigation was Lazarus' (1966) theory of stress and coping, which utilizes the variables of threat, a stress response utilizing primary and secondary appraisals of the threat, and factors that influence this process. In this investigation, the threat was exposure to a significant stressful event, or critical incident. The stress response was the development of PTSD, and workplace and nursing practice issues were the influential factors.

Research instruments were selected to replicate previous nursing studies that utilized the IES and BSI with samples of Manitoba nurses (Corneil & Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; & Powell, 1996). The subjects completed a nursing questionnaire, the IES, and the BSI.

### **Numbers of Participants**

The research sample was comprised of 40 participants which is smaller than the samples used in previous studies (88 nurses, Corneil and Kirwan, 1994; 80 nurses, Dobbyn, 1994; 77 nurses, Lavack-Pambrun, 2000; and 426 nurses, Powell, 1996). This represents a response rate of 31% which was lower than the 38% sample size requirement according to the power analysis that was conducted. The statistical implications of this small sample are that the significant differences may not be representative of the larger population of home and community care nurses. The significant differences may not really be significant and may not be generalized to the larger population as they may have occurred by chance due to the small sample that responded to the survey.

This investigation combined a qualitative and quantitative approach to answer the three research questions. Comparative tests were used to analyze the quantitative data. Qualitative data from the nursing questionnaire, questions 26 and 27, were analyzed using a content analysis approach.

The following are the conclusions from this study:

1. Home and community care nurses are at risk for developing PTSD.
2. Home and community care nurses working in Alberta and Saskatchewan understand what constitutes a critical incident.
3. Home and community care nurses are exposed to significant stressful events in the workplace

The results of the study indicated that home and community care nurses working in Alberta and Saskatchewan First Nations communities had a PTSD prevalence rate of 33%.

This prevalence rate was consistent with the findings of other investigations (Corneil and Kirwan, 1994; Dobbyn, 1994; Lavack-Pambrun, 2000; Powell, 1996). This study therefore demonstrated that home and community care nurses are at risk for developing and having the symptoms of PTSD due to exposure to critical incidents in the nursing workplace.

Some caution must be taken in comparing the results to the Correctional and, ER/ICU nurses as the previous investigators did not fully explain the method and scoring for how the prevalence of PTSD was determined in their respective studies. How the data from the IES and BSI was re-coded was not explained by three theses authors (Corneil & Kirwan, 1994; Dobbyn, 1996; Powell, 2000) who chose to use Burges' (1988) PTSD scale. This required making some assumptions on the part of this researcher on handling missing responses and missing scales altogether. Determining the prevalence of the PTSD utilizing Burges' (1988) PTSD scale did contribute positively to the research process as it did afford the opportunity to compare symptoms of PTSD described in the DSM-IV to subject's responses on the IES and BSI instruments, and also allowed for exploration of other methods of diagnosing PTSD using symptom prevalence and intensity.

Significant differences were found between the home and community care, MSB, and ICU/ER nurses when utilizing the DSM-III-R PTSD symptom criteria and Burge's (1988) scale. The results found in Table 4 illustrate that the highest proportion of a symptom at diagnostic levels of PTSD for the home and community care nurses was for concentration. Home and community care nurses were not able to concentrate which may lead to a decrease in physical health over time (Resick & Calhoun, 2001).

Of particular interest, are the significant differences found between the home and community care, MSB and ICU/ER nursing groups related to all of the "D" criteria, hyper arousal symptoms. Reasons for these significant differences may be that nurses are embedded in the communities in which they work, are under chronic stress in the workplace, and may not be able to have time away from the workplace to cope with any critical incidents that they encounter. If a nurse does require assistance following a critical incident, the results of this study showed that due to communication problems between the home and community care nurses, their colleagues and management, they may not seek resources that may be available to them. Home and community care nurses are often working alone and this may be a contributing factor in the development of PTSD, due to the potential for violence in the workplace (Green, 1998).

Results of this study assisted in the confirmation of findings in other studies (Corneil & Kirwan, 1994; & Hesketh et al., 2003) by identifying yet another nursing workplace with a high risk for violence. Family violence and substance abuse were found to potentially increase the risk for harm to persons working in First Nations communities (Green, 1998; Health Canada, 2005; Indian and Northern Affairs Canada, 2004; Kirby & LeBreton, 2002; Standing Senate Committee on Social Affairs, Science and Technology, 2002). Of the 31 respondents to the significant stress event at work question, five of the home and community care nurses stated that family violence or substance abuse in their workplace had caused them significant stress.

