Identifying Mental Health Indices Among Indigenous and Non-Indigenous Treaty Three Police Service Officers

By

Emily Tella [a], Honours Bachelor of Kinesiology

Master of Science, Final Thesis Document

Committee

Supervisor: Dr. Kathryn Sinden [a]

Committee Members: Dr. Erin Pearson [a], Dr. Joy MacDermid [b], Ms. Molly Acton [c]

[a] School of Kinesiology, Lakehead University, Thunder Bay, Canada.

[b] School of Physical Therapy, Western University, Canada.

[c] Research Analyst, Ontario Provincial Police, Canada.

A thesis

presented to Lakehead University

in partial fulfilment of the

thesis requirement for the degree of

Master of Science in Kinesiology

Thunder Bay, Ontario, Canada, 2023

Acknowledgements

I would like to send my utmost appreciation to my supervisor, Dr. Kathryn Sinden for her constant support and guidance throughout my academic journey, including my Bachelor and Master's degree. You have introduced and welcomed me to countless opportunities within the research world, specifically occupational health and safety. In turn, I have developed a passion for the field and have built upon my research skills immeasurably. We have developed a close relationship throughout my years at Lakehead University, and I am so grateful for the countless hours you spent mentoring me. You helped me become the researcher I am today, and have always provided me with necessary guidance. You have also improved my critical thinking skills and work ethic, which I will forever be grateful for. I feel very lucky to have been supervised by such a smart, kind, and dedicated individual, who I am proud to call a mentor, role model, and friend. You are someone I will always look up to and lean on for guidance and support within my future academic endeavours and career.

I would like to also acknowledge and thank my committee members, Dr. Erin Pearson, Dr. Joy MacDermid, and Ms. Molly Acton for taking the time to provide me with invaluable feedback and support. Your combined expertise, and complex knowledgebase surrounding this research project has been integral to its completion and success.

Furthermore, this thesis would not be possible without contribution and participation from Treaty Three Police Service. I would like to especially thank Sergeant Major Tricia Rupert, and Sergeant Major Cheryl Gervais for their ongoing support, assistance and involvement throughout the research process.

I would like to thank and acknowledge my friends and fellow students within the Masters of Science program for always being available, and providing support throughout this degree. Having people to lean on and listen while navigating the research process has made completing my thesis that much easier. I would also like to thank my family for their unconditional love and support throughout my academic journey, they have always shown me the importance of hard work and perseverance.

Lastly, I would like to acknowledge and thank the Centre for Research in Occupational Safety and Health (CROSH) for funding this project through the *Seed Research Grant in Occupational Health and Safety.*

Abstract

Background: Police officers are essential frontline workers tasked with protecting our communities. They are susceptible to adverse mental health exposures, outcomes, and barriers to accessing supports, which may increase their risk of developing mental health problems. In Canada, police officers serve communities municipally, provincially, and federally. In Northwestern Ontario (NWO) self-administered, Indigenous police services are employed to service Northern communities (i.e., Treaty Three Police Service: T3PS). The confluence of contextual factors that exist in Northern communities may contribute to differential exposures that may result in heightened mental illness among these officers. ***Research Purpose and Objectives:*** The overarching purpose that guided this study was to identify mental health exposures, adverse mental health outcomes, and barriers to accessing mental health supports among Indigenous and non-Indigenous T3PS officers. Collectively, for the purpose of this study, these indices encapsulate the term "mental health status." The study purpose was guided by two research objectives including to: (1) determine the mental health status of T3PS officers, and (2) identify the barriers to accessing mental health supports; as experienced by these officers. ***Methodology:*** To determine T3PS officers' mental health status, a battery of questionnaires were administered including: the Critical Incident History Questionnaire for Police Officers (CIHQ), the Brief Trauma Questionnaire (BTQ), and the Post-Traumatic Stress Disorder Checklist from the Diagnostic and Statistical Manual of Mental Health Disorders, 5th Edition (PCL-5). To address the second study objective**,** the Self Stigma of Seeking Help Scale (SSOSH scale) was administered. ***Results:*** T3PS officers were exposed to work-related (*Median*= 120; Interquartile Range= 160.75) and non-work-related (*Md*=3; IQR=3) mental health exposures. When assessing descriptive data for Indigeneity, non-Indigenous T3PS officers experienced higher overall

critical incident (CI) exposures (*Md*=165; IQR=188.5), in comparison to Indigenous T3PS officers (*Md*=129; IQR=233.5). In addition, Indigenous T3PS officers experienced higher non-work-related trauma exposure (*Md*= 4; IQR=3) and PTSD risk (*Md*=29; IQR=54) in comparison to non-Indigenous officers' non-work-related trauma exposure (*Md*= 3; IQR=3) and PTSD risk (*Md*=13; IQR=42). When assessing self-stigma associated with seeking help, officers reported an median score of *disagree* (*Md*= 2.9; IQR=0.33) indicating that they would not experience stigma when seeking mental health supports. Both Indigenous and non-Indigenous T3PS officers reported the highest frequency of CI exposure for experiencing a "*sexually assaulted adult,*" with Indigenous officers experiencing the CI a median of 15 more times. Additionally, 40% of Indigenous T3PS officers responded *yes* when asked "*has anyone ever made or pressured you into having some type of unwanted sexual contact*?" in comparison to 7% of non-Indigenous officers. ***Discussion:*** The high exposure of work-related and non-work-related sexual assault experienced by Indigenous officers may have severe implications on their work performance and mental health, paralleling literature on Indigenous mental health (Allen, 2020; Bryant-Davis, 2007; Canadian Mental Health Association, 2009). Additionally, repeated exposures to traumatic events likely have an impact on the high risk of PTSD seen among Indigenous T3PS officers. Future research is needed to confirm this. **Conclusion:** Indigenous and non-Indigenous T3PS officers experience high rates of mental health exposures and adverse mental health outcomes, with Indigenous T3PS officers experiencing higher work-related and non-work-related sexual assault exposure. Exposures experienced by Indigenous T3PS officers have likely been impacted by historical and ongoing colonialism coupled with systemic racism (National Centre for Truth and Reconciliation, 2015). Lastly, the high incidence rate of Indigenous officers who have been victims of sexual assault likely impacts their work performance, mental health, and risk of

developing PTSD. Study findings identified T3PS officers' current mental health status specific to trauma, and barriers to accessing mental health support. The study findings will inform the development of evidence-informed practices and programming to support mental health disorder reduction and prevention specific to Indigenous and non-Indigenous officers working in rural NWO.

Table of Contents

Keywords: Mental health**,** police officer, Indigenous, Northwestern Ontario

Key Definitions:

Indigenous: An Indigenous group refers to whether the person is First Nations (North American Indian), Métis and / or Inuk (Inuit). A person may also be included in more than one of these groups (Statistics Canada, 2021).

Northwestern Ontario: A secondary region of Northern Ontario in the Canadian province of Ontario that is north and west of Lake Superior and west of Hudson Bay and James Bay. It includes most of subarctic Ontario, and consists of Kenora, Rainy River and Thunder Bay districts (Beshiri & Hofmann, 2001).

Urban north: A community, town, or municipality that is located in an urbanized area that houses 10,000 or more inhabitants (Beshiri & Hofmann, 2001).

Rural north: Small communities, towns or municipalities that are outside of the commuting zone of a larger urban centre with 10,000 plus within the population (Beshiri & Hofmann, 2001).

Mental Health: A state where an individual has a balance of physical, mental, and social well-being within their life. Mental health includes one's ability to cope with the normal stressors of life, manage work, and achieve self-determined goals (World Health Organization of Canada, 2013).

Mental Health Status: A comprehensive description, statement, or understanding of an individual's overall mental health at the time in which it is being measured. For the purpose of this research study, the mental health status of Treaty Three Police Service officers was assessed by quantifying mental health exposures through the brief trauma questionnaire and critical incident history questionnaire for police officers.

Post-Traumatic Stress Disorder: Post-traumatic stress disorder (PTSD) is a common psychiatric disorder that occurs in individuals who have witnessed or experienced a traumatic event such as a natural disaster, accident, terrorist act, combat fighting, rape, or those who have been threatened with death, sexual violence, or serious injury (American Psychiatric Association, 2022). Individuals with PTSD have intense and often disturbing thoughts and feeling associated with their experience, lasting long after the initial traumatic event. Individuals may relive the event through flashbacks or nightmares, they may also feel sadness, anger, detachment, or estranged from others (American Psychiatric Association, 2022). For the purpose of this research study, Post-Traumatic Stress Disorder was quantified through the PTSD Checklist within the DSM-5.

Self-stigma**:** The reduction in a person's self-esteem or sense of self-worth due to the perception held by the individual they are socially unacceptable (Vogel, Wade & Hackler, 2007). For the purpose of this research study, self-stigma was evaluated through the self-stigma of seeking help scale.

List of Abbreviations:

CI	Critical incident
CIHQ	Critical Incident History Questionnaire for Police Officers
DSM-5	Diagnostic and Statistical Manual of Mental Disorders (5th edition)
iKT	Integrative knowledge translation
KT	Knowledge translation
KTA	Knowledge-to-action
MAHKWA	Mentor and Helping Kids with Adversity program
NWO	Northwestern Ontario
NWMP	North-West Mounted Police
OFNPA	Ontario First Nation Policy Agreement
PCL-5	Post-Traumatic Stress Disorder Checklist from the DSM-5
PTSI	Post-Traumatic Stress Incidence
PTSD	Post- Traumatic Stress Disorder
RCMP	Royal Canadian Mounted Police
OPP	Ontario Provincial Police
T3PS	Treaty Three Police Service

CHAPTER 1: RESEARCH CONTEXT

This research project examined mental health and potential barriers to accessing mental health supports experienced by Indigenous and non-Indigenous T3PS officers working in Kenora, Ontario; Couchiching First Nation, Ontario; and Eagle Lake Indian Reserve no.27, Ontario. Currently, there are 49 active-duty officers employed at T3PS' Kenora jurisdiction; 19 active duty officers employed at T3PS' Couchiching First Nation jurisdiction; and 8 active-duty officers employed at T4PS' Eagle Lake Indian Reserve no.27 jurisdiction. In addition to this, T3PS' Kenora jurisdiction serve approximately 3,013 residents; T3PS' Couchiching First Nation jurisdiction serve approximately 810 residents; and T3PS' Eagle Lake Indian Reserve no.27 jurisdiction serve approximately 224 residents (Statistics Canada, 2021a). In addition, there is currently 8 Indigenous and 16 non-Indigenous members working at T3PS; as well as 23 non-Indigenous and 63 Indigenous male members working at T3PS. In terms of urban policing, the Ontario Provincial Police (OPP) currently have 108 active-duty officers employed at their Kenora jurisdiction (Ontario Provincial Police, 2019).

The mental health status of T3PS officers was assessed by quantifying mental health exposures (work-related critical incidence exposure, and non-work-related brief trauma exposure), and adverse mental health outcomes (post-traumatic stress disorder). Potential barriers to accessing mental health supports were determined by assessing self-stigma associated with seeking help. A partnership with knowledge users at T3PS was developed one year prior to research development, to facilitate collaboration and ensure applicability of findings. Inspector Cheryl Gervais and Inspector Tricia Rupert from T3PS were the knowledge users who assisted with the development of this research study; they identified priorities and key areas to consider when studying the mental health facets of this unique NWO police population. These areas were

then further developed by the student researcher alongside the research team to establish culturally sensitive practices to use when conducting research with Indigenous and non-Indigenous populations.

Chapter 2: LITERATURE REVIEW

2.1 Mental Health Overview

The Government of Canada (2020) defines mental health as a state where an individual has a balance of physical, mental, and social well-being within their life. Mental health includes one's ability to cope with the normal stressors of life, manage work, and achieve self-determined goals (World Health Organization of Canada, 2013). Furthermore, mental health helps determine how individuals handle stress, relate to others, and make choices (Centre for Disease and Control Prevention, 2021). Although the terms are used interchangeably, mental health and mental illness are not the same, as an individual can experience poor mental health and not be diagnosed with a mental illness (Centre for Disease and Control Prevention, 2021). Mental and physical health are equally important components of overall health as they can impact one another. For example, chronic physical conditions may increase one's risk of developing a mental illness the same way that having a mental illness can increase one's risk of developing a chronic condition (Centre for Disease Control and Prevention, 2021; Moussavi et al., 2007). In the context of policing, law enforcement is an occupation deeply rooted in exposure to trauma and stress, which has been linked to several physical and mental health problems among police officers (Soomro & Yanos, 2018).

2.2 Mental Health Amongst Police Populations

In Ontario, suicide rates of police personnel are high, and officers have been found to have higher rates of mental health disorders in comparison to the general public (Milliard, 2020).

Police officers are routinely exposed to a wide variety of traumatic events in the workplace - referred to as Critical Incidents (CIs); as a part of their daily job. Critical incident exposures are typically experienced by police officers within their first year of service, with a yearly incidence of exposure thereafter, ranging from 46% to 92% (Wagner et al., 2020). Critical incidence exposure is associated with an elevated risk of developing post-traumatic stress disorder (PTSD; Wagner et al., 2020). In fact, police officers' susceptibility to PTSD is four times higher than the general population (Bell & Eski, 2015). Police officers serving NWO communities experience a unique context that may impact their mental health in a way that differs from police officers serving larger urban centers (Canadian Mental Health Association, 2009). Although the prevalence of mental illness among police populations has been well documented (Allen, 2020; Bell & Eski, 2016; Matheson et al., 2005), understanding potential mental health exposures (i.e., CI exposure) and adverse mental health outcomes (i.e., PTSD) experienced by Indigenous and non-Indigenous police officers serving NWO has not been documented. Identifying exposures and subsequent impacts on Indigenous and non-Indigenous police officers serving rural NWO communities will enable the development of strategies to support police mental health, which are responsive to this specific workforce. Indigenous and non-Indigenous views are both important when exploring the mental health of rural NWO, as they comprise the majority of officers serving these communities (Treaty Three Police Services, 2017). Additionally, Indigenous and non-Indigenous officers may be impacted by trauma exposure differently because of their historical background, cultural beliefs, traditions, and practices (Aguiar & Halseth, 2015; Hill & Coady, 2003).

2.2.1 Critical Incident Exposure

Critical incidents are work-related trauma experiences that first responders are commonly exposed to, which may adversely impact their mental health (Wagner et al., 2020). Examples of CIs police officers are exposed to include being seriously injured accidently and / or intentionally, having their life threatened, being exposed to life-threatening diseases, or making a mistake that led to the serious injury or death of an officer or bystander (Weiss et al., 2010). Critical incident exposures can cause emotional, psychological, and physiological stress, which can also increase an individual's risk of developing PTSD (Harris et al., 2002). Furthermore, mental health disorders are often related to trauma exposure (e.g., a CI). Traumatic events may include exposure to the following: calls that result in excessive media attention, injury or death to children, personal loss or injury, mission failure, human error, and other traumatic stimuli (Harris et al., 2002). Critical incident exposures may impact a police officer's physical, emotional, behavioural, and/or psychological ability to successfully/appropriately perform their job tasks (Wagner et al., 2020). Therefore, CI exposure is important to consider when assessing the mental health status of police officers.

2.2.2 Post-Traumatic Stress Incidence and Exposure

Police officers encounter repeated exposure to extremely traumatic / life-threatening events (CIs) that are potentially threatening to their mental and physical integrity (Martin et al., 2009). Post-traumatic stress injury (PTSI) is a biological injury that can occur after an individual experiences a CI, whereas PTSD is a mental health condition that can develop after someone experiences or witnesses a CI. Both PTSIs and PTSD can develop following physical injuries that are extensive and traumatic to the individual. Moreover, PTSI and PTSD present similar symptoms, with the main difference being the conceptualization of what caused the symptoms

(PTSD is a mental health disorder, whereas PTSI is a biological injury; American Psychological Association, 2020).

2.2.2 (a) PTSD symptoms and risk factors

Post-traumatic stress disorder typically occurs in individuals who have witnessed or experienced a traumatic event such as a natural disaster, serious accident, sexual violence, or serious injury (APA, 2020). In most cases, individuals diagnosed with PTSD have intense and disturbing thoughts / feelings related to the CI that last long after the event is over (APA, 2020). To be diagnosed with PTSD, an individual must be exposed to a stressful and/or traumatic event where their response is fear, helplessness, or horror (APA, 2020; Yehuda, 2002). Individuals must also have three distinct types of symptoms. The first symptom is *re-experiencing* the event, which occurs through unwanted recollections of the incident through distressing images, nightmares, or flashbacks (APA, 2020; Yehuda, 2002). The second symptom is *avoiding* reminders of the event, which occurs through attempting to avoid reminders of the event, including persons, places, or thoughts associated with the incident (APA, 2020; Yehuda, 2002). The third symptom is *hyperarousal* for a minimum of one month, which occurs through physiological manifestations, including insomnia, irritability, impaired concentration, hypervigilance, and increased startle reactions (APA, 2020; Yehuda, 2002). Post-traumatic stress disorder symptoms can also be non-specific and include heart palpitations, shortness of breath, tremors, nausea, insomnia, unidentifiable pain, mood swings, reluctance to undergo certain examinations, or nonadherence to treatment which can manifest into avoidance (Yehuda, 2002).

Compared to other occupations, police officers are at a higher risk of developing PTSD because of the various on-duty CI exposures, which can lead to job dissatisfaction, negative thoughts, and lack of social supports (Skogstad et al., 2013). Furthermore, equipment

malfunction, confusing job tasks, dysfunctional relationships with colleagues, and discrimination may increase PTSD prevalence. Police officers diagnosed with PTSD are also more likely to develop other mental health disorders and experience adverse mental health (Skogstad et al., 2013). Risk factors for PTSD symptoms vary depending on the severity of the traumatic event, including the degree of incident exposure (Martin et al., 2009). When police officers employ avoidance or passive strategies to cope following a traumatic event, they are more likely to experience higher PTSD symptomology (Pole et al., 2005). Furthermore, the impact and assistance that police organizations and external support systems provide following CI exposure may also have an impact on PTSD risk factors (Pole et al., 2005).