Education levels of nurses were also compared across studies and a significant difference was identified. Twenty-five percent of the MSB nurses (Corneil & Kirwan, 1994)

were graduates from a university nursing course which is the same result as the home and community nurse sample. In contrast, in Powell's (1996) study, only 17% of the hospital nurse sample graduated from a university nursing program. Of the 18,676 Canadian nurses surveyed in the 2005 national survey of their work and health, 51% of the nurses were graduates of a university nursing program (Shields & Wilkins, 2006). This educational level is much higher than that of the home and community care nurses. There may be a relationship between the level of a nurse's education and the development of PTSD. The curriculum of the baccalaureate nursing degree may contain information about workplace health and safety which may increase their understanding of the importance of protecting oneself from harm while at work.

Years of nursing experience in this study were very similar to those reported by Powell (1996) for the ER/ICU nurses, ranging from one to 43 years. The mean for these nurses was 14.6 years. The home and community care nurses had nursing experience ranging from two and one half to 42 years. The mean of this group was 15.2 years. Both of these nursing groups were very experienced.

The APA (2004) states that persons with substance abuse disorders, in other words, individuals that use tobacco and alcohol, may be at a greater risk of developing PTSD than those individuals without this lifestyle. The home and community care nurses responded that 25% of them were smokers and 50% of them used alcohol. Shields and Wilkins (2006) found the reverse result in their investigation with 37% of Canadian nurses identifying themselves as smokers, and 19% of the nurses stating they used alcohol at least twice a week.

Research question number two, revealed that home and community care nurses understand what is a critical incident and were able to define the concept. The investigator defined a critical incident, following a concept analysis, as "a reportable traumatic event such as the death of a patient, or personal physical or emotional assault which may negatively affect the person's ability to cope with the possible stress reaction". A number of the respondents defined a critical incident in similar terms. Nurses define a critical incident as an event and include the individual's reaction and inability to cope.

The final research question asked these nurses to describe a stressful situation they have encountered in the home and community care workplace. Nurses reported a wide variety of stressful events in the workplace that were grouped into the categories of both physical and emotional combined, emotional, physical, workplace issues, and nursing practice. There were more physical/emotional combined situations and workplace issues reported by the respondents.

The qualitative data related to nursing practice issues showed similar results to other studies in which subjects responded to nursing practice events they have encountered in the workplace. Death as a critical incident was reported by 50% of the correctional nurses (Lavack-Pambrun, 2000), 19% of the ER/ICU nurses (Powell, 1996), and 23% of the home and community care nurses. Death was also given as an example of a critical incident by 30% of the home and community care nurses. This finding is important as Marino (1998) states that the independence of the home and community care work environment provides less support when nurses are confronted with death.

Comparison of the results of this study with other studies show differences in the

responses of different groups of nurses. The most common form of nurse abuse in the workplace as reported by the home and community care nurses was verbal threats from the patient's family members and friends. In contrast, the most frequently reported form of nurse abuse was verbal threats from the patients themselves in a number of investigations (Corneil & Kirwan, 1994; Carroll & Morin, 1998; Federwisch, 2001; Lavack-Pambrun, 2000; & Powell, 1996). Family dynamics and the age of the clients that home and community care nurses are working with may play a significant role in the forms of abuse being different. Most of the clients that are seen are elders in the community who are seen as role models for the community and they may not be comfortable confronting a nurse and being verbally abusive in their position within the community. Family members and friends of the patient may not support this approach and take a more aggressive stance on behalf of their family member, which constitutes abuse of the nurse.

CISM debriefing was attended by a large percentage (66%) of the correctional nurses (Lavack-Pambrun, 2000). The home and community care nurses reported that 35% of them attended a formal group critical incident stress debriefing and only 17% of the ER/ICU nurses attended (Powell, 1996). Also, 48% of the home and community care nurses sought professional assistance for a stress-related health problem as compared with only 24% of the ER/ICU nurses (Powell, 1996).

Other stressors affecting nurses may contribute to the development of PTSD. Similar stressors identified by the nurses in this study were obtained by Powell (1996). These stressors were described by the ER/ICU nurses as serious illnesses in their families, death in their families, serious financial problems and serious injuries to family members.

## Conceptual Framework

The conceptual framework for this study identifies components of the stress and coping processes. Lazarus (1966) defined a critical incident as a threat which corresponds with the APA (1994) definition of a recognizable stressor. The primary and secondary appraisal stages of the stress process also link well with the APA (1994) diagnostic criteria for PTSD. In order to be diagnosed with PTSD, the person's response to the threat must be taken into consideration. The cognitive appraisals as described by Lazarus (1966) determine if there really is a threat to the individual and what mechanisms of coping could be utilized. This stage determines whether the individual develops PTSD or deploys coping mechanism to return to a normal level of functioning.

Factors that influence this stress process, as described by Lazarus (1966) were revealed in this study of home and community care nurses, which are consistent with previous research investigations (Corneil & Kirwan, 1994; Lavack-Pambrun, 2000; & Powell, 1996). These factors may be in the home or workplace environments. In the home environment, situations such as a serious illness or death involving a family member may decrease the individual's ability to cope effectively due to the severity of the situation. In the workplace, these factors that influence the stress process result in a high percentage of nurses, 45% (n=18), sustaining a workplace injury.

Family members of the patients are verbally abusive to the nurses which may challenge their ability to provide quality nursing care due to fear of confrontation with the family members. Working alone, which 55% of the home and community care nurses reported, is also a factor that influences whether a nurse develops PTSD (Green, 1998).

These influencing factors may prevent the home and community care nurse from being able to cope with the stress that is encountered in the work environment. According to Lazarus' (1966) theory, the inability to cope with this stress response or threat may lead the nurse to develop PTSD when the cognitive process and evaluation of the appraisals are utilized.

This thesis supported and extended Lazarus' (1966) theory of stress and coping as the theory provided concepts that were similar to the definition of a critical incident as reported by Manitoba nursing samples. Corneil and Kirwan (1994) described traumatic stress as commencing with a threat, or perceived threat, which mirrors Lazarus (1966). Dobbyn (1994) defines a critical incident utilizing the individual's response and coping skills, which are included in Lazarus' (1966) theory of stress and coping. Home and community care nurses identified that primary and secondary appraisal processes could be influenced by factors related to workplace and nursing practice issues. The inability to cope, which resulted in a stress response for the home and community care nurses was indicated by the 33% prevalence rate for PTSD found in the sample group.

## **Implications for Nursing**

### **Nursing Practice**

Nurses in practice environments can use the knowledge generated by this research to (1) increase their understanding of their experiences related to PTSD, (2) assist each other when stressful situations are encountered, and (3) promote policy development to recognize nurses affected by the disorder and address workplace safety issues. The results may also contribute to improved job satisfaction in the lives of the home and community care nurses in by linking nurses through the nursing portal on the internet or by joining an association, such as the Canadian Association of Rural and Remote Nursing (CARRN). This association's objectives include networking among rural and remote nurses, identifying continuing education opportunities and collaborating in policy development related to health issues (Canadian Nurses Association, 2005). Orientation sessions provided by employers for new nursing recruits should introduce health and workplace safety initiatives, and the topics of critical incidents and PTSD.

### **Nursing Administration**

This study provides information which has implications for nursing administration, policy development related to the reporting of critical incidents, and for personnel exposed to critical incidents. Policies to be developed or reviewed should include occurrence reporting, management of threats towards staff, appropriate staffing levels, home visiting hours, and leave coverage. Richardson (2001) suggests that a policy be in place to respond to nurses that are at risk for developing PTSD.

Administrators should support the CISM Program by participating in an orientation session about the program and by ensuring that all nurses are aware of the services available to them. They should also allow sufficient time for the nurses to have adequate interventions prior to having the nurses return to the workplace. Management must also ensure that all health and safety matters related to nurses' work environments are dealt with in an expedient manner to decrease the risk of violence in the workplace. This can be facilitated by being visible and accessible to the nurses to discuss critical incidents and coping resources. In an ideal situation, the First Nations communities would adopt a zero tolerance for violence policy which would be enforced through local leaders and policing services.

Labour management meetings are also an effective forum for discussing safety and security concerns. Management should meet on a regular basis with union representatives, or if the nurses are Band employed, with the local health authority and the nurses. Management should also consult with on-site nurses during the planning phase for the construction of a new facility to elicit input into whether the structure will provide a safe and secure work environment.

### **Nursing Education**

This study also provides information for nursing educators related to the importance for inclusion of information related to critical incidents in curriculum of schools of nursing and in-service education for nurses. Educational topics could include aggression management, violence in the workplace, diagnostic criteria and treatment options for PTSD, and threat and risk assessments. Caine and Ter-Bagdasarian (2003) suggest that education should focus on factors that prevent stress and promote coping for acute care nurses.