2.2.2 (b) PTSD protective factors

A protective factor refers to anything that prevents or reduces vulnerability for the development of a disorder. Common factors include the availability of social supports and the use of healthy coping strategies in response to CI exposure (Martin et al., 2009). Prior training and experience have also been established as protective factors for PTSD development (Martin et al., 2009). Police officers who receive greater satisfaction with support, greater perceived social support, and greater emotional support from co-workers and supervisors typically experience less PTSD symptoms (Pole et al., 2005). Additional protective factors found to promote resiliency and PTSD recovery include good problem-solving skills, helping others, seeking help, and finding positive meaning in the trauma (Martin et al., 2009).

2.2.2 (c) PTSD within the Context of Northwestern Ontario and Indigenous Policing

It should be noted that assessing PTSD alone does not capture all disorders associated with adverse mental health. In terms of Indigenous policing, assessing the risk of PTSD alone to identify overall mental health can be considered inadequate due to intergenerational trauma and

other CIs more commonly experienced by Indigenous peoples and officers (Bryant-Davis, 2007). Furthermore, PTSD can be considered narrow given the background of Indigenous peoples, as it disregards the severity of stressors commonly experienced, including sexual harassment, partner / spousal abuse, and racial incidents (Bryant-Davis, 2007). Therefore, though it is important to understand PTSD manifestation within the context of policing, it is equally important to consider other mental health exposures, such as non-work-related brief trauma exposure and work-related CI exposure as it may better align with the experiences of Indigenous officers. Furthermore, understanding a variety of experiences in broader conditions may better capture the complex, cumulative trauma experienced by Indigenous police officers (Bryant-Davis, 2007). Police officers serving primarily rural Indigenous communities, experience additional exposures that are considered routine aspects of the job (i.e., sexual and physical abuse) which may increase their risk of CI exposure and PTSD. To better understand work-related and non-work-related exposures, as well as PTSD risk among Indigenous and non-Indigenous T3PS police officers, it is important to first understand what policing in NWO looks like.

3.1 Policing in Northwestern Ontario

Police officers working in the Northwest Region of Ontario must serve and protect across a vast majority of land, waterways, and trails. The Ontario Provincial Police Northwest Region provides services from nine detachments, spanning approximately 526,417 square kilometers, which extend from the Eastern border of Manitoba to the Northern border of the State of Minnesota (Northwest Region Action Plan, 2020). The Northwest Region consists of Kenora, Rainy River and Thunder Bay districts. The OPP Northwest Region upholds strong relationships with Municipal and Indigenous policing partners, such as T3PS. Under the Ontario First Nation Policing Agreement (OFNPA) there are 20 OPP administered policing agreements, and 9 self-

administered agreements, whereas T3PS is a regional self-administered service under the OFNPA, including approximately 20,000 residents across 23 Indigenous communities, such as Eagle Lake Indian Reserve no.27, and Couchiching First Nation (Ontario First Nation Policy Agreement, 1994). Both the OPP and T3PS work synchronously to identify community needs and provide services (OPP Annual Report, 2019). Thus, due to geographical location alone, policing in NWO is unique in terms of the vast square milage these officers must patrol.

In addition to the wide geographical reach, NWO experiences some of the highest crime rates in Canada (Statistics Canada, 2021b). For example, in 2020 Kenora had the second highest rate of sexual assault per capita despite its population being under 20,000 (Statistics Canada, 2021b). Further, Kenora landed in the top 20 most violent Canadian cities per capita in 2020 (Statistics Canada, 2021b). High crime rates are also reported in rural northern Indigenous communities in comparison to the rest of Canada. Research shows that high rates of victimization exist among First Nation, Métis, and Inuit peoples (Boyce, 2016). Further, high rates of mischief, common assault, and disturbing the peace may, in part, explain the large crime rate differences seen between Indigenous and non-Indigenous communities (Allen, 2020). Within Canada, police services working with Indigenous communities' report some of the highest crime statistics; despite this, there is little known regarding the nature of the crimes occurring in these communities. This is important as it could have a direct impact on the mental health of officers (Allen, 2020).

Police officers working in these communities – such as T3PS officers – must not only act as the sole criminal justice system representative (i.e., responsible for law enforcement, judiciary, and corrections) but they must also perform a variety of other job tasks, such as supporting programs, facilities, and medical services (Allen, 2020). Police officers and

community members living in remote locations have limited access to mental health resources, as they are often provided on a "fly-in" basis. The implication for supporting mental health is that healthcare professionals are not readily accessible, as they live in urban areas and are required to fly into these remote communities to provide supports (Kiedrowski et al., 2016). This makes it difficult for members of these communities to access the proper mental and physical health resources needed, so they must instead rely more heavily on the police for accessing mental health support. This increases the responsibility and workplace-burden of police officers working in Indigenous, rural communities, which has been found to increase mental-ill health among police populations (Kiedrowski et al., 2016).

Additionally, police officers serving rural Indigenous communities, are often responsible for supporting the mental health of community members as mental health supports are less accessible. As a result, the mental health burden of Indigenous and non-Indigenous police officers working for police jurisdictions such at T3PS is likely higher than urban police counterparts (Canadian Mental Health Association, 2009).

3.2 Community Mental Health and Policing Roles

In NWO, there is a fragmented system of community mental health services and supports (Canadian Mental Health Association, 2009). The delivery of mental health services within NWO is drastically different than that of urban Canadian communities; for example, access to care has been identified as less comprehensive, available, and accessible (Canadian Mental Health Association, 2009). In comparison to the provincial average, residents of NWO have higher self-reported rates of *fair and poor* mental health (Canadian Mental Health Association, 2009). As a result, delivery and access to mental health supports must be addressed as they have a large impact on not only the mental health of community members, but the mental health of the

police officers serving these communities as well. Rural NWO community members are being underserviced by psychiatrists and those living with mental illness experience additional barriers beyond being underserviced (Canadian Mental Health Association, 2009). For example, there is no consistent method being used in NWO to determine a capacity or existing gap in mental health services due to the absence of a standardized tool (Canadian Mental Health Association, 2009). Gaps within the continuity of care, more specifically coordination of hospital admission, discharge, and follow-up care also exist (Canadian Mental Health Association, 2009; Northern Policy Institute, 2020). Individuals residing in rural NWO, must travel to urban communities to access mental health care and addiction services. Following mental health treatment, these individuals are often left with inadequate discharge plans, and no referral to local mental health programs as they often do not exist (Canadian Mental Health Association, 2009; Northern Policy Institute, 2020). Rural NWO community members also have limited access to affordable housing. As a result, those experiencing mental-ill health are also being under-housed and, in turn, living in homeless shelters, group homes, or are homeless (Canadian Mental Health Association, 2009). Subsequently, when these individuals are having a mental health crisis, they do not have access to appropriate resources and will most likely be placed into contact with the police jurisdiction responsible for that community (Canadian Mental Health Association, 2009; Northern Policy Institute, 2020). As a result, the mental health of community members has become a main concern for NWO first responder organizations, policy makers and adjacent academics (Canadian Mental Health Association, 2018; Northern Policy Institute, 2020).

Police officers working in rural Indigenous NWO communities experience various stressful and traumatic events on the job, including repeated exposure to serious trauma and / or abuse (Canadian Mental Health Association 2014; Jones & Jensen, 2019). This frequent

exposure to trauma often causes negative impacts on police officer's mental and physical health (Anderson et al., 2015).

Law enforcement agencies in Canada have a history of implementing mental health promotion programs and initiatives with persons experiencing mental illness (Matheson et al., 2005). On-duty police officers are legally obligated to respond to all calls and provide their services (Lamb et al., 2014). Furthermore, police officers are often the first and only resource called to action when urgent situations involving individuals with mental illness arise (Lamb et al., 2014). Officers must make several difficult decisions on the job when they are called-to-action for an individual within a mental-ill health crisis, as they must decide if the person requires a treatment plan, and if they do connect them with the proper care plan (Lamb et al., 2014). Having this responsibility may place police officers in the "street-corner psychiatrist" role, a term coined by Lamb and colleagues (2014). Although police officers have grown accustomed to this role, many do not feel it is appropriate as they have received minimal training within the mental health field (Lamb et al., 2014). Furthermore, police officers interacting with mental health professionals may experience difficulties due to delays in consultation times and lack of mental health staff working in NWO (Canadian Mental Health Association, 2009). These circumstances often cause mental health professionals to release patients struggling with mental ill health pre-maturely as they are overwhelmed with alternate workloads or cannot provide the proper resources (Matheson et al., 2005). This back-and-forth between mental health professionals and patients may cause police officers to be placed in the same position with individuals repeatedly, which leads to decreased mental health, and the development of mental-ill health within police populations (Matheson et al., 2005).

Furthermore, Indigenous peoples have higher rates of substance use and mental health disorders in comparison to non-Indigenous peoples in Canada (Boyce et al., 2012). An Indigenous overrepresentation in the criminal justice system can also be seen. In the last decade corrections have reported a 53% increase in the incarceration of Indigenous peoples in Canada (Malakieh, 2018). Further, an Indigenous person is seven times more likely to be murdered in Canada than a non-Indigenous person, and two times more likely to be a victim of physical and sexual assault, as well as robbery (Brennan, 2009; Boyce, 2014). As a result, there is a heavy burden placed on police officers - specifically Indigenous officers - who are serving primarily Indigenous communities, as they are often experiencing repeated exposure to the same traumatic events, which may decrease their mental health as a result (Jones & Jensen, 2019). Therefore, to understand the mental health burden of T3PS officers within the context of Indigenous policing, it is important to have a background understanding of Canadian Indigenous peoples' history, their traditional healing processes, as well as Canada's history of police service enforcement within Indigenous communities.

4.1 Understanding the History of the Indigenous Peoples of Canada

The Indigenous peoples of Canada have a long history of lost population, land, family, and culture, alongside forced relocation, oppression, and abuse (Elias et al., 2012; McKenzie, 2022). For Indigenous peoples, centuries of colonial practices have supressed and removed cultural identity, while instead forcefully assimilating children into Euro-Western colonization through residential schools (Aguiar & Halseth, 2015). As a result, severe trauma has been experienced, built upon, and passed through generations (Aguiar & Halseth, 2015). Over time, the effects of intergenerational trauma can be felt through entire populations, resulting in physical, psychological, and economic disparities (Sotero, 2006). This exposure to chronic

trauma can manifest in Indigenous peoples, and lead to anxiety, depression, grief, addiction, and self-destructive behaviours (Bombay, Matheson, & Anisman, 2009). Not only are individuals affected by intergenerational trauma, but communities are as well, which can lead to weakened social structures and high-rates of suicide (Evan- Campbell, 2008).

There is a noted failure in the Canadian health care system towards understanding the connection between historical and present trauma within Indigenous populations (Gunn, n.d). As a result, treatment efforts are ineffective as they do not follow Indigenous ways of healing, and instead attempt to control the social world of Indigenous individuals, to minimize their chances of "acting out" in the future (Duran, 2006). Therefore, understanding how mass intergenerational trauma impacts Indigenous populations is necessary when conducting research with Indigenous peoples who are being exposed to traumatic, high-stress events regularly (Manzella & Papazoglou, 2014).

4.1.2 Understanding Indigenous Canadian Traditional Health and Healing

As mentioned previously, European colonization has had a critical impact on Indigenous people and created intergenerational trauma that impacts all Indigenous peoples in some way. Indigenous peoples, who believe and participate in their traditions and teachings, heal best through traditional methods (Hill & Coady, 2003). *The Aboriginal Healing Movement* was developed from traditional knowledge and has been found to have positive effects on the healing process of Indigenous peoples and their communities (Aboriginal Healing Foundation, 2002). The term traditional knowledge refers to the cultural practices of Indigenous peoples, including spiritual, physical, emotional, and mental components. Ceremonies such as the sweat lodge, sundance, condolence, uwipi, hatowi, vision quest, sunrise, fasting, and feasting are also used for traditional healing. Teachings such as the seven grandfathers, seven stages of life, dark versus

light, and the medicine wheel can be passed down through generations (Elias et al., 2012; Hill, 2008; McKenzie, 2022; White, 1988). Furthermore, traditional knowledge may be translated to values, beliefs, ecological knowledge, food, diet, and movement, in addition to spiritual journeys through dreams and visions (Dumont, 1988; Ranford, 1998).

Indigenous Canadian cultures are typically based on holistic worldviews, although their cultural practices are often kept within oral tradition, meaning they have never been written down (Hill, 2008). Dedicated medicine people hold cures for illness and disease that have been passed down through generations. Their understanding of healing mixed with their connection to the Creator, and cultural knowledge is integrated with the language of their people, and in turn becomes threatened as Indigenous languages diminish (Hill, 2008). Furthermore, many Indigenous peoples have strong connections to and understandings of herbs and plants; which provide remedies to illnesses. This knowledge is also guided by spiritual forces (Hill, 2008). Indigenous peoples who practice their cultural healing are often healed by a combination of medicine, ceremonies, and traditional healers. Understanding the traditional ways of healing used by Indigenous peoples is important when identifying predictors of mental health as evidence suggests that they are most successful in their ways of mental health healing when they are using their traditional values (Hill, 2008). Although traditional methods of healing are not being considered in the context of this research project, it is important to acknowledge healing processes as they should be used to inform the development of mental health strategies and resources for T3P officers – specifically Indigenous officers - in the future.

4.1.3 Historical Evolution of Policing in Urban and Rural Ontario Communities

Historically, the Canadian federal government (i.e., the Royal Canadian Mounted Police; RCMP), enforced laws on reservations to maintain peace between Indigenous and European

individuals (Neetlebeck & Smandych, 2010). Throughout history the RCMP enforced policies that are now considered discriminatory, destructive, and paternalistic (Neetlebeck & Smandych, 2010). For example, over-representation of Indigenous and racialized people within the criminal justice, practices of racial profiling, and discriminatory use of force against these populations (McKay, 2021). Prior to colonization Indigenous approaches to justice were grounded in healing, educating, and reconciling, rather than an individualized authoritarian approach which is typically seen today (Canadian Mental Health Association, 2018). Until the 1960's, the federal government was responsible for Indigenous affairs, including jurisdiction of Indigenous reservations, and it was not until the 1970's that self-administered police services were founded (Ruddell & Lithapoulos, 2016).

Policing in Canada has evolved alongside patterns of settlement, although policing evolved as a provincial responsibility after Canada became its own nation in 1867 (Kiedrowski et al., 2017). During this time, there was a percentage of individuals who identified as Indigenous within the West, which were considered federal territories and policed by the federal government (Kiedrowski et al., 2017). The need to establish sovereignty in the West led to the creation of the federally funded North-West Mounted Police (NWMP) and RCMP, in which the majority of policing within these Indigenous communities was delivered until the 1960s (Kiedrowski et al., 2017). It is important to acknowledge the historical impact the NWMP and RCMP had on Indigenous communities, as it created distrust between Indigenous peoples and the police, cultivated by discriminatory and paternalistic federal government behaviours such as broken policy agreements, which led to starvation, diseases, and high death rates (Daschuk, 2013). The dissatisfaction with police services into the 1970's, led to Indigenous communities creating their own police programs (Daschuk, 2013). In 1992 the First Nations Policing Program (FNPP) was

brought to Canada; here Indigenous peoples created their own self-administered police service (Kiedrowski et al., 2017). The purpose of self-administered police services is to utilize self-determination, professional, and culturally relevant police practices when serving Indigenous communities (Kiedrowski et al., 2017). The T3PS in Ontario began as the Treaty #3 Policing Initiative in 1999, and officially began operating in 2003, becoming a First Nation self-administered police service (Treaty Three Police Services, 2018).

A comprehensive review of Indigenous policing was conducted following the administration of self-administered police services, many key findings of concern emerged (Ruddell & Lithapoulos, 2016). This review identified that non-Indigenous police officers comprise the majority of those working within self-administered police services, which has been found to be a long-standing concern due to the history between Indigenous peoples and the justice system. Findings within this review include: (a) chronic under-policing reflected by a lack of regular police presence, (b) poor response time to incidents, (c) lack of preventative patrol and crime prevention programs, (d) lack of understanding and sensitivity to Indigenous culture by non-Indigenous police officers, and (e) insufficient and inequitable funding (Ruddell & Lithapoulos, 2016). These factors have contributed to Indigenous peoples experiencing even higher mistrust of police officers, which impacts the mental health of both the officers patrolling these communities, as well as the community members themselves (Hough et al., 2010). Public trust in policing is needed, as it helps build institutional legitimacy and compliance with the law (Hough et al., 2010). Historical mistrust between Indigenous individuals and the police may also be a contributing factor for higher crime rates in these rural communities, which causes increased mental illness within all counterparts (Hough et al., 2010). As a result, Indigenous police officers, working in rural Indigenous communities, experience increased mental illness

(Canadian Mental Health Association, 2018). Thus, it can be determined that T3PS officers working in Indigenous communities face a variety of challenges and stressors due to geographic location and the background experiences of these Indigenous communities. This is a key determinant of both physical and mental health for both residents and T3PS officers working within these rural communities, which are additional challenges compared to those working for the OPP within northern, urban communities.

Furthermore, people living in rural NWO communities have significantly lower socio-economic well-being than those living in Southern Ontario (Auditor General of Canada, 2018). Socio-economic status is often measured by observing one's education income and health; closing this gap would incorporate improving social well-being and economic advancements of Indigenous peoples living in rural communities (Auditor General of Canada, 2018). Individuals with lower socio-economic classes rely more strongly on the police to provide a larger range of services, including security and protection of one's physical wellbeing in an immediate situation (Landau, 2019). In turn, this has been found to be another cause of increased stress among police officers working in rural Indigenous communities, such as T3PS officers (Landau, 2019).