Cultural awareness courses should also be made available to nurses. This will assist the nurses in understanding the social and economic challenges faced by First Nations people, the historical significance of the Band that they are working with, local spirituality practices, and the conditions of First Nations people which directly affect their health and well-being.

Public awareness related to workplace violence, PTSD and critical incidents can be increased by creating posters for respectful and violence-free workplaces and homes that could be displayed in public buildings, such as the health centre, businesses, the recreation centre, and the band office in First Nations communities. Nurses may want to have a call in show on the local Band radio when the community members can ask questions related to the topic being discussed. This is an effective communication medium, especially in isolated communities as the residents receive their community news and events through this media outlet.

### **Nursing Research**

Further research in the area of critical incidents is required. There are still gaps in the literature related to the lack of longitudinal studies and the definition of the concept. Further research studying gender differences after exposure to critical incidents would expand the knowledge base around the complexities of critical incidents. There is also a need to study the meaning of a critical incident across cultures in nursing. Investigators could study the effectiveness of zero tolerance for violence policies in nursing workplaces, which include environments outside of the ER departments. The effectiveness of CISM interventions, which may include debriefing sessions should also be studied. Educational sessions related to incident reporting could be studied for information retention, information required to

complete the documentation and individual definitions of critical incidents. PTSD could be further investigated utilizing instruments that have been developed which relate to the DSM-IV diagnostic criteria and also investigations into the most recent treatment regimes to determine their effectiveness.

### **Conclusion**

In summary, the data collected in this study suggest that home and community care nurses are at risk for developing PTSD. This chapter discusses the similarities and differences identified in the data analysis of this study with previous research. Lazarus' (1966) conceptual framework related to stress and coping as it applied to this study was also discussed. Implications for nursing practice, administration, education and future research have been outlined. Further research is required to investigate effective strategies to prevent the development of PTSD in nurses.

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& Company.

# FIRST NATIONS & INUIT HOME & COMMUNITY CARE PROGRAM INCIDENT REPORT

Treaty Area /Region: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/200\_\_

Community: \_\_\_\_\_ Identification: (No Name) \_\_\_\_\_

Male Age: \_\_\_\_\_ Related Cause(s) \_\_\_\_\_

Female \_\_\_\_\_

Previous Incident  Yes  No When: \_\_\_\_\_

### Incident

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Suicide            | <input type="checkbox"/> Self-destructive behaviour <sup>7</sup> | <input type="checkbox"/> Environmental <sup>6</sup>                           |
| <input type="checkbox"/> Attempted Suicide  | <input type="checkbox"/> Violence                                | <input type="checkbox"/> Communicable Disease Outbreak <sup>2</sup> (specify) |
| <input type="checkbox"/> Needlestick Injury | <input type="checkbox"/> MVC <sup>3</sup>                        | <input type="checkbox"/> Damage to Property <sup>4</sup>                      |
| <input type="checkbox"/> Medication Error   | <input type="checkbox"/> Assault/Threats to Staff <sup>1</sup>   | <input type="checkbox"/> Substance Related                                    |
| <input type="checkbox"/> Alcohol Related    | <input type="checkbox"/> Drug Related                            | <input type="checkbox"/> Other <sup>5</sup> (specify)                         |
- Previous History<sup>8</sup>  Yes  No

Brief description of Incident: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### ACTION TAKEN TO DATE

### OTHER AGENCY CONTACTED<sup>10</sup> (specify)

- |   |  |
|---|--|
| <input type="checkbox"/> Physician Contacted        | <input type="checkbox"/> Medivac/Hospital        |
| <input type="checkbox"/> Health Director Notified   | <input type="checkbox"/> Tribal Council Notified |
| <input type="checkbox"/> CISM Notified <sup>9</sup> |  |

Comments/Implications/Prevention Measures<sup>12</sup> \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Prepared by<sup>11</sup>: \_\_\_\_\_ Date: \_\_\_\_//\_\_\_\_/20\_\_

Signature of Receipt: \_\_\_\_\_ Date: \_\_\_\_//\_\_\_\_/20\_\_

Signature of Receipt: \_\_\_\_\_ Date: \_\_\_\_//\_\_\_\_/20\_\_

## Nursing Questionnaire

Please read through the entire questionnaire and circle your response to each question or fill in the required information where requested. Please print or write legibly. Do not put your name on the questionnaire.

1. What is your current living arrangement?
 

Married and living with spouse .....	1
Separated.....	2
Divorced.....	3
Widowed.....	4
Single.....	5
Common-Law.....	6
  
2. Do you identify yourself as an Aboriginal person?..... Yes No
  
3. Have you ever been divorced or separated?..... Yes No
  
4. What is the highest level of post secondary education you have completed?
 

Hospital Nursing Program.....	1
Community College Nrsg Program.....	2
Some university/ college.....	3
University graduate BN.....	4
Masters Degree.....	5
Doctorate .....	6
  
5. Are you a Registered Nurse? ..... Yes No  
 OR  
 a Licenced Practical Nurse? ..... Yes No
  
6. Do you work primarily in the Home & Community Care Program  
 in a First Nations Community?
 

Yes.....	1
No.....	0
  
7. Your present employment status?
 

Tribal Council Full-time.....	1
Tribal Council Part-time or Relief.....	2
First Nations Band Full-time.....	3
First Nations Band Part-Time or Relief.....	4
First Nations and Inuit Health Branch.....	5
First Nations and Inuit Health Branch.....	6
  
8. How many years have you worked as a nurse? \_\_\_\_\_

9. How long have you worked for the Home & Community Care Program?

- Less than 3 months.....1
- 3 to 12 months.....2
- 12 to 24 months.....3
- more than 24 months.....4

10. The population size of the community you are presently working in:

- 0-300.....1
- 301-800.....2
- 801-2,000.....3
- 2,001-5,000.....4
- 5,000 +.....5

11. Have you ever been injured on duty while working as a nurse? Yes No

Have you been injured more than once? \_\_\_\_\_ times

Have you ever been off the job for more than one week due to injury? Yes No

Was this/these injury/injuries due to:

- a back injury Yes No
- a needlestick injury Yes No
- a sprain Yes No
- a laceration Yes No
- other: \_\_\_\_\_ Yes No

Do you still have problems due to this/these injury/injuries? Yes No

12. Have you ever been subjected to verbal threats of physical harm by:

- Patients Yes No
- Patient's family members/friends Yes No
- Doctors Yes No
- Nurses Yes No
- Other: \_\_\_\_\_ Yes No

13. Have you ever been subjected to attempts of physical harm by:

- Patients Yes No
- Patient's family members/friends Yes No
- Doctors Yes No
- Nurses Yes No
- Other: \_\_\_\_\_ Yes No

14. Have you ever been subjected to actual physical attacks by:
- |                                  |     |    |
|----------------------------------|-----|----|
| Patients                         | Yes | No |
| Patient's family members/friends | Yes | No |
| Doctors                          | Yes | No |
| Nurses                           | Yes | No |
| Other: _____                     | Yes | No |
15. Have you ever required medical attention for physical injuries from attacks by:
- |                                  |     |    |
|----------------------------------|-----|----|
| Patients                         | Yes | No |
| Patient's family members/friends | Yes | No |
| Doctors                          | Yes | No |
| Nurses                           | Yes | No |
| Other: _____                     | Yes | No |
16. Do you smoke cigarettes? Yes No  
 If yes, how many cigarettes do you smoke per day? \_\_\_\_\_
17. Do you drink alcohol? Yes No  
 If yes, how many drinks would you have in a week? \_\_\_\_\_
18. Do you exercise regularly? Yes No  
 If yes, how often do you workout for more than 30 minutes in the average week \_\_\_\_\_times
19. Would you consider yourself overweight? Yes No
20. Do you most often work alone (not with other nurses)? Yes No
21. On the average, how often would you socialize with other nurses outside of work?
- |                               |   |
|-------------------------------|---|
| Never .....                   | 0 |
| 1 to 2 times a week.....      | 1 |
| 3 to 4 times a week.....      | 2 |
| More than 5 times a week..... | 3 |
22. Do you participate in any recreational activities with other nurses outside of work?
- |                |   |
|----------------|---|
| Never.....     | 0 |
| Rarely.....    | 1 |
| Sometimes..... | 2 |
| Often.....     | 3 |
23. Do you participate in recreational activities or socialize with other health care workers outside of work? Yes No

24. In the past year have any of the following major events occurred in your personal/family life:

- A death in your immediate family? Yes No
- A serious injury in your immediate family? Yes No
- A serious illness in your immediate family? Yes No
- A major financial problem? Yes No

25. Have you ever sought professional assistance for a stress-related health problem?

Yes No

If yes, who did you contact? (Check as many as are applicable)

- Family physician..... \_\_\_\_\_
- Clergy ..... \_\_\_\_\_
- Social Worker..... \_\_\_\_\_
- Psychologist..... \_\_\_\_\_
- Other (Please Specify)..... \_\_\_\_\_

26. Have you ever participated in a Formal Group Critical Incident Stress Debriefing?

Yes No

Think back over the past year at work. Do you recall any event at work that caused you, a professional nurse, significant stress?