4.1.4 Treaty Three Police Service Supporting Community Mental Health, and Addressing Intergenerational Trauma, Colonization, and Residential Schools

Police officers working in the rural north for T3PS must answer several calls within Indigenous communities for youth who self-identify as being in a mental health crisis (Treaty Three Police Services Annual Report, 2019). In 2018, T3PS and the Kenora Chiefs Advisory joined together to create a mental health and addictions program (Treaty Three Police Services Annual Report, 2019). This partnership produced the Mentor and Helping Kids with Adversity (MAHKWA) program. An important aspect of a T3PS officer's work is acknowledging the over-

representation of youth in crisis and understanding the impact of intergenerational trauma on youth with high-risk behaviours. Acknowledging this has been identified as imperative and an ongoing challenge within the rural north mental health realm (Treaty Three Police Services Annual Report, 2019). The impacts of colonization and mass trauma experienced from events, including residential schools on Indigenous communities (Smallwood et al., 2021), have become widely known through increased news and media exposure. Furthermore, only in the past two decades has evidence-based literature emerged to aid with understanding the trauma colonization has had on the health and well-being of Indigenous peoples (Paradies, 2016). The practice of colonization has been directly linked to the disease, poverty, and disadvantages experienced by Indigenous peoples displaced from their culture, land, and resources (Smallwood et al., 2021). It has been further identified that the effects of trauma can be passed down inter-generationally through residential school survivors' children and grandchildren (Elias et al., 2012). This traumatic history, along with having a family history of abuse has been associated with suicide clusters (Niezen, 2009). Niezen (2009) defines suicide clusters as repeated patterns of self-inflicted deaths occurring in close geographic proximity, as has been seen within Indigenous communities. As a result, depression and anxiety disorders among surviving family and community members has drastically increased (Niezen, 2009). This crisis not only impacts the mental health of those living within these communities, but also impacts the mental health of police officers responding to these tragic events. Therefore, it is imperative that police officers have the proper mental health training and preparedness to support and protect those in the areas they serve, as well as the ability to manage their own personal mental health (Matheson et al., 2005).

In terms of schooling and mental health training, T3PS officers must uphold the same standards as OPP officers, meaning they must attend a formal police college and meet all applicable Ontario Provincial training standards (Treaty Three Police Services Annual Report, 2019). Regarding mental health training following college, it has been identified that officers working in NWO receive the same training as those working in Southern Ontario, despite the differences (i.e., its wide geographical reach, higher crime, and victimization rates, as well as higher Indigenous populations).

To date there is limited research available on the impact that responding to mental health calls may have on the mental health of police officers (Canadian Mental Health Association, 2018). Further, this lack of mental health training and general mental health understanding may impact officers' quality of response to community members. When officers do not receive sufficient mental health training to support their community members, they may not know how to adequately support Indigenous peoples in a mental health crisis, and as a result develop decreased mental health themselves through repeated exposer over time (Koziarski, O'Connor & Frederick, 2020).

4.1.5 Indigenous Traditions within Treaty Three Police Services

The Okichida Drum came to T3PS in NWO because of a dream from the Big Grassy elder to assist Indigenous police officers in performing their daily duties; to provide strength, and support spirituality (Treaty Three Police Services: Our Traditions). The pipe is also a powerful, spiritual entity that brings many teachings to T3PS officers. The Midawin teachings indicate that the Creator works through the pipe; the stone and bowl represent their Seven Grandfathers, and the tobacco placed in it comes from the earth to represent the Mother (Treaty Three Police Services: Our Traditions). Further, the fire represents movement in life, and the smoke represents

the spirit that takes the prayers to the Creator. Lastly, the Eagle Staff is used by T3PS to symbolize the strength and protection of its officers and the Indigenous communities in which they serve; the staff has 23 feathers to represent each of those communities (Treaty Three Police Services: Our Traditions). It is important to uphold and incorporate traditional teachings and ways of healing within Indigenous police practices, as Indigenous officers experience repeated exposure to on-duty trauma, which can negatively impact their mental health (Bryant-Davis, 2007; First Nations Health Authority, 2022; Statistics Canada, 2021c). Incorporating traditional and Western methods of healing have been found to have a positive outcome and impact on the mental health of Indigenous peoples (Bryant-Davis, 2007; First Nations Health Authority, 2022; Statistics Canada, 2021c). Therefore, incorporating a holistic mental health treatment plan, following on-duty trauma, could be beneficial to Indigenous officers working in rural NWO.

Furthermore, Indigenous communities favour wholly autonomous Indigenous police forces (The Government of Canada, 2016). Treaty Three Police Services primarily employ Indigenous officers, who serve primarily Indigenous communities and peoples. Research has identified that self-administered police services should closely following models that are not constrained by western legal traditions (The Government of Canada, 2016). Instead, Indigenous policing should reflect the cultural realities and needs of their communities. As discussed earlier, police officers serving rural Indigenous communities are often responsible for providing mental health services to community members. Therefore, having access to traditional and Western healing methods is important for the officers serving rural Indigenous communities, and is also important for Indigenous community members. Additionally, the barriers and challenges to accessing proper mental health supports as experienced by police officers (i.e., geographical location and ethnicity) are directly impacted by the access to care available in rural NWO.

5.1 Access to Mental Health Services and Care for Northwestern Ontario Community Members

Pass et al. (2019) defines access as "the degree to which characteristics of the health care system fit the characteristics of the health system users, though these dimensions have been defined inconsistently and interchangeably by different authors" (pg. 2). Access can be optimized by considering various dimensions, some of which include availability; acceptability; affordability; awareness; as well as adequacy in service design, implementation, and evaluation (Saurman, 2015). Individuals living in NWO experience critical health disparities; which include limited access to mental healthcare services (Saurman, 2015). Rural residents are less likely to seek out and receive treatment for their mental health disparities in comparison to those living in urban communities (Saurman, 2015). Individuals being treated for mental ill health that live in rural communities are less likely to see specialists in comparison to their urban counterparts (Saurman, 2015). In addition, individuals residing in rural northern communities are more likely to be affected by physical illnesses, such as cardiovascular disease and diabetes which typically have worse outcomes when mental health disorders are present (Eberhardt & Pamuk, 2004). Police officers working in rural communities have difficulty accessing mental health care, which can directly impact their ability to support their community (Jameson & Blank, 2009). Problems often include a shortage of qualified personnel, lack of specialty mental health services, and stigma associated with receiving mental health treatment plans (Jameson & Blank, 2007).

A fragmented system of community mental health services and supports exists in NWO (Canadian Mental Health Association, 2009). The delivery of mental health services to rural, Northern communities is different than those of urban Canadian communities. Furthermore, there have been identified gaps within continuity of care, specifically services such as

coordination of hospital admission, discharge, and follow-up care (Canadian Mental Health Association, 2009; Northern Policy Institute, 2020). As a result, the mental health of community members has become a main concern for several NWO first responder organizations, policy makers and adjacent academics (Canadian Mental Health Association, 2018; Northern Policy Institute, 2020).

5.2 Barriers and Facilitators to Accessing Mental Health Support Among Police Officers

Access to mental health support has been found to be effective in managing mental health (Royle et al., 2009). Royle and colleagues (2009) identified that stigma has an important impact on a police officer's ability to seek and engage in psychological support services. First responder populations face a significant risk of developing mental health problems, caused by the nature, frequency, and intensity of work-related exposure to trauma and critical incidents (Jones et al., 2019). Within police workplace cultures, there is a strong emphasis on strength, self-reliance, and life-saving abilities (Erich, 2014). As a result, it may be difficult for an officer to seek help, which in turn may perpetuate poor mental health outcomes among this at-risk population (Jones et al., 2019). It has been identified that first responder groups have a greater willingness to use a program that is tailored to meet their individualized needs compared to a generic program such as a mental health hotline (National Volunteer Fire Council, 2008); although, few tailored resources exist (Lewis-Schroeder et al., 2018; National Volunteer Fire Council, 2008). For example, when mental health services are available, first responders are less than 40% likely to seek professional help, due to the emphasis police culture has on strength and self-reliance (Erich, 2014; Institute of Medicine, 2015). Furthermore, several structural and cultural barriers to help-seeking in terms of mental health, such as perceived accessibility of treatment, and concern for stigma persist within policing (Kim et al., 2018). Therefore, there is an identified need to

develop evidence-informed interventions that effectively address the mental health needs of first responder groups.

5.2.1 Impact of Race and Ethnicity on Indigenous and non-Indigenous Police Officers' Perceived Access and Barriers to Mental Health Supports.

5.2.1 (a) Indigenous Police Officers

Police officers who identify as racial/ethnic minority groups experience higher levels of perceived work stress and subsequently, decreased mental health (Gershon et al., 2009). Officers in minority groups may also face discrimination and organizational unfairness, for example, less likely to be chosen for certain assignments due to race (Gershon et al., 2009). A research study examining mental health and stigma among police officers found that the size of the department and race were both significant factors in predicting stigma and organizational stress (Soomro & Yanos, 2019). Indigenous officers also experience increased challenges as they are required to secure and protect communities in which they have personal relationships. For example, Indigenous police officers may be sent out on calls where family and friends are involved. This may be traumatic for the officer as the call could involve exposure to a disturbing situation (i.e., death of a family member), which is more common in rural communities (Occupational Health and Safety, 2020). When these events occur, they often cause cumulative adverse health impact such as increased stress, mental-ill health, or the development of a mental health disorders (i.e., PTSD; Canadian Mental Health Association, 2020). There is currently no existing research aimed towards understanding the mental health of police officers serving rural NWO communities. Furthermore, there is no research that identifies the mental health status and potential barriers to accessing mental health supports as experienced by Indigenous police officers working within Indigenous NWO communities. Indigenous police officers experience

unique challenges in terms of what impacts their mental health and what supports are available, for example as previously identified: intergenerational trauma, lack of access to supports, and increased exposure to traumatic events (i.e., calls-to-action where primarily Indigenous community members are in mental health crises). Therefore, having an improved understanding of the mental health indices of officers serving NWO communities, particularly Indigenous officers, could lead to improved services and supports, ultimately benefiting T3PS officers and community members positively.

5.2.1 (b) Non-Indigenous Police Officers

Non-Indigenous police officers serving rural Indigenous communities also perceive decreased mental health levels in comparison to urban Canadian officers (Jones et al., 2019). Non-Indigenous officers working in the rural NWO have high stress levels, as they have a difficult time gaining acceptance and civilian cooperation (Jones et al., 2019). As discussed previously, there is a lack of trust between non-Indigenous officers and Indigenous community members which can be linked to the history of Western style policing. Further, a current "one size fits all" approach is being utilized within policing, versus culturally responsive policing which alters conventional policing approaches to accommodate Indigenous community-specific cultural practices and values (Public Safety Canada, 2016). Further, when a non-Indigenous police officer uses conventional law-based responses, it can be triggering to an Indigenous community member (Public Safety Canada, 2016). Consequently, there is inherent complexity when implementing policing strategies in Indigenous rural communities, particularly when considering high crime and violence.

In terms of overall policing, another important barrier to accessing mental health supports for all officers is the perception of stigma. Within police populations, it has been identified that

inherent masculine values, heroism, and independence can lead to a suppression of emotions; which often leads to mental ill health and stigma, and further represses help seeking behaviours (Kirschman, 2018).

5.2.2 Stigma as a Barrier to Accessing Mental Health Supports

Stigma is negative ideas or attitudes attributed towards a certain group (Goffman, 2018). This can lead to discrimination: the action of treating one group differently than others (Goffman, 2018). Stigmatization can occur when someone is labelled or identified by a mental or physical illness, and as a result no longer viewed as an individual but instead stereotyped by said illness. This stigmatization in turn may cause an individual to conceal their mental illness (Goffman, 2018). It has been identified that individuals living with mental illness are one of the most stigmatized groups (Goffman, 2018; Karaffa & Koch, 2015). In addition to stigma, self-stigma can occur when a person has negative ideas or attitudes about themselves, or when an individual internalizes negative beliefs of mental illness. This leads to low self-worth, poor self-esteem and self-efficacy (Corrigan & Rao, 2012). Recent studies have suggested that mental health disorders among police officers, differ in comparison to other occupational groups as officers do not want to be viewed as "less than" by their colleagues, in terms of their career (Kirschman, 2018). Therefore, they avoid seeking mental health supports for fear of being stigmatized, which in most cases worsens their mental health (Bell & Eski, 2016; Canadian Mental Health Association, 2018; van der Velden et al., 2013). Research has found that police officers also often have the mindset of wanting to "leave work at work," meaning they are not likely to address their concerns with family members or friends following an incident, or even a stressful day (Kirschman, 2018). This occurrence promotes avoidance about discussing their personal or work-related mental health problems, which limits their expression of emotions and

feelings (Ranapurwala et al., 2016). Due to their self-stigmatization, there is no perceived outlet available for them to manage their adverse mental health or feelings (Kirschman, 2018). When police officers are in this state, and experience difficulties reaching out for supports, they do not receive the proper treatment to manage their mental health (Kirschman, 2018). These inadequate responses to managing extreme traumatic stressors may have negative impacts and result in police officers using maladaptive and individualized coping mechanisms, such as emotional detachment, substance abuse, and authoritarianism (Bell & Eski, 2016; Evans et al., 1993). Today, police officers are becoming more receptive to engaging in mental health training, although, stigma continues to be preventive factor to accessing mental health supports (Bell & Eski, 2016). For example, officers are often very private about their mental health conditions, treatment plans, or struggles for fear of jeopardizing their career (Bell & Eski, 2016). Therefore, it is important to understand regional barriers to determine how they align with what is known, to address mental health barriers in the future.

When considering NWO police officers specifically, police culture stigma is an important barrier to accessing mental health supports (Canadian Mental Health Association, 2018). To become a member of the Canadian police force, laborious training and requirements and high expectations are set both among officers and in the eyes of the community (Soomro & Yanos, 2019). Police training in the mental health field falls short, and police officers are scrutinized for their responses to diversity and domestic violence (Canadian Mental Health Association, 2018). Mental health stigma is perpetuated in policing where police officers are not supported in reporting mental health challenges (Ranapurwala et al., 2016). Police officers are expected to show physical and emotional courage, as lack of control is considered weak, which makes it difficult for officers to reach out and receive mental health support (Bell & Eski, 2016;

Ranapurwala et al., 2016). Within police cultures there is the implication that if police officers cannot take care of themselves, they cannot properly take care of others; which supports the beliefs behind stigma, as a barrier to accessing mental health support (Bell & Eski, 2016). Moreover, in the context of Indigenous and non-Indigenous police officers working in rural Indigenous communities, there is a higher, more significant impact of self-stigma associated with seeking mental health supports. Literature shows that generations of poverty, abuse and cultural stigma have had important impacts on Indigenous communities, often leading to crime (Gorelick, n.d). Deep-rooted stigma exists within Indigenous populations, for example ingrained misconceptions of Indigenous peoples can have a negative impact on the mental health of Indigenous peoples (Gorelick, n.d.). Therefore, Indigenous police officers may have additional complexities influencing self-stigma; as they may perceive self-stigma from being Indigenous, on top of the stigma felt as an officer within NWO (Gorelick, n.d.).

Geographical location, in which the police officer lives, may also have an impact on an officer's ability to access supports. As mentioned, access to care is a barrier to receiving supports, especially within rural Indigenous communities. Therefore, when there is limited access to these services it deters officers even further from receiving mental health supports.

5.2.3 Impact of Geographical Location and Police Jurisdiction on Police Mental Health

Recent studies have identified that the prevalence of mental health disorders differs between police jurisdictions, depending on the organisation and/or geographical location (Queirós et al., 2020). Larger police jurisdictions are often provided with more funding and supports in terms of mental health supports (Ruddell & Lithapoulos, 2016). There is also a perceived perception that smaller police jurisdictions are less sophisticated than larger urban jurisdictions, which may be in part due to internalized racism and/or lack of current relevant

research in the area (Ruddell & Lithapoulos, 2016). First responders working in the rural North are often skilled in providing mental health support to their local communities, and are an important mental health helping resource, as there are seldom available. In recent years, there has been a significant workplace shortage of mental health professionals in rural communities (Wilson & Usher, 2015).

Despite police jurisdictions in Canada acknowledging the need for police mental health support, barriers prevent officers from engaging in treatment. Furthermore, police officer's utilization of mental health services in Canada does not adequately match their need for treatment (Waters & Ussery, 2007). There are significant differences between how police organizations are monitored and structured. For example, in Canada, there are fewer resources and reduced mental health funding to support police officer mental health in comparison to other countries. Access to mental health in Canada is delayed in comparison to other countries (i.e., U.S.A.); which can be seen as a barrier for police trying to access mental health supports (Wilfrid Laurier University, 2021). When considering the context of NWO, there are significant organizational differences between jurisdictions. Partnerships have been developed between the OPP and T3PS, and when needed the two jurisdictions work closely with one another in supporting community mental health, although each has their own unique mental health policies and strategies in place. Moreover, the incorporation of Indigenous-specific mental health and wellness strategies in Canada are important as they incorporate frameworks that support Indigenous approaches to healing, as well as holistic expertise and the knowledge of Indigenous peoples residing in these communities (National Collaborating Centre for Healthy Public Policy, 2018). Jones and colleagues (2019) determined that Indigenous police jurisdictions are unique

and less understood than other types of Canadian law enforcement, and there is a paucity of literature to address this disparity.

5.2.4 Policing in Rural Indigenous Communities

It has been identified that police officers working in rural northern communities' face isolation, lack of back-up on calls to action, and under-funding (Canadian Mental Health Association, 2018). Police officers working in rural northern Indigenous communities' experience additional challenges that have greater impacts on perceived mental health barriers (Canadian Mental Health Association, 2020). Police officers working in small town rural communities also experience significantly higher levels of stress (Canadian Mental Health Association, 2020).

In addition, there are increased crime rates within rural Indigenous communities. Statistics Canada (2018) reported that Indigenous populations are growing, with almost half (48%) of the population consisting of children and youth aged 24 and under. Further, the number of self-identified Indigenous persons in Canada has grown by 42.5%. This demographic profile may have implications for the police jurisdiction (i.e., T3PS) responsible for securing these communities, since these age groups have been found to be involved in higher crime rates. Subsequently, high crime rates create feelings of stress within members working for these police jurisdictions (i.e., deputies, chiefs, superintendents, sergeants) and may cause increased mental-illness within officers (Brzozowski et al., 2006).

6.1 Problem Statement

A unique police structure exists within NWO, with layered complexities that influence the mental health of Indigenous and non-Indigenous police officers serving rural Indigenous communities. There is a heavy burden placed on officers, especially Indigenous officers, serving

Indigenous communities. Consequently, identifying and understanding mental health and barriers to accessing mental health supports experienced by T3PS officers is imperative. Furthermore, identifying mental health in relation to trauma experiences could allow contextually relevant solutions to be developed that integrate traditional Indigenous teachings and ways of healing.

7.1 Research Purpose and Objectives

The overarching purpose that guided this study was to identify potential mental health exposures, adverse mental health outcomes, and potential barriers to accessing mental health supports among Indigenous and non-Indigenous T3PS officers. Collectively, for the purpose of this study, these indices encapsulate the term "mental health status." The study' *purpose* was guided by two *research objectives:* (1) to determine the mental health status of Indigenous and non-Indigenous T3PS officers , and (2) to identify the potential barriers to accessing mental health supports among Indigenous and non-Indigenous T3PS officers .

Chapter 3: METHODOLOGY

3.1 Study Design

A quantitative, descriptive, cross-sectional research design was used to identify the mental health status of Indigenous and non-Indigenous T3PS officers serving rural communities in NWO. This study was approved by Lakehead University's Research Ethics Board 1469316 (Lakehead University Research Ethics Board, 2022).

3.2 Participants

Participants were active-duty police officers working for the T3PS serving Kenora, Ontario, Canada; Couchiching First Nation, Ontario, Canada; and Eagle Lake Indian Reserve No. 27, Ontario, Canada. The term active signifies that participants were engaged in their

occupational duties by attending their scheduled shift rotations. Participants were required to have been employed for a minimum of 1 year by T3PS, be between the age of 18-65, and able to read, write, speak, and understand English. There were no exclusion criteria. Several methodologies were used to recruit participants, including emails, posters, and information sessions at shift-briefings for each platoon that included knowledge users and researchers.

3.3 Instrumentation

A battery of questionnaires was administered to determine participant demographics, mental health status, adverse mental health outcomes, and barriers to accessing mental health supports of Indigenous and non-Indigenous police officers serving T3PS. Each component is described below.

3.3.1 Demographic Questionnaire

A demographic questionnaire was administered to determine individual attributes, including: sex, age, years of service, rank, service location and race / ethnicity; to characterize the participants, and enable comparisons within this scientific domain (see Appendix A).

Objective (1) To determine the existing mental health status of Indigenous and non-Indigenous police officers serving T3PS in NWO

The Critical Incident History Questionnaire for police officers (CIHQ; Weiss et al., 2010; see Appendix C) and the Brief Trauma Questionnaire (BTQ; Schnurr et al., 2002; see Appendix B) were administered to identify factors associated with mental health exposures; the Post-Traumatic Stress Disorder Checklist for the DSM-5 (PCL5; Weathers et al., 2013; see Appendix D) was administered to identify PTSD risk as a measure associated with adverse mental health.

3.3.2 Critical Incident History Questionnaire for Police Officers (CIHQ):

The CIHQ is a 34-item self-report scale used to assess **work-related trauma exposure**; it was administered to identify police officers combined work-related trauma exposure by measuring frequency and severity of critical incidents (Soomro & Yanos, 2018; Weiss et al., 2010). Critical incidents included items such as encountering a deceased body, being intentionally injured, or making a mistake that led to the death of a colleague (Weiss et al., 2010). The questionnaire was developed to identify various factors associated with police officers' exposures to workplace critical incidents. Cronbach's alpha values of .77 and .86 indicated that the CIHQ is a reliable and valid outcome measure (Chopko et al., 2015; Weiss et al., 2010).

3.3.2. (a) Measuring the Frequency of Critical Incident Exposure using the CIHQ

Participating police officers were asked to report the number of times they experienced each critical incident to date over the duration of their career. Participants were asked to report the **frequency of CI exposure** from 0-9, 10-20, 21-50, and 51 plus (i.e., if a police officer experienced a critical incident exposure 8 times, they would report 0-8 for that item; Weiss et al., 2010).

3.3.2. (b) Measuring the Severity of Critical Incident Exposure within the CIHQ:

An additional rating for each item was included to scale the **severity** of exposure. Using a scale of 0 = *not at all* to 4 = *extremely,* officers were asked to rate each item in response to the following question*: in your opinion, how difficult would it be for police officers to cope with this type of incident* (Weiss et al., 2010). In this way, the severity of CI exposure was quantified independent of whether the officer experienced the CI or not. Quantifying both frequency and severity allowed the researchers to determine if there was a discrepancy between an officer's

personal view of experiencing a CI and how it would affect them (severity), versus the number of times (frequency) an officer actually experienced the CI (Weiss et al., 2010).

3.3.3 Brief Trauma Questionnaire (BTQ):

The BTQ is a 10-item self-report scale used to assess **non-work-related trauma exposure**; where respondents provide "*yes*" or "*no*" to a series of questions (Schnurr et al., 2002). If the response "*yes*" was chosen, the participant was asked to respond to two follow-up questions to determine whether the traumatic event would meet DSM-5 criteria for PTSD risk. Follow-up question 1 (A1) asked about *life threat/serious injury*, and follow-up question 2 (A2) asked about their *subjective response* (Schnurr et al., 2002; APA, 1994). Exposure to an event was scored positive if the individual indicated "*yes"* to having experienced: *life threat or serious injury* for events 1-3 and 5-7*; life threat* for event 4; *serious injury* for event 8, or *"has this ever happened to you?"* for events 9 and 10 (Schnurr et al., 2002). The BTQ is considered a reliable and valid measure of trauma exposure (.74, .70) with interrater reliability ranging from good to excellent (Schnurr et al., 2002).

3.3.4 Post-Traumatic Stress Disorder Checklist (PCL-5):

The PCL-5 identifies individual **risk of PTSD** based on reported symptoms with respect to the DSM-5 (Weathers et al., 2013). The PCL-5 was administered to determine T3PS officer's risk of PTSD. The PCL-5 is a 20-item self-report questionnaire based on the symptoms per the DSM-5 (Weathers et al., 2013). Each of the 20 questions comprised a five-point Likert scale, rating symptom severity in the previous month, ranging from 1 (*not at all*), 2 (*a little bit*), 3 (*moderately*), 4 (*quite a bit*) to 5 (*extremely*). The questionnaire was scored by summating the resulting 20 Likert scores, providing a numerical total symptom severity score for the participants' PTSD risk (ranging from 0 to 80; Weathers et al., 2013). The higher the score

achieved, the greater the risk of developing PTSD; those exceeding a score of 39 are at high risk and likely to be diagnosed with PTSD in clinical settings.

In addition to the total symptom severity score, four additional subscales: *re-experiencing* (items 1-5 – max score = 20), *avoidance* (items 6-7 – max score = 8), *negative alterations in cognition and mood* (items 8-14 – max score = 28), and *hyper-arousal* (items 15-20 – max score = 24) were reported. This subscale has been identified as a valid and reliable way to contextualize PTSD risk (Cohen et al., 2015). A mean score (with standard deviation) was also computed, which is the subscale score divided by the number of items. With a mean score higher than two indicating likely risk of PTSD symptoms (Cohen et al., 2015). These scores range from 0 (*not at all*), 1 (*a little bit*), 2 (*moderately*), 3 (*quite a bit*) to 4 (*extremely*). The PCL-5 has strong test-retest reliability, convergent validity, and discriminant validity: Cronbach's alpha values of .92 and .93 indicated excellent reliability within the PCL-5 total scores over time (Blevins et al., 2015; Bressler et al., 2018).

Objective (2) To identify the potential barriers to accessing mental health supports among these police officers:

3.3.5 The Self-Stigma of Seeking Help Scale:

The SSOSH scale (Vogel et al., 2006): assesses an individual's perception of **self-stigma associated with seeking mental health support** (see Appendix E). The SSOSH scale is a 10-item self-report scale where items are rated on a 5-point Likert scale ranging from 1 (*strongly disagree)* to 5 (*strongly agree)*. The SSOSH scale was used to identify feelings of inadequacy or inferiority when seeking mental health support (Vogel et al., 2006). The SSOSH scale considers potential threats to seeking help; example items include *seeking psychological help would make me feel less intelligent* or *my self-confidence would not be threatened if I sought professional*

help. (Vogel et al., 2006). Vogel and colleagues (2006) identified a one-factor structure and showed support for the internal consistency of the measure (alpha ranging from .86 to .90). Concurrent validity has been supported by meaningful and significant comparisons to other stigma measures and attitudes for seeking help (Vogel et al., 2006).

3.4 Data Collection

Data collection occurred over October 2022 and was organized with T3PS management and knowledge users to minimize the impact on operations. Participants were provided with the opportunity to participate on- or off-duty as the questionnaires were distributed electronically via SmartSurvey©. All participating active-duty police officers anonymously completed a demographic questionnaire, the BTQ, the CIHQ, the PCL-5, as well as the SSOSH scale.

The student researcher and their supervisor were invited to attend a series of morning in-person debriefing meetings at T3PS' Kenora, Ontario location during data collection (October 6, 7, 20, 21, 2022). Each meeting was coordinated between the on-duty platoon sergeant and the student researcher; active-duty officers attended the meetings. The student researcher and supervisor attended a debriefing meeting for all four platoons (platoon A, B, C, and D). Platoon shift-rotations aligned with T3PS' Couchiching First Nation, Ontario and Eagle Lake Indian Reserve no.27, Ontario jurisdiction locations, allowing all active-duty officers at either location to attend via Zoom©. Meetings included a review of the research protocol, time requirement and offered opportunity for any follow-up discussion and questions related to both the project and overall police mental health. This opportunity was suggested by and coordinated with knowledge users to support project implementation.

3.5 Statistical Analysis

Once the data were collected, responses from each question associated with each questionnaire (i.e., the demographic questionnaire, the CIHQ, the BTQ, the PCL-5 and the SSOSH scale) was entered in Microsoft© Excel (2022). Data entry was verified by the student researcher who re-examined each entry to ensure the respondent and recorded values were the same. The individual responses of each score from each questionnaire was then summated to identify participants' CIHQ, BTQ, PCL-5, and SSOSH total scores. Data were then exported to IBM© SPSS Statistics (2022) 28 for macOS.

Data were then summed across all participants for each question for each questionnaire. Recoding was required for questions (2, 4, 5, 7 and 9) on the SSOSH scale because of reverse-scoring. Descriptive statistics (mean and standard deviation) for demographics was conducted. These central tendencies were chosen based on parametric data collected. Descriptive statistics (median and interquartile range) for each question for each questionnaire was conducted. These central tendencies were chosen based on the methodology used as well as the sample size. Following this, an examination of the descriptive data looking at Indigeneity on each questionnaire was conducted; the same analysis was conducted on all questionnaire subscales.

In addition to the total PTSD symptom severity score (from 0-80), the PCL-5 was scored on four subscales providing a mean score made of the subscale score divided by the number of items (including standard deviation). The PCL-5 subscales were then examined descriptively through Indigeneity.

Chapter 4: RESULTS

4.1 Demographic Characteristics

Of the 41 participants who responded to the initial SmartSurvey © link, nine participants partially completed the study, and 32 completed the study in its entirety. Currently, there are 47 active-duty officers in Kenora; 19 active-duty officers in Couchiching; and 8 active-duty officers in Eagle Lake. For our study, we collected data from 29 (62% of the population) officers in Kenora, 7 (37% of the population) officers in Eagle Lake, and 3 (38%) officers in Couchiching.

Indigenous (n=18) and non-Indigenous (n=21) T3PS police officers (N = 39) serving Kenora, Ontario, Couchiching First Nation, Ontario, and Eagle Lake Indian Reserve no. 27, Ontario participated in the study. Police participants were on average 40 years old (SD = 8.08 years) with an average of 13 years of service (SD = 8.44 years). Participants primarily identified as male (69.2%) and Constables (84.6%). Most participants were from T3PS' Kenora Detachment (74.4%). See Table 1 for a summary of the demographic characteristics.

Table 1

Demographic Characteristics of Participants (Mean ± Standard Deviation)

	Variables	*Mean* ± Standard Deviation	n (%)
Total sample of Treaty Three Police Services police officers (N=39)	Age (years)	40.23 ± 8.07	-
	Male	-	69.2% (n=27)
	Female	-	30.8% (n=12)
	Years of Service	13.62 ± 8.44	-
	Sergeants	-	15.4% (n=6)
	Constables	-	84.6% (n=33)
	T3PS Kenora	-	74.4% (n=29)
	T3PS Eagle Lake	-	17.9% (n=7)
	T3PS Couchiching	-	7.7% (n=3)
Indigenous Treaty Three Police Services police officers (n=18)	Age (years)	40.87 ± 8.24	-
	Female	-	28% (n=5)
	Male	-	72% (n=13)
	Years of service	16.56 ± 8.71	-
Non-Indigenous Treaty Three Police Services police officers (n=21)	Age (years)	38.33 ± 7.46	-
	Female	-	33% (n=7)
	Male	-	67% (n=14)
	Years of service	11.10 ± 7.52	-

4.2 Objective (1) Determining the existing mental health status of Indigenous and non-Indigenous police officers serving T3PS.

To determine the mental health status of Indigenous and non-Indigenous T3PS officers, mental health exposures were quantified through work-related CI exposure and non-work-related brief trauma exposure.

4.2.1 (a) Mental Health Exposures: Critical Incidents

All T3PS officers experienced CI exposures throughout the duration of their career; officers reported a median of 120 (IQR=160.75) CIs; Indigenous police officers reported

experiencing a median of 129 CIs (IQR=233.5) compared to non-Indigenous police officers who reported experiencing a median of 165 CIs (IQR=188.5). Overall, a minimum of 30 CI exposures and a maximum of 613 CI exposures were reported (Min= 30, Max =613). See Table 2 for the frequency of CIs reported by T3PS officers.

Table 2

T3PS Police Officers' Frequency (#) of Critical Incidents Reported in the CIHQ

	Median	Minimum	Maximum	Interquartile Range
Total sample of T3PS police officers (N=34)	120	-	-	160.75
Indigenous T3PS police officers (n=16)	129	30	613	233.5
Non-Indigenous T3PS police officers (n=18)	165	54	624	188.5

Note. Some participants declined to respond to all questions; therefore n < 39 for some questionnaires. This table reports the frequency of the number of CIs reported within the entirety of an officer's career.

The most frequently reported CI, which was experienced by all T3PS police participants, was responding to a call involving a "sexually assaulted adult." On average, officers reported calls-to-action involving a "sexually assaulted adult" a median of 15 times (IQR=46) throughout the duration of their career until the point of data collection. Specifically, 35.3% reported the incident 1-9 times, 17.6% reported the incident 10-20 times, 11.8% reported the incident 21-50 times, and 35.3% reported the incident 51+ times (see Table 2 and 2.1). The second most frequently reported CI was experiencing the "body of someone recently dead." On average, officers reported this incident a median of 15 times (IQR=30) throughout the duration of their career up until the point of data collection. Specifically, 2.9% reported the incident 0 times, 32.4% reported the incident 1-9 times, 29.4% reported the incident 10-20 times, 20.6% reported the incident 21-50 times, and 14.7% reported the incident 51+ times (see Table 2 and 2.1). The

following CIs: having a “colleague killed intentionally,” having a “colleague killed

Total sample of T3PS police officers (N=34)	Frequency

accidentally,” and being “shot but not injured in the line of duty” had the lowest frequencies, with no participants reporting these events. The CI with the second lowest frequency was being “taken hostage”, with 91.2% of T3PS participants reporting the event 0 times, and 8.8% reporting the event 1-9 times (see Tables 2 and 2.1).

When considering the impact (severity) of a CI regardless of frequency (amount) exposure on an individual’s mental health, experiencing a “colleague killed intentionally” and “being shot at” had the highest severity rating (3.82). Additionally, experiencing a “colleague killed accidentally” had the second highest severity rating (3.79), meaning T3PS officers would find it *extremely difficult to cope with this type of incident*. The CI with the lowest severity rating regardless of frequency exposure was having their “life threatened by a dangerous animal” (1.88). Additionally, experiencing a “sexually assaulted adult” and experiencing a “life-threatening natural disaster” had the second lowest severity rating (2.26), meaning T3PS officers would *not find it difficult to cope with this type of incident.* See Tables 2 and 2.1 for overall frequency and severity of CI exposures as reported by T3PS police officer participants.