Yes No

If yes, please complete the following questions:

When did the event occur? (Month) \_\_\_\_\_

Where did the event occur? \_\_\_\_\_

\_\_\_\_\_

Please give a brief description of the event \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If there is more than one event, please repeat the above data/information for each event.



**Impact of Events Scale:**  
An Assessment of Post Traumatic Stress in Older Adults

Below is a list of comments made by people after stressful life events. Please check each item, indicating how frequently these comments were true for you *DURING THE PAST MONTH*. If they did not occur during that time, please mark the "not at all" column.

THE INSTRUMENT:

Question		Response			
		Not At All (Score 0)	Rarely (Score 1)	Sometimes (Score 3)	Often (Score 5)
1.	I thought about it when I didn't mean to.				
2.	I avoided letting myself get upset when I thought about it or was reminded about it.				
3.	I tried to remove it from memory.				
4.	I had trouble falling asleep or staying asleep because of pictures or thoughts about it that came to my mind.				
5.	I had waves of strong feelings about it.				
6.	I had dreams about it.				
7.	I stayed away from reminders about it.				
8.	I felt as if it hadn't happened or was unreal.				
9.	I tried not to talk about it.				
10.	Pictures about it popped into my mind.				
11.	Other things kept making me think about it.				
12.	I was aware that I still had a lot of feelings about it, but I didn't deal with them.				
13.	I tried not to think about it.				
14.	Any reminder brought back feelings about it.				
15.	My feelings about it were kind of numb.				

Brief Symptom Inventory

“For reasons of test security and validity,  
reproduction of the test items was not permitted by the publisher  
and that in Canada,  
qualified professionals may acquire the BSI test from MultiHealth Systems”.

Brief Symptom Inventory

Worksheet

“For reasons of test security and validity,  
reproduction of the test items was not permitted by the publisher  
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Brief Symptom Inventory

Profile Sheet

“For reasons of test security and validity,  
reproduction of the test items was not permitted by the publisher  
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## Burge (1988) PTSD Scale Using Items from the BSI &amp; IES

DSM IIIR PTSD Diagnostic Criteria	Items from the BSI & IES
A. Recognizable Stressor	Exposure as defined
B. Re-experiencing the Trauma (at least one of these symptoms)	
B1. Recurrent/intrusive images	IES-1 Intrusive thoughts IES-10 Intrusive images
B2. Recurrent dreams	IES-6 Had dreams about it
B3. Sudden acting/feeling like it is recurring	IES-5 Waves of emotion
B4. Distress at exposure to events resembling trauma	IES-11 Things trigger it IES-14 Reminders brought back feelings about it.
C. Avoidance of Stimuli (at least three of these symptoms)	
C1. Avoid thoughts/feelings	IES-9 Not talk about it IES-13 Tried not to think about it IES-2 Avoid upsets IES-12 Not deal with feelings
C2. Avoid activities	IES-7 Stayed away from reminders BSI-31 Avoiding things, places, activities
C3. Inability to recall details	IES-8 Felt like it hadn't happened IES-3 Removed from memory
C4. Lowered interest in significant activities	BSI-18 No interest in things
C5. Feeling detached/estranged	BSI-44 Not feeling close to others BSI-14 Feeling lonely