When comparing the frequency and severity of CI’s reported by T3PS participants, it was found that the CI’s most frequently reported, scored the lowest in severity. For example, calls-to-action involving a “sexually assaulted adult” was reported a median of 15 times and officers would *not find it difficult to cope with this type of incident.* Similarly, the CI’s least frequently reported, such as having a “colleague killed intentionally” scored the highest in severity, meaning officers would find it *extremely difficult to cope with this type of incident* (see Table 2

Abbreviated Items	0	1-9	10-20	21-50	51+	Severity rating
Colleague killed intentionally	100.0	0.0	0.0	0.0	0.0	3.82
Being shot at	91.2	8.8	0.0	0.0	0.0	3.82
Colleague killed accidentally	100.0	0.0	0.0	0.0	0.0	3.79
Mistake that injured / killed a bystander	91.2	8.8	0.0	0.0	0.0	3.71
Shot but not injured in the line of duty	100.0	0.0	0.0	0.0	0.0	3.68
Taken hostage	94.1	5.9	0.0	0.0	0.0	3.65
Someone killed or injured in the line of duty	41.2	41.2	8.8	2.9	5.9	3.53
Badly beaten child	35.3	47.1	14.7	2.9	0.0	3.50
Threatened with a gun	47.1	50.0	2.9	0.0	0.0	3.47
Mistake that injured or killed colleague	94.1	5.9	0.0	0.0	0.0	3.44
Trapped in life-threatening situation	44.1	50.0	5.9	0.0	0.0	3.41
Experienced a sexually assaulted child	8.8	50.0	14.7	14/7	11.8	3.38
Experienced loved ones threatened	20.6	55.9	5.9	11.8	3.29	3.29
Seriously injured intentionally	73.5	23.5	0.0	0.0	2.9	3.21
Colleague injured intentionally	52.9	35.3	11.8	0.0	0.0	3.18
Severely neglected child	17.6	41.2	20.6	2.9	17.6	3.18
Mutilated body or human remains	35.3	47.1	5.9	2.9	8.8	3.18
Exposed to AIDS or other diseases	23.5	67.6	5.9	0.0	2.9	3.12
Seeing someone dying	8.8	67.6	8.8	14.7	0.0	2.94
Seriously injured accidentally	50.0	41.2	8.8	0.0	0.0	2.88
Threatened with a knife or other weapon	23.5	50.0	20.6	2.9	2.9	2.82
Life threatened by toxic substance	67.6	26.5	2.9	0.0	2.9	2.71
Decaying corpse	20.6	55.9	14.7	5.9	2.9	2.62
Colleague injured accidentally	29.4	67.6	2.9	0.0	0.0	2.41
Life-threatening man-made disaster	67.6	29.4	2.9	0.0	0.0	2.38
Making a death notification	8.8	58.8	20.6	8.8	2.9	2.38
Life-threatening high-speed chase	35.3	55.9	0.0	5.9	2.9	2.35
Animal neglected, tormented or killed	8.8	58.8	14.7	8.8	8.8	2.35
Badly beaten adult	0.0	44.1	14.7	14.7	26.5	2.29
Body of someone recently dead	2.9	32.4	29.4	20.6	14.7	2.29
Life-threatening natural disaster	67.6	29.4	2.9	0.0	0.0	2.26
Sexually assaulted adult	0.0	35.3	17.6	11.8	35.3	2.26
Life threatened by dangerous animal	50.0	41.2	8.8	0.0	0.0	1.88

Table 2. *T3PS Police Officers' Frequency (%) of Critical Incidents from the CIHQ Items Ordered by Mean Severity Rating*

Note. AIDS = acquired immunodeficiency syndrome. The order of this table differs from the original order provided to T3PS participants.

When looking at descriptive data for Indigeneity, Indigenous T3PS officers reported calls-to-action involving a “sexually assaulted adult” a median of 25 times (IQR=46) throughout the duration of their career until the point of data collection; compared to non-Indigenous officers who reported the CI 15 times (IQR=48). Treaty Three Police Service officers also reported a high frequency for calls-to-action involving a “badly beaten adult”, with Indigenous and non-Indigenous officers experiencing the CI a median of 15 times (IQR=46; IQR=48). See Table 2.3 for descriptive data of Indigeneity for the frequency (#) of CIs within the CIHQ experienced by T3PS officers.

Table 2.1

Comparing Indigenous and Non- Indigenous T3PS Police Officers' Descriptive Statistics for

Abbreviated Items	Indigenous T3PS officers (n=16) **Median**	Non-Indigenous T3PS officers (n=18) **Median**	Indigenous T3PS officers (n=16) **Interquartile Range**	Non-IndigenousT3PS officers (n=18) **Interquartile Range**

Frequency (#) of CIs within the CIHQ

1. Mistake injuring / killing a colleague	0	0	1	5
2. Colleague killed intentionally	0	0	1	1
3. Mistake injuring / killing a bystander	0	0	1	5
4. Colleague killed accidentally	0	0	1	1
5. Taken hostage	0	0	1	5
6. Colleague injured intentionally	0	3	35	5
7. Experienced loved ones threatened	5	5	51	51
8. Being shot at	0	0	5	5
9. Badly beaten child	5	3.5	15	15
10. Someone killed / injured in the line of duty	5	5	315	51
11. Experienced sexually assaulted child	5	5	51	51
12. Exposed to AIDS or other diseases	5	5	15	51
13. Severely neglected child	5	5	51	51
14. Trapped in life-threatening situation	5	3	15	5
15. Threatened with a gun	4	1	5	5
16. Seriously injured intentionally	0	0	5	51
17. Colleague injured accidentally	5	5	15	5
18. Threatened with knife/ weapon	5	5	51	35
19. Life-threatening man-made disaster	0	0	5	5
20. Life threatened by toxic substance	0	0	5	51
21. Shot but not injured in line of duty	0	0	1	1
22. Life-threatening natural disaster	0	0	5	5
23. Seeing someone dying	5	5	35	35
24. Seriously injured accidentally	3.5	0	15	15
25. Making a death notification	5	5	35	51
26. Life-threatening high-speed chase	5	5	35	5
27. Mutilated body or human remains	5	5	51	51
28. Sexually assaulted adult	25	15	46	48
29. Badly beaten adult	15	15	46	48
30. Life threatened by dangerous animal	0	5	15	15
31. Decaying corpse	5	5	51	35
32. Animal neglected, tormented, killed	5	5	51	51
33. Body of someone recently dead	15	15	47	51

Note. Some participants declined to respond to all questions therefore n<39 for some questionnaires. AIDS = acquired immunodeficiency syndrome.

4.2.1 (b) Mental Health Exposures: Brief Trauma

Non-work-related trauma exposure was measured through the Brief Trauma Questionnaire (BTQ). Overall, T3PS police officers were exposed to a median of 3 (IQR=3) non-work-related trauma exposures (events) within their lifetime (range= 0-7), where 0 is the lowest exposures an individual can report and 10 is the highest. When looking at descriptive data for Indigeneity,

Indigenous T3PS officers reported experiencing a median of 4 (IQR=3) non-work-related exposures, and non-Indigenous T3PS officers reported experiencing a median of 3 (IQR = 3) non-work-related exposures. See Table 3 for T3PS police officer's BTQ descriptive statistics.

Table 3

T3PS Police Officers' Descriptive Statistics for Non-Work-Related Brief Trauma (# of events) experienced from the BTQ

	Median	Minimum	Maximum	Interquartile Range
Total sample of T3PS police officers (N=32)	3	-	-	3
Indigenous T3PS officer's (n=16)	4	0	7	3
Non-Indigenous T3PS officer's (n=16)	3	0	7	3

T3PS officer's exposure to highest reported non-traumatic event was "being in a life-threatening event where you were seriously injured or feared you might be seriously injured or killed" which was experienced by 59% of T3PS police participants. The second highest reported event was "being in a major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, or chemical spill," which was experienced by 47% of T3PS officers (see Table 3). Furthermore, three traumatic events within the BTQ: "being in a serious car accident or serious accident at work / somewhere else", "before the age of 18 being physically punished or beaten by a parent, caretaker, or teacher where you were frightened, thought you would be injured, or were injured;" and "being attacked, beaten, or mugged by anyone" were all experienced by 41% of T3PS officers. The lowest reported non-work-related traumatic event was "serving in a war zone / noncombat job with war-related casualties" which was experienced by 0% of T3PS officers. The second lowest reported event was "having a life-threatening illness such as cancer, a heart attack, leukemia, AIDS, multiple sclerosis, etc." which was experienced

by 3% of T3PS officers. See Table 3.1 for T3PS police officers' non-work-related brief trauma exposure.

If the participant reported "yes" to experiencing a non-work-related traumatic event, they were asked to report on additional DSM-IV A Criterion: A1 (*if the event happened, did you think your life was in danger or you might be seriously injured*), and A.2 (*if the event happened, were you seriously injured*). The highest reported A.1 criteria met by T3PS officers was "being in any other situation in which you were seriously injured, or have you ever been in any other situation in which you feared you might be seriously injured or killed", which was experienced by 43.7% of T3PS who reported "yes" to being exposed (59%); 18.7% of those who met A.1 criteria also met A.2 criteria (see Table 3.1). Furthermore, 21.8% of the sample met A.1 and A.2 criteria for "being attacked, beaten, or mugged", and 18.7% of the sample met A.1 and A.2 criteria for "experiencing a loved one dying violently, where they feared they would be injured / killed".

Table 3.1

Total T3PS Police Officers' Non-Work-Related Brief Trauma Exposure (%) as a Function of Trauma Type and DSM-5 Stressor Criterion

	DSM-IV A Criterion (%)			
Abbreviated Items	Exposure	No Exposure	Met A.1 only	Met A.1 & A.2
War-zone exposure	0	100	0.0	0.0
Serious accident	41	59	31.2	12.5
Natural/technological disaster	47	53	31.2	3.1

Life-threatening illness	3	97	6.2	0.0
Physically punished	41	59	9.3	9.3
Attacked, beaten, or mugged	41	59	25.0	21.8
Sexual assault	22	78	9.3	0.0
Other life-threatening event	59	41	43.7	18.7
Violent death of loved one	38	62	0.0	0.0
Someone seriously injured	34	66	3.1	3.1

Note. Some participants declined to respond to all questions therefore n<39 for some questionnaires.

Descriptive data looking at Indigeneity within subgroups from the BTQ: *life threat or serious injury* for events 1-3 and 5-7*; life threat* for event 4; *serious injury* for event 8; and *"has this ever happened to you?"* for events 9 and 10 was conducted. The non-work-related traumatic events experienced by Indigenous T3PS officers most frequently (50%) were being in a "serious car accident, or a serious accident" and being in a "major natural or technological disaster." The non-work-related traumatic event experienced by non-Indigenous T3PS most frequently (50%) was "before age 18, being physically punished or beaten by a parent, caretaker, or teacher so that: you were very frightened; or you thought you would be injured; or you received bruises, cuts, welts, lumps or other injuries." Furthermore, the event with the highest difference in exposure between Indigenous and non-Indigenous T3PS officers was "has anyone ever made or pressured you into having some type of unwanted sexual contact?" which was experienced by 40% of Indigenous T3PS officers and 7% of non-Indigenous T3PS officers, meaning there was a 33% higher exposure rate within Indigenous T3PS officers.

Table 3.2

Indigenous and non-Indigenous T3PS participant's BTQ Scores (%) Categorized by Subscales

Abbreviated Items	Indigenous T3PS officers' exposure % (n=16)	Non-Indigenous T3PS officers' exposure % (n=16)
Life threat or serious injury		
1. War-zone exposure	0	0

2. Serious accident	50	31
3. Natural / technological disaster	50	44
5. Physically punished	31	50
6. Attacked beaten, or mugged	56	25
7. Sexual assault	40	7
Life threat		
4. Life-threatening illness	6	0
Serious Injury		
8. Other life-threatening event	69	50
"Has this ever happened to you?"		
9. Violent death of loved one	50	19
10. Someone seriously injured	25	50

Note. Some participants declined to respond to all questions therefore n < 39 for some questionnaires.

4.3 Objective (1) determining the existing mental health status of Indigenous and non-Indigenous police officers serving T3PS in NWO.

To further analyze the mental health status of T3PS officers, adverse mental health outcomes were assessed. PTSD was quantified through the PCL5. The PCL5 was administered, scored, and summated to assess PTSD risk within Indigenous and non-Indigenous T3PS officers (see Table 4).

4.3.1 Adverse Mental Health Outcomes: Post-Traumatic Stress Disorder

Within the previous month (during the data-collection period) participating T3PS officers' median symptom severity score was 20 (IQR=56), where 0 is the lowest symptom severity an individual can report and 80 is the highest. When analyzing descriptive data for Indigeneity, Indigenous T3PS officers had a higher median symptom severity score (*Md* = 29; IQR=54) in comparison to non-Indigenous officers (*Md* = 13; IQR=42) by 16 points, indicating that our sample of Indigenous T3PS officers are at higher risk for developing PTSD compared to non-Indigenous police officers.

Table 4.

T3PS Police Officers' Total Symptom Severity Scores from the PCL-5

	Median	Minimum	Maximum	Range
Total sample of T3PS police officers (N=39)	20	-	-	56
Indigenous T3PS police officers (n=18)	29	2	56	54
Non-Indigenous T3PS police officers (n=21)	13	0	42	42

In addition to the total symptom severity score, a mean score was computed for each subscale within the PCL-5: *re-experiencing* (items 1-5 – max score = 20), *avoidance* (items 6-7 – max score = 8), *negative alterations in cognition and mood* (items 8-14 – max score = 28), and *hyper-arousal* (items 15-20 – max score = 24). When examining descriptive for Indigeneity, Indigenous T3PS officers had the highest mean score within the *avoidance* subscale (M=1.72; SD=1.24) and non-Indigenous T3PS officers had the highest mean score within the *hyper-arousal* subscale (M=0.87; SD=1.08).

Table 4.1

T3PS Police Officers' Scores for PCL-5 Subscale

Total Sample of T3PS police officers (N=39)	Mean Score	Standard Deviation
Re-experiencing	0.88	0.98

Avoidance	1.67	1.19
Negative alterations in cognition and mood	1.10	1.15
Hyper-arousal	1.18	0.86
Indigenous T3PS police officers (n=18)		
Re-experiencing	1.15	1.06
Avoidance	1.72	1.24
Negative alterations in cognition and mood	1.51	1.30
Hyper-arousal	1.54	1.16
Non-Indigenous T3PS police officers (n=21)		
Re-experiencing	0.65	0.87
Avoidance	0.67	0.91
Negative alterations in cognition and mood	0.74	0.86
Hyper-arousal	0.87	1.08

Note. Mean scores higher than 2 indicate likely risk of PTSD symptom.

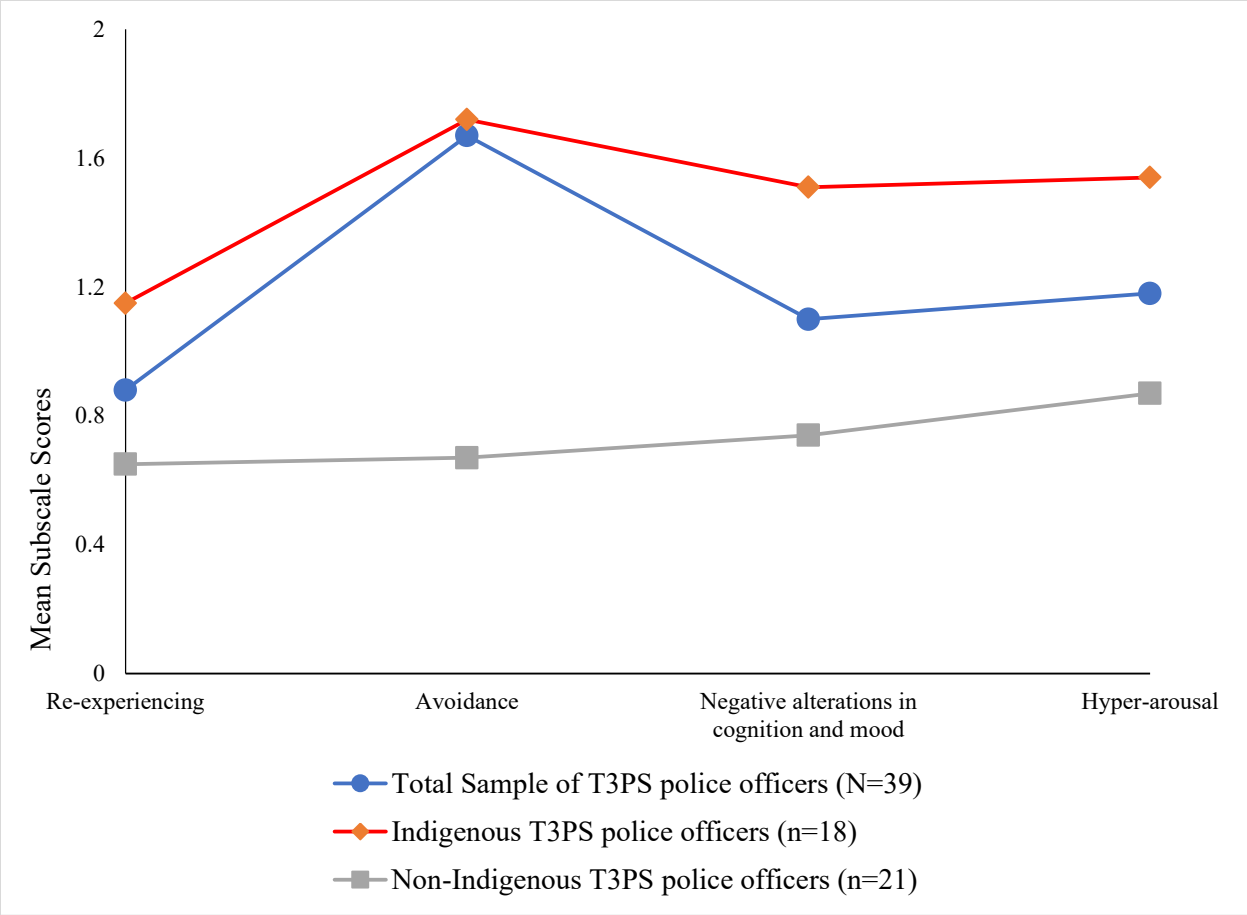

Figure 1. *T3PS Police Officer's Mean Sores for PCL-5 Subscale*

To fully assess T3PS officer's PTSD symptom experiences, their PCL-5 scores were stratified into 4 levels associated with increased risk for PTSD: no risk (0), low risk (1-19), moderate risk (20-39), and high risk (40-80). When assessing descriptive data for Indigeneity, it was identified that 0 (*none*) Indigenous T3PS participants had no risk of PTSD, 33% had *low* risk (Md= 12.5; IQR=17), 39% had *moderate* risk (Md=28; IQR=22)), and 28% had *high* risk (Md=47; IQR=16); in comparison to non-Indigenous participants where 5% had 0 (*none*) risk, 57% had *low* risk (Md=6; IQR=16), 33% had *moderate* risk (Md=26; IQR=11), and 5% had *high* risk (Md=42). See Table 4.2 and Figure 2 for the risk of developing PTSD among Indigenous and non-Indigenous T3PS police participants.