C6. Restricted affect	IES-15 Feelings were numb	137
C7. Sense of foreshortened future	BSI-35 Feeling hopeless about future BSI-39 Thoughts of Dying BSI-16 Feeling lonely BSI-17 Feeling blue BSI-9 Thoughts of ending life BSI-50 Feeling worthlessness	
D. Other symptoms (at least two of these symptoms)		
D1. Sleep disturbances	IES-4 Trouble sleeping BSI-25 Trouble sleeping	
D2. Irritability/Outbursts of anger	BSI- 6 Easily annoyed BSI-13 Uncontrollable temper BSI-40 Urge to harm others BSI-41 Urge to smash things BSI-46 Frequent arguments	
D3. Memory loss or trouble concentrating	BSI-5 Trouble remembering BSI-15 Work seems blocked BSI-26 Double checking BSI-27 Trouble deciding BSI-32 Mind going blank BSI-36 Lack of concentration	
D4. Hypervigilance	BSI-1 Nervous or shaky BSI-19 Feeling fearful BSI-38 Feeling tense BSI-49 Feeling restless	
D5. Startle response	BSI-12 Suddenly scared BSI-45 Spells of panic	
D6. Physiological reactivity to reminders	BSI-2 Faintness/dizziness BSI-7 Chest/heart pains BSI-23 Nausea/GI upset BSI-29 Trouble breathing BSI-30 Hot/cold spells BSI-33 Numbness/tingling BSI-37 Feeling weak	



## Appendix H

Helen Glass Centre for Nursing  
Winnipeg, Manitoba 138  
Canada R3T 2N2  
Telephone (204) 474-7452  
Fax (204) 474-7682

UNIVERSITY  
OF MANITOBA

### Cover Letter for Study Participants Faculty of Nursing

University of Manitoba  
Faculty of Nursing  
89 Curry Place  
Winnipeg, Manitoba  
R3T 2N2

August 7, 2006

Post-Traumatic Stress Disorder (PTSD) among Home and Community Care Nurses Working in First Nations Communities in Alberta and Saskatchewan: A Replication Study

Dear Study Participant:

My name is Debi Matias. I am currently enrolled in the Master of Nursing Program at the University of Manitoba. A portion of the course requirements is a research study to complete a thesis for the program. I have chosen to replicate studies previously investigating PTSD in Manitoba outpost, hospital and health centre nurses by Wayne Corneil and Sharon Kirwan in 1994, Patricia Powell who studied Manitoba ER and ICU nurses in 1996 and Solange Lavack-Pambrun who studied correctional nurses in 2000.

The purpose of this study is to determine the prevalence of PTSD among home and community care nurses working in Alberta and Saskatchewan First Nations communities. The investigations will also determine these nurses' knowledge of what constitutes a critical incident and will identify what has been the most stressful situation they have encountered in the workplace. This questionnaire is being mailed to all home and community care nurses working in the Home and Community Care Program in First Nations communities in Alberta, by the Regional Home and Community Care Coordinator, and to four tribal council areas in Saskatchewan by the Nurse Managers. I do not have access to your name or work address.

To assist me with this study, I am requesting approximately 30-60 minutes of your time. Participation in this study is voluntary and anonymous. Any information shared will be changed so that individual responses cannot be identified. Your employer will not know if you have participated. All participants will receive follow-up reminders at one week, two week and four week intervals. If you have returned the questionnaire, please disregard these notices. The results will be shared with home and community care nurses at a national meeting and First Nations and Inuit Health Branch nurses. I plan to present the research findings at national and international conferences. I also plan to publish an article in a journal.

Consent to participate will be inferred if you complete the questionnaire and return it in the self addressed stamped envelope provided. In no way does this waive your legal rights nor release the researcher or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time by not replying, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence.

All returned questionnaires, will be received through a member of my thesis committee, Mark Sagan, who will destroy the envelope before forwarding the questionnaire to me. All questionnaires will be stored in a file cabinet in my locked office and retained for seven years. The group data gathered and analyzed will only be accessed by myself, Dr. Janet Beaton (Thesis Chair, University of Manitoba, Faculty of Nursing), Dr. Diana McMillan (Internal Committee Member, University of Manitoba, Faculty of Nursing), Mr. Mark Sagan ( Manager, Health Surveillance And Analysis Unit, First Nations and Inuit Health Branch).

This research has been approved by the Education/Nursing Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact Dr. Janet Beaton, Thesis Chair at 474 - 8175 or the Human Ethics Secretariat at 474-7122 or e-mail

The risks of participating in a survey are minimal. You may experience some level of anxiety when you are asked to recall unpleasant events. If you find that your participation in completing the questionnaire triggers past stressful situations, please feel free to contact the Critical Incident Stress Management team at Occupational Health toll free at 1-800-268-7708. The benefit of your participation is that this is your opportunity as a nurse working in this program to share your experiences and create a voice for home and community care nurses.

Thank you very much for your participation.

Yours truly,

Debi Matias  
R.N., BScN

-----Tear Off Here-----

Complete and return this section only if you want a copy of the summary of the results sent to you upon completion.