Table 4.2

Indigenous and non-Indigenous T3PS Officer's Risk of PTSD

	None (0)	Low (1-19)	Moderate (20-39)	High (40-80)
Indigenous T3PS police officers (n=18)				
n	0	6	7	5
Median	0	12.5	28	47
Minimum	0	2	12	40
Maximum	0	19	34	56
Range	0	17	22	16
Non-Indigenous T3PS police officers (n=21)				
n	1	12	7	1
Median	0	6	26	42
Minimum	0	1	21	42
Maximum	0	17	32	42
Range	0	16	11	0

Note. This table provides frequency of each respective classification of PTSD risk (none, low, moderate, and high risk)

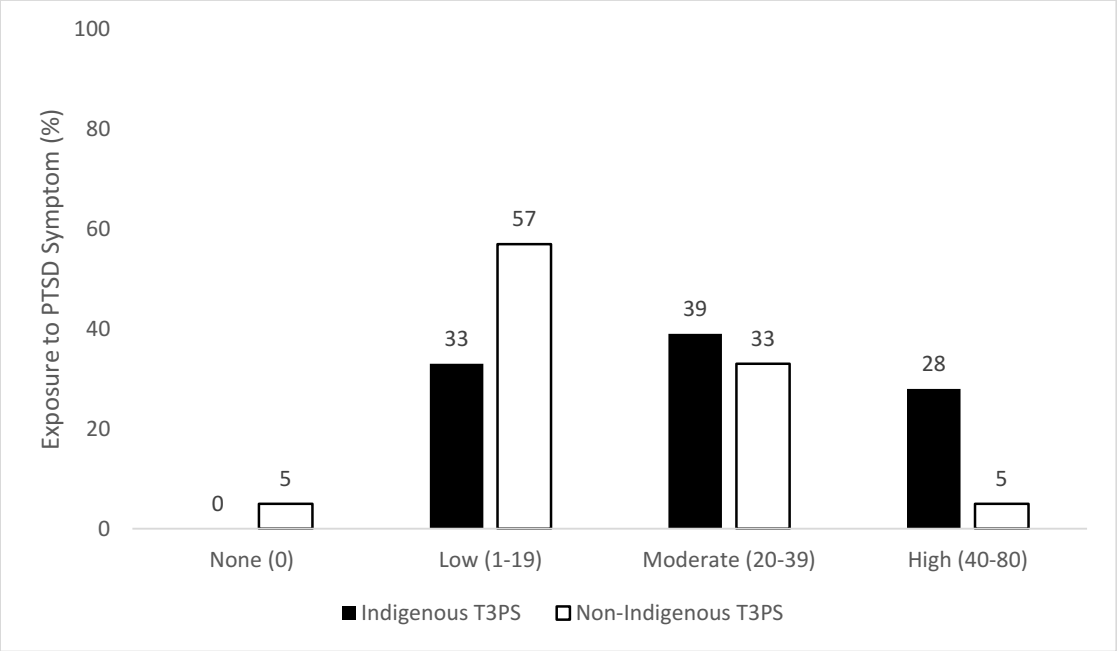

Figure 2. *Indigenous and non-Indigenous T3PS Officer's Risk of PTSD by Percentage*

Table 4.2 and Figure 2 report the number of participants experiencing *none, low, moderate* and *high* risk of PTSD as a percentage comparing Indigenous and non-Indigenous T3PS officers. Based on risk, Indigenous T3PS participants were more likely to develop PTSD in comparison to non-Indigenous T3PS participants. Indigenous participants experienced equal dispersion between *low, moderate* and *high* risk of PTSD in comparison to non-Indigenous participants where the majority experienced *low* risk of PTSD.

Overall, all T3PS police participants experienced work-related and non-work related mental health exposures through CI exposure and brief trauma exposure, as well as adverse mental health outcomes through PTSD risk. See Table 4.3 for trauma exposure and PTSD symptoms experienced by Indigenous and non-Indigenous T3PS officers, which encompasses their current mental health status for the purpose of this research study. Table 4.3 represents median and interquartile range for trauma exposure and PTSD risk. It should be noted that different scales were used when measuring the CIHQ, BTQ, and PCL-5, although all scales can be seen together in Table 4.3 to encapsulate mental health exposures and adverse mental health outcomes

4.3.2 Trauma Exposure and PTSD

Table 4.3

Indigenous and non-Indigenous T3PS Officer's Trauma Exposure and Experience of PTSD Symptoms.

	Median	Interquartile range	Number	Percent
Total sample of T3PS police officers				
CIHQ	120	160.75		
BTQ	3	3		
PCL-5	20	56		
Experienced 1 or more traumatic event				
Meet "likely" PTSD				
Indigenous T3PS police officers				
CIHQ	129	233.5		
BTQ	4	3		
PCL-5	29	54		
Experienced 1 or more traumatic event			18	100
Meet "likely" PTSD			7	39
Non-Indigenous T3PS police officers				
CIHQ	165	188.5		
BTQ	3	3		
PCL-5	13	42		
Experienced 1 or more traumatic event			20	95
Meet "likely" PTSD			1	4.8

Note. Some participants declined to respond therefore n < 39 for some questionnaires.

4.4 *Objective (2) determining the potential barriers to accessing mental health supports experienced by Indigenous and non-Indigenous T3PS police officers*

To identify potential barriers to accessing mental supports as experienced by Indigenous and non-Indigenous T3PS officers, the perception of self-stigma associated with seeking help was assessed. To quantify this, the (SSOSH) scale was administered.

4.4.1 Barriers to Accessing Mental Health Supports: Self-Stigma of Seeking Help

Overall, T3PS officers reported a median score of *disagree* (*Md*= 2.9; IQR=0.33) indicating that they would not experience stigma or face problems if/when seeking mental health

supports. When assessing descriptive data for Indigeneity, Indigenous (*Md*=2.8; IQR= 0.3) and non-Indigenous (*Md*=3; IQR= 0.45) T3PS officers also reported *disagree* for experiencing self-stigma associated with seeking mental health support (see Table 5). This suggests that overall Indigenous and non-Indigenous officers would not experience stigma or face problems if/when seeking mental health supports.

Table 5

T3PS Police Officer's Descriptive Statistics for Overall SSOSH Scale Score

	Median	Minimum	Maximum	Interquartile Range
Total sample of T3PS officers (N=36)	2.9	-	-	0.33
Indigenous officers (n=17)	2.8	2.5	3.3	0.3
Non-Indigenous officers (n=19)	3	2.3	3.5	0.45

In addition to the T3PS participant's overall SSOSH score, it was identified that Indigenous officers scored a median response of *disagree* for each question within the SSOSH scale, except when reporting "if I went to a therapist, I would be less satisfied with myself" and "my self-confidence would stay the same if I sought professional help for a problem I couldn't solve," in which they scored a median of *agree and disagree* equally. Whereas non-Indigenous T3PS officers scored a median response of *disagree* for each question within the SSOSH scale (see Table 5.1).

Table 5.1

Indigenous and non-Indigenous T3PS Officers' Descriptive Statistics for the Self- Stigma of Seeking Help Scale (SSOSH)

SSOSH Abbreviated Items	Indigenous T3PS officers (n=17) **Median**	non-Indigenous T3PS officers (n=19) **Median**	Indigenous T3PS Officers (n=17) **Range**	non-Indigenous T3PS officers (n=19) **Range**
1. I would feel inadequate if I went to a therapist for psychological help	2	2	2	2
2. My self-confidence would not be threatened if I sought professional help	2	2	4	2
3. Seeking psychological help would make me feel less intelligent	2	2	1	2
4. My self-esteem would increase if I talked to a therapist	2	3	2	3
5. My view of myself would not change just because I made the choice to see a therapist	2	2	4	2
6. It would make me feel inferior to ask a therapist for help	2	2	3	2
7. I would feel okay about myself if I made the choice to seek professional help	2	2	3	2
8. If I went to a therapist, I would be less satisfied with myself	3	2	3	2
9. My self-confidence would stay the same if I sought professional help for a problem I couldn't solve	3	2	4	2
10. I would feel worse about myself if I could not solve my own problems	2	2	2	2

Note. Some participants declined to respond therefore n < 39 for some questionnaires.

Chapter 5: DISCUSSION

5.1 Overview

This research aimed to identify Indigenous and non-Indigenous T3PS officers' mental health status by assessing mental health exposures through frequency and severity of work-related CIs, and non-work related traumatic events, as well as adverse mental health outcomes through PTSD risk. Potential barriers to accessing mental health supports were also assessed through perceived self-stigma associated with seeking help. The data obtained can be used to determine the impact these variables have on the mental health status of Indigenous and non-Indigenous T3PS officers working in rural NWO communities and similar contexts.

5.2 Summary of Findings

When assessing CI exposure, it was identified that T3PS officers reported a median of 120 (IQR=160.75) CIs throughout the duration of their career, until the point of data collection, indicating CI exposure was high among this sample of police officers (Chopko et al., 2015; Moad et al., 2011; Weiss et al., 2010). When assessing descriptive data for Indigeneity, non-Indigenous T3PS officers (Md=129; IQR=233.5) reported a median of 36 more CIs in comparison to Indigenous (Md=165; IQR=188.5) T3PS officers. The highest frequency of CI exposures reported by Indigenous and non-Indigenous officers was experiencing a "sexually assaulted adult," with Indigenous officers experiencing the CI a median of 15 more times (see Table 2). The number of non-work-related traumatic events experienced by T3PS officers was also found to be high, with 91% experiencing at least one traumatic event outside of their career. In terms of PTSD risk, it was identified that 100% of Indigenous T3PS and 95% of non-Indigenous T3PS reported experiencing one or more PTSD symptom, with 39% of Indigenous officers and 4.8% of non-Indigenous officers meeting "likely" PTSD. The highest frequency for

PTSD among Indigenous T3PS officers was a score of 56, whereas the highest frequency for PTSD among non-Indigenous T3PS officers was a score 42, with a cut-off score of 31-33 indicating probable PTSD (National Center for Post-Traumatic Stress Disorder, 2022; see Table 4). This suggests that Indigenous and non-Indigenous officers are at risk of developing and / or having PTSD, although Indigenous officers appear to be more at risk. When assessing self-stigma associated with seeking help, it was identified that overall, Indigenous and non-Indigenous T3PS officers would not experience stigma or face problems if / when seeking mental health support.

5.3 Discussion

5.3.1 Objective (1) determining the existing mental health status of Indigenous and non-Indigenous police officers serving T3PS in NWO

Several important findings emerged from the current study. Consistent with prior research (Bell & Eski, 2015; Soomro, 2019), results from our study indicated that T3PS officers experience high rates of trauma exposure and PTSD risk.

5.3.1 (a) Work-related critical incident exposure

Critical incidents are work-related trauma experiences that first responders are commonly exposed to, which may adversely impact their mental health (Wagner et al., 2020). The (CIHQ) was administered to quantify CI exposure within Indigenous and non-Indigenous T3PS officers. Critical incident exposure findings within our sample of T3PS officers indicated that frequency and severity results were similar to Weiss et al. (2010) who administered the CIHQ to 747 police officers, serving three police jurisdictions (New York, New York, Oakland and San Jose, California). They determined that police officers from smaller jurisdictions likely experience substantially fewer CIs. The police jurisdiction (T3PS) studied within this research study had a

total of 74 active duty-officers at the time of data collection, and high CI exposure was identified. Additionally, Weiss et al. (2010) had a 62% response rate, whereas this research had a 55% response rate. More research must be conducted to determine if agency size has an impact on CI exposure. Our results support the contention of Weiss et al. (2010) that events infrequently experienced by officers are perceived as more severe than events commonly experienced (see Table 2). The way in which frequency and severity of CI exposures were reported among T3PS officers followed that of Weiss et al. (2010) as the most frequently reported CIs were reported lowest in severity (see Table 2). For example, T3PS officers reported the highest overall frequency and the lowest overall severity for calls-to-action involving a "sexually assaulted adult." An important finding that emerged from this study was that all T3PS officers reported calls-to-action involving a "sexually assaulted adult" a minimum of 1, and median of 15 (IQR=46) times throughout the duration of their career until the point of data collection.

Non-Indigenous police officers reported a higher overall median frequency to the amount of CIs reported (see Table 2). More research is needed to understand what caused this difference. A potential reason for this finding could be that ethnic minorities under-report trauma experiences / exposures that involve people they have close relationships with, which is more likely to be true for Indigenous T3PS officers working in rural Indigenous communities (Roberts et al., 2011).

Indigenous T3PS officers responded to calls-to-action involving a "sexually assaulted adult" a median of 15 more times (see Table 2.1) in comparison to non-Indigenous T3PS officers. Additional research is needed to better understand why there is a difference in the number of calls-to-action involving a "sexually assaulted adult" between Indigenous and non-Indigenous T3PS officers. A possible reason for this finding is that Indigenous peoples are more

likely to be impacted by calls-to-action involving sexual and physical assault due to their historical background (i.e., intergenerational trauma) therefore they may have a better memory recall to events revolving sexual and physical assault (Hunter, 2017; Sevillano et al., 2022). In addition, literature shows that Indigenous peoples favour wholly autonomous Indigenous police forces, and as a result may favour Indigenous officers when in mental-health crises involving sexual assault (The Government of Canada, 2016).

Some CIs assessed within this study, "having a colleague killed intentionally", "having a colleague killed accidentally", and "being shot at" were reported to have occurred 0 times within our sample of T3PS officers but were scored the highest in severity. A reason for this finding may be because police officers believe that they are expected to show physical and emotional courage, and that they must always "have their colleagues back" by protecting them at all costs even if it risks themselves (Bell & Eski, 2016; Loftus, 2009). Additionally, within small rural NWO communities, police officers often know each other personally outside of the work place. Further, there may be familial (or childhood friend) connections within police jurisdictions for officers working in their home community. This is also common for inter-generational police officers within a family (Falcone et al., 2002). As a whole, T3PS officers experienced high exposure to sexual assault in comparison to the general population, and other police samples (Chopko et al., 2015; Moad et al., 2011; Weiss et al., 2010). Going forward, it is important to investigate the impact that mental health training, education, and supports tailored towards traditional/cultural healing methods have on Indigenous and non-Indigenous officers as well as Indigenous community members.

5.3.1 (b) Non-work related brief trauma exposure

For the purpose of this research, non-work-related brief trauma exposure was measured through the Brief Trauma Questionnaire (BTQ). It was found that of the 10 traumatic events assessed, T3PS officers reported a median of 3 throughout their life-time. Overall, non-work related trauma exposure was found to be high (see Table 3.2) and consistent with other police populations (Hung et al., 2019; Soomro & Yanos, 2018; Wozniak, 2020).Within our sample of T3PS officers, "being in a life-threatening event where you were seriously injured or feared you might be seriously injured or killed" was the event experienced most frequently (59%), followed by "being in a major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, or chemical spill" which was experienced by 47% of T3PS officers. Reasons for this may in part be due to the harsh conditions experienced within the geographical location of NWO. For example, during 2021 wildfires forced evacuations from several NWO Indigenous communities, burning more hectares of land in the province than any other year in history (Vis, 2021). The BTQ was not designed to include specificity around the traumatic events asked about (i.e., age at trauma exposure, or what the event was/ if it led to injury). Additionally, the question posed in the BTQ involving life-threatening events offered a high chance of ambiguity in answers among participations, which could in part explain the high frequency in which these events were experienced by T3PS officers. When stratifying the analysis, it was identified that 50% of Indigenous officers experienced "being in a serious car accident or serious accident at work / somewhere else", and 50% of non-Indigenous officers experienced "before the age of 18 being physically punished or beaten by a parent, caretaker or teacher where you were frightened, thought you would be injured, or were injured." Further analysis must be conducted to better understand why the frequency was so high for these events. A specific finding that stood out

within our analysis of the BTQ was one event asked about: “Has anyone ever made or pressured you into having some type of unwanted sexual contact?” which had a large discrepancy in its response, as it was experienced by 40% of Indigenous T3PS officers and 7% of non-Indigenous T3PS officers, meaning there was a 33% higher exposure rate within Indigenous T3PS officers (see Table 3.2). This finding corresponds reports that Indigenous peoples having a higher prevalence of sexual assault in comparison to non-Indigenous peoples. This high exposure to non-work-related personal sexual assault exposure experienced by Indigenous police officers may have implications for their work and mental health. Sexual-assault is an experience of trauma, and trauma can impact an individual in a variety of ways; for example, victims may experience the impact of sexual assault physically and psychologically long term, which may adversely impact their mental health (Chivers-Wilson, 2006). When victims of trauma are the ones responsible for responding to calls-to-action involving trauma, it can have a negative impact on their mental health, the police jurisdiction itself, as well as the community members in which these individuals serve and protect. A significant number of sexual assault victims experience PTSD, with sexual assault being the most frequent cause of PTSD in women (National Centre for Post-Traumatic Stress Disorder, 2005). Therefore, it is critical to conduct more research on work-related and non-work-related exposures to sexual assault to better understand the impact it has on police mental health as a whole.