Contact Information:

Address or E-Mail \_\_\_\_\_  
\_\_\_\_\_



UNIVERSITY  
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Appendix I

Reminder Letter for Study Participants  
Faculty of Nursing

Helen Glass Centre for Nursing  
Winnipeg, Manitoba 140  
Canada R3T 2N2  
Telephone (204) 474-7452  
Fax (204) 474-7682

University of Manitoba  
Faculty of Nursing  
89 Curry Place  
Winnipeg, Manitoba  
R3T 2N2

September 4, 2006

Post-Traumatic Stress Disorder (PTSD) among Home and Community Care Nurses  
Working in First Nations Communities in Alberta and Saskatchewan: A Replication Study

Reminder Letter

Dear Study Participant:

I hope that you have received the questionnaire in the mail, requesting your participation in the nursing research project to determine the prevalence of Post-Traumatic Stress Disorder Among Home and Community Care Nurses Working in Alberta and Saskatchewan First Nations Communities.

If you have completed the questionnaire and returned it, thank you. If you have not and would like to participate, please complete the questionnaire and return it in the envelope provided. Questionnaires will be accepted until September 22, 2006 for inclusion in the study. If you did not receive a questionnaire, please contact Mark Sagan at

Thank you for your consideration of this request.

Yours truly,

Debi Matias  
R.N., BScN



UNIVERSITY  
OF MANITOBA

OFFICE OF RESEARCH  
SERVICES

Office of the Vice-President (Research)

244 Engineering Bldg.  
Winnipeg, MB R3T 5V6  
Telephone: (204) 474-8418  
Fax: (204) 261-0325  
www.umanitoba.ca/research

**APPROVAL CERTIFICATE**

11 April 2006

**TO:** Debi Matias (Advisor J. Beaton)  
Principal Investigator

**FROM:** Stan Straw, Chair  
Education/Nursing Research Ethics Board (ENREB)

**Re:** Protocol #E2006:026  
"The Prevalence of Post-Traumatic Stress Disorder among Home  
and Community Care Nurses Working in Manitoba First Nations  
Communities"

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Please be advised that your above-referenced protocol has received human ethics approval by the **Education/Nursing Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

**Please note:**

- if you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to Kathryn Bartmanovich, Research Grants & Contract Services (fax 261-0325), including the Sponsor name, before your account can be opened.
- if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.



Appendix K

UNIVERSITY  
OF MANITOBA

OFFICE OF RESEARCH  
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Office of the Vice-President (Research)

CTC Building  
208 - 194 Dafoe Road  
Winnipeg, MB R3T 2N2  
Fax (204) 269-7173 142  
[www.umanitoba.ca/research](http://www.umanitoba.ca/research)

**AMENDMENT APPROVAL**

28 July 2006

**TO: Debi Matias**  
Principal Investigator

**FROM: Stan Straw, Chair**  
Education/Nursing Research Ethics Board (ENREB)

**Re: Protocol #E2006:026**  
**"The Prevalence of Post-Traumatic Stress Disorder among Home  
and Community Care Nurses Working in Manitoba First Nations  
Communities"**

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This will acknowledge your e-mail dated July 27, 2006 requesting amendment to the above-noted protocol.

Approval is given for this amendment. Any further changes to the protocol must be reported to the Human Ethics Secretariat in advance of implementation.



Health Santé  
Canada Canada

First Nations and Inuit  
Health Branch  
Suite 300  
391 York Avenue  
Winnipeg, Manitoba  
R3C 4W1

Appendix L

Your file

Votre référence

Our file

Notre référence

16 March 2006

Ms. Debi Matias  
A/Regional Nursing Officer  
First Nations and Inuit Health Branch  
300-391 York Ave  
Winnipeg, MB  
R3C 4W1

Dear Ms. Matias:

I am in receipt of your letter 6 March 2006, in which you request permission to conduct a study on nurses working in the Home and Community Care Program.

In discussion with the Regional Director, we support your research activity, and look forward to you sharing your findings. We are concerned about the role of the Administrative Assistant in the mailing/returning of the surveys and reminder letters. At this time, the Branch is not able to support this activity.

On behalf of the Nursing Directorate and the Regional Director, I support this research, and look forward to its applicability in ensuring a safe working environment for nurses in the Home and Community Care Program.

Yours truly,

Pamela Seitz  
Director of Nursing  
Manitoba Region