5.3.1 (c) Post-traumatic stress disorder

Post-traumatic stress disorder is a significant public health problem that impacts police populations (APA, 2020). In addition to frequent exposure to work-related traumatic events, first responders in rural areas experience significantly higher levels of stress when working the frontline (Leung & Shen, 2022). Amongst the high prevalence and repeated exposure to CIs,

T3PS officers also report a high risk of PTSD. Our findings indicate that the median overall symptom severity score within our sample was 20 (based on a range from 0-80; see Table 4), where a cut-off score of 31-33 indicated probable PTSD based upon current psychometric work (National Center for Post-Traumatic Stress Disorders, 2022). Indigenous T3PS officers experienced a higher risk of developing PTSD in comparison to non-Indigenous T3PS officers, indicating that Indigenous T3PS officers are at an increased risk of developing and/or suffering from PTSD risk (see Table 4). In terms of PTSD risk, we found that within our sample of Indigenous T3PS officers, 5% were experiencing high risk, 7% were experiencing moderate risk, 6% were experiencing low risk, and 0% were experiencing no risk. In terms of exposure, these results indicate that T3PS officers are at a high risk of developing PTSD. Further, PCL-5 subscale mean scores found that *Avoidance* (i.e., avoiding reminders such as places, people, sounds, or smells of the traumatic event) was scored the highest among Indigenous T3PS officers whereas *Re-experiencing* (i.e., reliving the traumatic event through flashbacks, memories, or dreams including physical symptoms such as heart palpitations or sweating) was scored the highest within our sample of non-Indigenous T3PS officers. A reason for the high risk of PTSD within our sample could be due to their constant exposure to CIs, specifically re-experiencing severely sexually and physically assaulted victims (National Centre for Truth and Reconciliation, 2015). Unfortunately, there are very few studies investigating the prevalence of PTSD within Indigenous peoples residing in rural NWO communities. Existing estimates of the prevalence of mental health disorders experienced by Indigenous peoples in Canada are often based on service utilization numbers (Bellamy & Hardy, n.d). However, since Indigenous peoples are less likely to seek services, and there is limited access to existing services within rural Indigenous NWO communities, it is difficult to estimate the actual rates of PTSD within Indigenous populations

(Bellamy & Hardy, n.d). Additionally, demographic risk factors for PTSD include female gender, lower levels of education, and being from an ethnic minority (Halligan & Yehuda, 2000). Demographic risk factors for PTSD may function as risk for trauma exposure, which is important to note as the occurrence of trauma is influenced by broader social factors experienced within rural Indigenous communities that T3PS officers serve; for example: poverty, lack of access to resources, high rates of mischief, and common assault (Allen, 2020; Statistics Canada, 2021). Further, the higher incidence of trauma within Indigenous peoples in Canada places them at increased risk of experiencing a traumatic event which may lead to the development of PTSD.

The high risk of PTSD found within our sample of T3PS officers may also in part be due to the recent unprecedented COVID-19 pandemic (Leung & Shen, 2021). While this study cannot determine whether the pandemic directly had an impact on overall and type of PTSD risk, previous research has identified that COVID-19 was a significant predictor and can be considered a CI exposure impacting first responder's mental health (Carmassi et al., 2020; Graham et al., 2021).

5.3.2 Objective (2) determine the potential barriers to accessing mental health supports experienced by these officers:

Studies have shown that stigmatizing attitudes are prevalent when managing mental illness and seeking psychological services, especially within law enforcement populations (Lane et al., 2022). Police officers agreed that having access to mental health services is critical; yet they are often cautious about seeking out mental health supports (Newell et al., 2021). Police officers often express concerns about the pragmatics of using these services, including accessibility and anonymity (Lane et al., 2022). Furthermore, within police cultures there is a perception that if police officers cannot take care of themselves, they cannot properly take care

of others, which supports the idea of stigma as a barrier to accessing mental health support (Bell & Eski, 2016). Stigma research has found that if an individual knows someone with a mental illness / mental ill health, it decreases their perception of stigma (Coutoure & Penn, 2003; Parcesepe & Cabassa). Therefore, consistent with self-stigma literature among the general population, but contrary to self-stigma literature on police populations, we found that the majority of our sample of T3PS officers experienced PTSD symptomology, and had low self-stigma about mental illness and positive attitudes about seeking mental health treatment. One possible explanation for this is that T3PS officers have been receiving sufficient mental health awareness training, where PTSD experiences are normalized and discussed. More research is needed to identify if this plausible. The small size of each T3PS jurisdiction may facilitate a work environment that accepts and encourages officers to speak out about the traumatic events encountered on the job. This could also suggest that most of our sample has experienced recent mental health stigma training, although the quality and nature of the training they have received is unknown. Furthermore, age, gender, and years of service may impact self-stigma associated with seeking mental health support (Alluhaibi & Awadalla, 2022). Literature illustrates that males typically show higher levels of stigma towards seeking-help in comparison to females (Alluhaibi & Awadalla, 2022). Further analysis must be conducted to see if gender had an impact on stigma within our sample of T3PS officers. Individuals who have not previously sought mental health treatment and are who are close with someone who has received mental health treatment, have been found to experience different perceived self-stigma associated with seeking-help, which would be meaningful to assess within our sample, to see if T3PS officers who have received mental health treatment have less stigma (Alluhaibi & Awadalla, 2022). Therefore, additional research would need to be done to fully understand what would deter or

encourage an officer to seek mental health support. Within our study we found that overall T3PS officers disagreed that they would experience stigma when / if seeking mental health support. When assessing descriptive data for Indigeneity, we found that our sample of Indigenous T3PS officers *agreed and disagreed equally* that "if they went to a therapist, they would be less satisfied with themselves" and that "their self-confidence would stay the same if they sought professional help for a problem they couldn't solve;" whereas our sample of non-Indigenous T3PS officers overall *disagreed* with these statements. One possible explanation for this finding may be that Indigenous peoples are more reluctant to receive Westernized methods of professional help or go to clinical settings for treatment due to fear of discrimination and maltreatment after generations of systemic discrimination created by government policies including Canada's residential school system and Indian hospitals (Elias et al., 2012; Gershon et al., 2009). Within this context it is critical to include traditional/cultural healing methods when providing Indigenous officers and community members with mental health support.

5.3.3 Implication for Treatment or Policy

Police officers are roughly four times more susceptible to developing mental illness (in comparison to the general population) due to the dangerous nature of their work and the stressors that accompany it, both organizational and operational (Leung & Shen, 2022). Given the increased risk police officers face in developing mental health disorders such as PTSD, seeking professional help can be important when coping with stressors (i.e., CIs) that come with the job. Our sample of T3PS officers experienced low self-stigma associated with seeking help, however, we were unable to determine whether police officers are, in fact, seeking out these mental health supports. Given our results, we can assume that, though they are comfortable in seeking help to better handle the adverse mental health exposure and outcomes that come with the job, they are

not receiving the necessary help. A reason for this may be due to the lack of mental health resources offered in NWO, more specifically, a lack of resources found in the rural Indigenous NWO communities in which they work/reside in. Therefore, it is still necessary to provide greater support for the implementation of efforts combating the mental illness experienced by NWO police officers. The findings of this study, considering existing literature, have the potential to impact the policy and community of T3PS' work force. Our findings also provide several study implications.

5.3.4 Study Implications

The results obtained from this study have aided in exploring and identifying potential mental health exposures, adverse mental health outcomes, and barriers to accessing mental health supports as experienced by NWO police officers working for T3PS. This research has been identified as meaningful by T3PS and can be used in the future as a baseline measurement for developing appropriate mental health resources for police officers working in the rural north. Assessing mental health levels may also lead to eventual research that will consider mitigating potential mental ill-health being experienced by these police populations. Study objectives were developed to address the purpose of this research study, through CI and brief trauma exposure, PTSD, and self-stigma associated with seeking help. This research is one of the only studies aimed towards gaining a baseline understanding of the existing mental health amongst Indigenous and non-Indigenous officers working within rural, primarily Indigenous, NWO communities. While this study was not comprehensive, the CIHQ, BTQ, PCL-5, and SSOSHS provided a complex examination of common mental health concepts that occur in police populations which have not yet been looked at within this unique context. Findings have been used to inform and increase T3PS' awareness of work-related mental health exposures their

officers are experiencing. Therefore, the following significant changes should be adopted within the development of interventive and preventative strategies to improve their overall mental health.

Since T3PS consists of primarily Indigenous police officers, continuous and promotional education/training related to mental health disorder prevention/ management strategies should be addressed through the context of Indigenous traditional healing methods, while also integrating western treatment methods. Many service providers have emphasized that the development of traditional healing guidelines is an essential element for successful mental health healing among Indigenous peoples (Marion & Shawande, 2010). Additionally, the promotion of workplace practices such as employee involvement, work-life balance, psychological health and safety, as well as employee recognition have also been found to promote psychologically healthy workplaces (Coduti et al., 2016). As a result, addressing these components has been found to improve productivity and reduce absenteeism, injury rates, and related costs (such as workplace disability and lost time; Coduti et al., Wagner et al., 2016). These components should be annually reviewed and assessed to continue the development of a psychologically healthy workplace for T3PS officers. Additionally, given the context of T3PS, it would also be critical to include Indigenous peoples (i.e., elders and healers) in the development of subsequent training.

5.4 Limitations

A limitation for this study was that data collected was not stratified by sex. This was a limitation as women police officers report increased symptoms of mental health disorders in comparison to men police officers (Angehrn et al., 2021). Research has identified that the occupational experience of police officers greatly differs among men and women (Angehrn et al., 2021). A reason sex was not stratified within this study was because of the low female

participation rate (n=12). Additionally, only 8 Indigenous and 16 non-Indigenous members currently work at T3PS therefore there was an increased risk for loss of anonymity.

Another limitation of this research was that a cross-sectional study design was utilized. As a result, the link between the outcome and the exposure could not be determined because both were examined at the same time. Future analysis should be conducted within police populations at T3PS to make causal inferences and avoid sampling, nonresponse, and recall biases (Xiaofeng & Zhenshun, 2020).

As a result of the COVID-19 pandemic, the progression of this research faced challenges and limitations that may have impacted the findings of this study. Higher occupational burnout levels can be seen within first responder populations following COVID-19, as many cases of tragic suicidal deaths have emerged following the pandemic, which directly impact those being called-to-action (Raudenska et al., 2020). Other studies have identified that threat of exposure to the virus added occupational hazards, negative work-life balance, and neglected personal and family needs due to increased workload (Raudenska et al., 2020). Police officers may also have higher perceived mental ill health following the pandemic.

Within this study, the mental health of T3PS officers was assessed by determining CI and brief trauma exposure, as well as PTSD risk. Police officers are at risk of developing several other mental health disorders such as major depressive disorder, alcohol abuse disorder, and generalized anxiety disorder (Carleton et al., 2019; Haugen et al., 2012; Johnson et al, 2020; Vujanovic & Tran, 2021). To identify T3PS' true mental health status, future studies should incorporate the evaluation of other mental health concerns experienced by police populations. While T3PS officers are at an increased risk of developing mental health disorders due to the nature of their job, it is also important to identify that some PTSD symptoms (i.e., anxiety,

depression, sleep disturbances, etc.) may co-occur with other mental health disorders (Brady et al., 2000). These symptoms are often immediate reactions to traumatic events (CIs or brief trauma). While these reactions are common, when symptoms persist the risk of developing PTSD also increases. To be diagnosed with PTSD an individual must experience a series of diagnostic symptoms for a minimum of one month (APA, 2020). It should be noted that the PCL-5 only addresses the severity of PTSD symptoms experienced within the previous month and not the frequency (Weathers et al., 2013). Due to these considerations, a limitation within this study is that we assessed T3PS officer's PTSD risk based on symptom severity alone, which additionally could have been impacted by continuous, respective exposure to CIs and brief trauma. It is important to note that the administration of questionnaires to T3PS officer's was limited to avoid participant burden / burnout.

Chapter 6: KNOWLEDGE TRANSLATION STRATEGY

This thesis used an integrated knowledge translation (iKT) approach where knowledge users from the Ontario Provincial Police and Treaty Three Police Services were involved in all stages of the research process, including the design, implementation, and dissemination of research findings. This approach was informed by the Knowledge-to-Action (KTA) framework created by Graham et al., (2006). The KTA Framework consists of two components, the first being *knowledge creation,* which is represented by a central funnel that includes the production, synthesis, and interpretation of knowledge (Graha, et al., 2006). As knowledge moves through the three stages (inquiry, synthesis, and tools/products), it becomes easier for the "user." The second component is known as the *action cycle*, and is represented by seven stages orbiting the funnel, consisting of activities needed for effective implementation of knowledge.

Dissemination of our research findings has allowed the reach of knowledge on both an organizational and individual level to have a greater impact. For example, as previously identified the objectives of this research project were to determine the existing mental health status of police officers working for T3PS in NWO and identify the potential barriers to accessing mental health supports as experienced by these officers. Additionally, these findings will be presented to policy makers, stakeholders, and knowledge users at T3PS jurisdictions. This was done in the form of information sessions, lay summaries, and infographics. Additional ways the results of this study will be disseminated is through presentations at research conferences, as well as manuscripts written for publication in peer-reviewed journals. Sharing the findings of this study through readable educational formats may also improve awareness on the importance of police mental health in NWO.

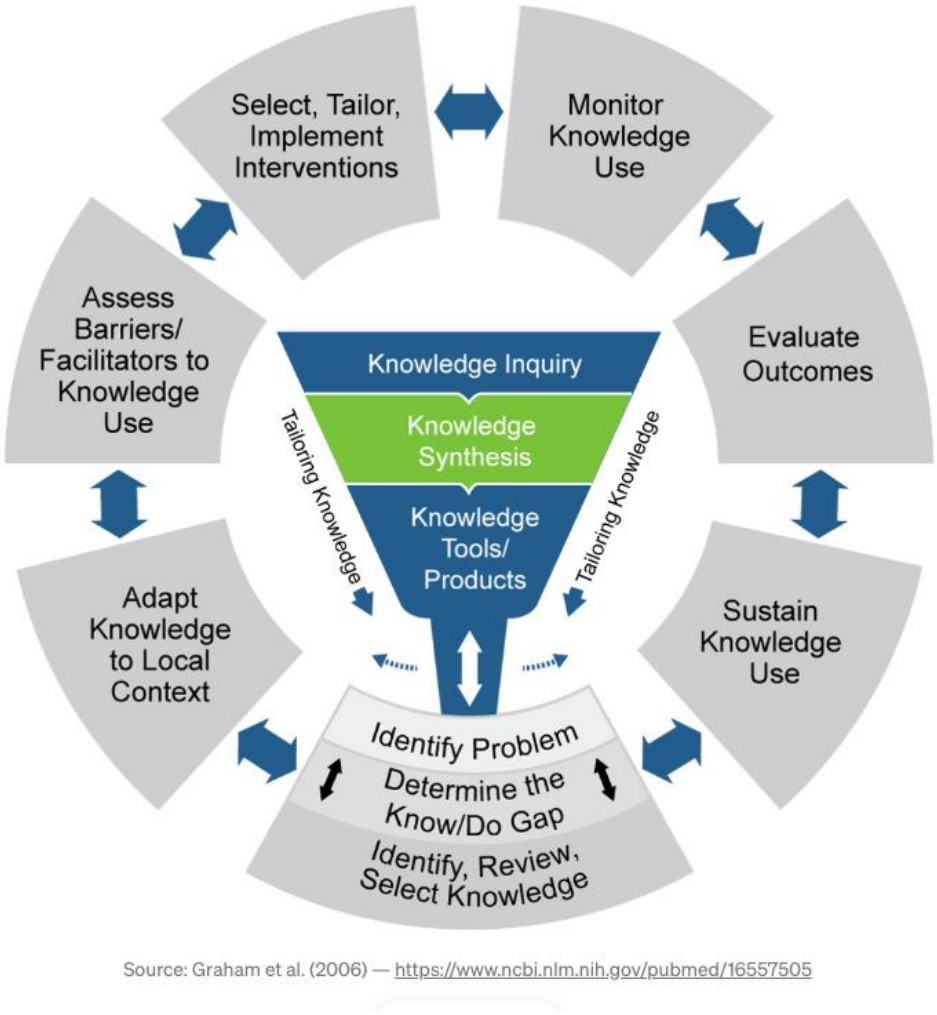

Figure 3. The Knowledge-to-Action (KTA) Framework.

Chapter 7: CONCLUSION

In conclusion, Indigenous and non-Indigenous T3PS officers experienced high rates of mental health exposures (i.e., work-related CI exposure, and non-work related brief trauma exposure) and adverse mental health outcomes (i.e., risk of developing and / or having PTSD). In terms of CI exposure experienced by our sample of T3PS officers, high frequencies and severity of exposures were experienced, which likely had an impact on T3PS officers high risk of developing PTSD. Furthermore, it was found that in comparison to the literature, our sample experienced high CI exposure rates in comparison to the general public and urban police populations. In terms of non-work related exposures it was identified that our sample experienced high rates of non-work related trauma exposure in comparison to the general public, and similar to urban police populations. In terms of self-stigma associated with seeking mental health support, our research found that overall, T3PS officers would / did not experience self-stigma if / when seeking support. When assessing descriptive data for Indigeneity our findings identified that non-Indigenous T3PS officers experienced higher CI exposure in comparison to Indigenous T3PS officers, who experienced higher non-work related trauma exposure and higher risk of developing PTSD.

It is evident that there is a need for mental health training and education programs, accessible resources, and interventive programming with effective treatments that are suited to both Indigenous and non-Indigenous police officers (traditional Indigenous healing integrated with Western healing methods). It is also evident that policing in NWO is unique in terms of police populations, as well as the population in which they must serve and protect. Treaty Three Police Service officers' overall health and well-being has been impacted, which must be addressed to improve their overall mental health status. Lastly, research findings will be used to

inform and support the development of a psychologically healthy workplace for T3PS police officers.

References

Aboriginal Healing Foundation. (2002). Aboriginal Healing Foundation (Ottawa, Ontario).

Aguiar, W., & Halseth, R. (2015). *Aboriginal peoples and Historic Trauma: The processes of intergenerational transmission.* Prince George, BC: National Collaborating Centre for Aboriginal Health. Retrieved from: https://www.ccnsa-nccah.ca/docs/context/RPT-HistoricTrauma-IntergenTransmission-Aguiar-Halseth-EN.pdf

Alluhaibi, B. A., Awadalla, A.W. (2022). Attitudes and Stigma Toward Seeking Psychological Help Among Saudi Adults. *BMC Psychology* (*10)*1, 200-216. Retrieved from: https://doi.org/10.1186/s40359-022-00923-4

American Psychological Association [APA]. *Building your resilience*. American Psychiatric Association. (2021). Retrieved from https://instituteofcoaching.org/resourcefile/building-your-resilience/15451

American Psychiatric Association [APA]. *What is Posttraumatic Stress Disorder (PTSD)?* American Psychiatric Association. (2022). Retrieved from: https://www.psychiatry.org/patients-families/ptsd/what-is-ptsd#:~:text=Posttraumatic%20stress%20disorder%20(PTSD)%20is,sexual%20violence%20or%20serious%20injury.

Angehrn, A., Fletcher, A. J., & Carleton, R. N. (2021). "Suck it up, Buttercup": Understanding and overcoming gender disparities in policing. *International journal of environmental research and public health*, *18*(14), 7627

Annual Ontario Provincial Police Report. (2019). Retrieved from: https://books.scholarsportal.info/en/read?id=/ ebooks/ebooks3/ogdc/2017-10-

Andersen, J.P., Papazoglou, K., Arnetz, B.B., & Collins, P.I. (2015). Mental Preparedness as a

Pathway to Police Resilience and Optimal Functioning in the Line of Duty. *International Journal of Emergency Mental Health and Human Resilience, 17*(3), 624-627. doi:10.4172/1522-4821.1000243

Allen, M. (2020). Crime reported by police serving areas where the majority of the population is Indigenous, 2018. *Canadian Centre for Justice and Community Safety Statistics*. Retrieved from: https://www150.statcan.gc.ca/n1/pub/85-002-x/2020001/article/00013-eng.h

Bellamy, S., Hardy, C. (n.d). Post-Traumatic Stress Disorder in Aboriginal People in Canada: Review of Risk Factors, the Current State of Knowledge and Directions for Further Research. *National Collaborating Centre for Aboriginal Health.* Retreived from: https://www.ccnsa-nccah.ca/docs/emerging/RPT-Post-TraumaticStressDisorder-Bellamy-Hardy-EN.pdf

Bell, S., & Eski, Y. (2016). 'Break a leg—it's all in the mind': police officers' attitudes towards colleagues with mental health issues. *Policing: A Journal of Policy and Practice*, *10*(2), 95-101. https://doi.org/10.1093/police/pav041

Beshiri, R., Hofmann, N. (2001). Rural and Small Town Canada Analysis Bulletin. *Statistics Canada. 3*(3), 1-17. Retrieved from: https://www150.statcan.gc.ca/n1/en/pub/21-006-x/21-006-x2001003-eng.pdf?st=TpVmzTGWBombay, A.,

Boyce, J. (2016). Victimization of Aboriginal people in Canada.. *Juristat.* Statistics Canada Catalogue no. 85-002-X.

Brown, P. S., Westbrook, A. R., Challagalla, G. (2005). Good Cope, Bad Cope: Adaptive and Maladaptive Coping Strategies Following a Critical Negative Work Event. *Journal of Applied Psychology, (90)*4, 792-798. doi: 10.1037/0021-9010.90.4.792

Bryant, R. A., & Guthrie, R. M. (2007). Maladaptive self-appraisals before trauma exposure predict posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, *75*(5), 812.

Brzozowski, J. A., Taylor-Butts, A., & Johnson, S. (2006). *Victimization and Offending Among the Aboriginal Population in Canada*. Ottawa: Canadian Centre for Justice Statistics.

Carleton, R., Afifi, T., Taillieu, T., Turner, S., Krakauer, R., & Anderson, G. (2019). Exposures to potentially traumatic events among public safety personnel in Canada. *Canadian Journal of Behavioural Science*, *51*(1), 37-52. https://doi.org/10.1037/cbs0000115

Canadian Mental Health Association. (2009). *Rural and Northern Community Issues in Mental Health.* Retrieved from: https://ontario.cmha.ca/documents/rural-and-northern-community-issues-in-mental-health/

Canadian Mental Health Association. (2018). *Police Mental Health: A Discussion Paper* (pp.1-18). Retrieved from: https://www.camh.ca/-/media/files/pdfs---public-policy-submissions/police-mental-health-discussion-paper-oct2018-pdf.pdf?la=en&hash=B47D58B5ACBE4678A90907E3A600BB447EE134BF

Canadian Mental Health Association. (2020). *Rural and Northern Community Issues in Mental Health* (pp. 1-23). Retrieved from https://ontario.cmha.ca/documents/rural-and-northern-community-issues-in-mental-health/

Centers for Disease Control and Prevention. (2021). *Frequently asked questions.* https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Basics

Chopko, B, A., Palmieri, P, A., Adams, R, E. (2015) Critical incident history questionnaire replication: frequency and severity of trauma exposure among officers from small and

midsize police agencies. *J Trauma Stress*. (2), 157-61. doi: 10.1002/jts.21996. PMID: 25808672.

Cotter, A. and L. Savage. (2019). Gender-based violence and unwanted sexual behaviour in Canada, Initial findings from the Survey of Safety in Public and Private Spaces. *Juristat*. Statistics Canada Catalogue no. 85-002-X.

Cohen, J., et al. (2015). Preliminary Evaluation of the Psychometric Properties of the PTSD Checklist for DSM – 5. (Conference Presentation). doi: 10.12140/2.1.4448.5444

Corrigan, P.W., Rao, D. (2012). On the self-stigma of mental illness: stages, disclosure, and strategies for change. *Can J Psychiatry*. 57(8):464-9. doi: 10.1177/070674371205700804. PMID: 22854028; PMCID: PMC3610943.

Coutoure SM, Penn DL (2003) Interpersonal contact and the stigma of mental illness: a review of the literature. *J Mental Health* (12), 291–305.

Daschuk, J. W. (2013). *Clearing the plains: Disease, politics of starvation, and the loss of Aboriginal life* (Vol. 65). University of Regina Press.

Desmarais SL, Livingston JD, Greaves CL, Johnson KL, Verdun-Jones S, Parent R, Brink J (2014) Police perceptions and contact among people with mental illnesses: comparisons with a general population survey. *Psychol Public Policy Law 20*(4):431–442. https://doi.org/ 10.1037/law0000023

Duran, E. (2006). *Healing the soul wound: Counseling with American Indians and other Native peoples.* New York: Teachers College Press, Columbia University.

Dumont, J. (1988). *The principle values of the native people*. Unpublished paper, Native Studies Department, University of Sudbury.

Eberhardt, M. S., Pamuk, E. R. (2004). The importance of place of residence: examining health

in rural and Nonrural areas. Am J Public Health 94(1), 682–6. https://doi.org/10.2105/AJPH.94.10.1682

Elias, B., Mignone, J., Hall, M., Hong, S. P., Hart, L., & Sareen, J. (2012). Trauma and suicide behaviour histories among a Canadian indigenous population: an empirical exploration of the potential role of Canada's residential school system. *Social science & medicine*, *74*(10), 1560-1569. https://doi.org/10.1016/j.socscimed.2012.01.026

Evans-Campbell, T. (2008). Historical trauma in American Indian / Native Alaskan communities: A multilevel framework for exploring impacts on individuals, families, and communities. *Journal of Interpersonal Violence, 4*(23) 200-216 doi: 10.1177/0886260507312290

Evans, B., Coman, G., Stanley, R. and Burrows, G. (1993). 'Police Officers' Coping Strategies: An Australian Police Survey. *Stress Medicine* 9(1), 237–246.

Erich, J. (2014). Earlier than too late: stopping stress & suicide among emergency personnel. First responders keep killing themselves--why is that, and what can we do about it?. *EMS World*, *43*(11), 38-47.

First Nations Health Authority. (2022). *Traditional Wellness and Healing*. Retrieved from: https://www.fnha.ca/

Foley, J., Hassett, A., & Williams, E. (2022). 'Getting on with the job': A systematised literature review of secondary trauma and post-traumatic stress disorder (PTSD) in policing within the United Kingdom (UK). *The Police Journal*, *95*(1), 224-252.

Gallo LC, Roesch SC, Fortman AL, Carnethon MR, Penedo FJ, Perreira K, Birnbaum-Weitzman O, Wassertheil-Smoller S, Castañeda SF, Talavera GA, Sotres-Alvarez D, Daviglus ML, Schneiderman N and Isasi CR (2014), "Associations of chronic stress burden, perceived

stress, and traumatic stress with cardiovascular disease prevalence and risk factors in the hispanic community health study/study of latinos sociocultural ancillary study", *Psychosomatic Medicine*, *(6)*76, 468–475, doi: 10.1097/PSY.0000000000000069.

Gershon, R. R., Barocas, B., Canton, A. N., Li, X., & Vlahov, D. (2009). Mental, physical, and behavioral outcomes associated with perceived work stress in police officers. *Criminal Justice and Behavior*, *36*(3), 275-289. https://doi.org/10.1177/0093854808330015

Goffman, E. (2018). Stigma and Social Identity. In *Deviance & Liberty* (pp. 24-31). Routledge.

Gunn, B. L. (n.d.) Ignored to Death: Systemic Racism in the Canadian Healthcare System. *Study on Health.* Retrieved from: https://www.ohchr.org/sites/default/files/Documents/Issues/IPeoples/EMRIP/Health/UniversityManitoba.pdf

Harris, M., Baloglu, M., & Stacks, J. (2002). Mental health of trauma-exposed firefighters and critical incident stress debriefing. *Journal of Loss and Trauma, 7*(3), 223-238. https://doi.org/10.1080/10811440290057639

Haugen, P., Evces, M., & Weiss, D. (2012). Treating posttraumatic stress disorder in first responders: A systematic review. *Clinical Psychology Review*, *32*(5), 370-380. https://doi.org/10.1016/j.cpr.2012.04.001

Hill, P, L., (2008). Understanding Indigenous Canadian Traditional Health and Healing. *Theses and Dissertations (Comprehensive).* Retrieved from: https://scholars.wlu.ca/etd/1050?utm_source=scholars.wlu.ca%2Fetd%2F1050&utm_medium=PDF&utm_campaign=PDFCoverPages

Hill, G., & Coady, N. (2003). Comparing euro-western counselling and aboriginal healing

methods: An argument for the effectiveness of aboriginal approaches to 239 healing. *Native Social Work Journal*, 4(1). Sudbury, ON: Laurentian University Press.

Hough, M., Jackson, J., Bradford, B., Myhill, A., & Quinton, P. (2010). Procedural justice, trust, and institutional legitimacy. *Policing: A Journal of Policy and Practice*, 4(3), 203-210. https://doi.org/10.1093/police/paq027

Hunter, E. (2017). "You didn't tell us what to do": trauma2 and critical incident responses in remote Indigenous settings. *Australasian Psychiatry, 25*(3), 290-292.

Institute of Medicine. (2015). Psychosocial interventions for mental and substance use disorders: A framework for establishing evidence-based standards. Washington, DC: National Academy of Sciences.

IBM SPSS statistics. IBM. (2020). Retrieved from https://www.ibm.com/products/spss-statistics?lnk=hpmps_bupr.

Jameson, J. P., & Blank, M. B. (2007). The Role of Clinical Psychology in Rural Mental Health Services: Defining Problems and Developing Solutions. Clinical Psychology: Science and Practice, 14(3), 283–298. https://doi.org/10.1111/j.1468-2850.2007.00089.x

Johnson, S., Ebrahimi, O., & Hoffart, A. (2020). PTSD symptoms among health workers and public service providers during the COVID-19 outbreak. PLOS ONE, 15(10), e0241032. https://doi.org/10.1371/journal.pone.0241032

Jones, D., & Jensen, P. (2019). The history of policing and Indigenous persons in Canada. *Police responses to mental health in Canada*, 278-295.

Jones, N. A., Ruddell, R., & Summerfield, T. (2019). Community policing: Perceptions of officers policing Indigenous communities. *Canadian Journal of Criminology and Criminal Justice*, *61*(1), 41-65.

Jones, S. (2017). Describing the mental health profile of first responders: A systematic review. *Journal of the American Psychiatric Nurses Association*, 23, 200-214. doi:10.1177/1078390317695266

Karaffa, K., Openshaw, L., Koch, J., Clark, H., Harr, C., & Stewart, C. (2015). Perceived impact of police work on marital relationships. *The Family Journal*, *23*(2), 120-131.

Karatzias T, Yan E and Jowett S (2015), "Adverse life events and health: a population study in Hong Kong", *Journal of Psychosomatic Research*, *(2)*78, 173–177. doi: 10.1016/j.jpsychores.2014.11.024.

Kiedrowski, J., Jones, N. A., & Ruddell, R. (2017). 'Set up to fail?' An analysis of self-administered indigenous police services in Canada. *Police Practice and Research*, *18*(6), 584-598. https://doi.org/10.1080/15614263.2017.1363973

Kiedrowski, J., Petrunik, M., Ruddell, R. (2016). Illustrative Case Studies of First Nations Policing Program Models. *Public Safety Canada.* Retrieved from: https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/2016-r014/2016-r014-en.pdf

Kirschman, E. (2018). *I love a cop: What police families need to know*. Guilford Publications.

Koziarski, J., O'Connor, C., & Frederick, T. (2021). Policing mental health: the composition and perceived challenges of co-response teams and crisis intervention teams in the Canadian context. *Police Practice and Research*, *22*(1), 977-995. https://doi.org/10.1080/15614263.2020.1786689

Kim, J. E., Dager, S. R., Jeong, H. S., Ma, J., Park, S., Kim, J.,Lyoo, I. K. (2018). Firefighters, posttraumatic stress disorder, and barriers to treatment: Results from a nationwide total population survey. *PLoS One*, *13*(1) 400-444. doi:10.1371/journal.fpone.0190630

Lakehead University Research Ethics Board. (2022). *The Research Ethics Board.* Retrieved

from: https://www.lakeheadu.ca/research-and-innovation/ethics/human-subjects

Lane, J., Le, M., Martin, K. (2022). Police Attitudes Toward Seeking Professional Mental Health Treatment. *Police Criminal Psychology 37*(1), 23–131. https://doi.org/10.1007/s11896-021-09467-6

Lamb, H. R., Weinberger, L. E., & DeCuir Jr, W. J. (2002). The police and mental health. *Psychiatric services*, *53*(10), 1266-1271. https://doi.org/10.1176/appi.ps.53.10.1266

Landau, T. (2019). Policing and security in four remote aboriginal communities: A challenge to coercive models of police work. *Canadian Journal of Criminology*, *38*(1), 1-32. https://doi.org/10.3138/cjcrim.38.1.1

Leung, T. Y., & Shen, Q. (2022). Implementing a post- traumatic stress disorder screening for first responders in rural area. *Public Health Nursing (Boston, Mass.)*, *39*(4), 788–796. https://doi.org/10.1111/phn.13058

Levi, L. (2004). Introduction: spice of life or kiss of death. Cooper CL (Ed.), Handbook of Stress Medicine and Health, CRC Press, Boca Raton, FL, pp. 1–5.

Lewis-Schroeder, N. F., Kieran, K., Murphy, B. L., Wolff, J. D., Robinson, M. A., & Kaufman, M. L. (2018). Conceptualization, assessment, and treatment of traumatic stress in first responders: a review of critical issues. *Harvard Review of Psychiatry*, *26*(4), 216.

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual review of Sociology*, *27*(1), 363-385.

Loftus, B. (2009). *Police culture in a changing world*. Clarendon Studies in Criminology

Manzella, C., & Papazoglou, K. (2014). Training police trainees about ways to manage trauma and loss. *International Journal of Mental Health Promotion*, *16*(2), 103-116.

Maar, M. A., & Shawande, M. (2010). Traditional Anishinabe healing in a clinical setting: The development of an Aboriginal interdisciplinary approach to community-based Aboriginal mental health care. *International Journal of Indigenous Health*, *6*(1), 18-27.

Martin, M., Marchand, A., Boyer, R., & Martin, N. (2009). Predictors of the development of posttraumatic stress disorder among police officers. *Journal of Trauma & Dissociation*, *10*(4), 451-468.

Matheson, F. I., Creatore, M. I., Gozdyra, P., Moineddin, R., Rourke, S. B., & Glazier, R. H. (2005). Assessment of police calls for suicidal behavior in a concentrated urban setting. *Psychiatric Services*, *56*(12), 1606-1609. https://doi.org/10.1176/appi.ps.56.12.1606

McKenzie, J. (2022). Addressing historical trauma and healing in Indigenous language cultivation and revitalization. *Annual Review of Applied Linguistics*, *4*(42), 71-77. https://doi.org/10.1017/S0267190521000167

McKay, J. (2021). Systemic Racism in Policing in Canada. *House of Commons Canada.* Retrieved from: https://www.ourcommons.ca/Content/Committee/432/SECU/Reports/RP11434998/securp06/securp06-e.pdf

Milliard. (2020). Utilization and Impact of Peer-Support Programs on Police Officers' Mental Health. *Frontiers in Psychology*, *(2)*11, 1686–1686. https://doi.org/10.3389/fpsyg.2020.01686

Moussavi, S., Chatterji, S., Verdes, E., Tandon, A., Patel, V., & Ustun, B. (2007). Depression, chronic diseases, and decrements in health: results from the World Health Surveys. *The Lancet*, *370*(9590), 851-858.

National Center for Post-Traumatic Stress Disorder. (2022). *Using the PTSD Checklist for DSM-5 (PCL-5).* Retrieved from: https://www.ptsd.va.gov/professional/assessment/documents/using-PCL5.pdf

National Collaborating Centre for Healthy Public Policy (2018). *Indigenous-specific Mental Health and/or Wellness Strategies in Canada.* Retrieved from: http://www.ncchpp.ca/docs/2018-SMP-PMH-Scan-Indigenous-Mental-Health-Strategies.pdf

National Centre for Truth and Reconciliation. (2015). *Honouring the truth, reconciling for the future: Summary of the final report of the truth and reconciliation commission of Canada. Ottawa, Ontario.*

National Volunteer Fire Council. (2008). Suicide in the fire and emergency services: Adopting a proactive approach to behavioral health awareness and suicide prevention. *Greenbelt, MD: Author.* Retrieved from https://www.nvfc.org/wp-content/uploads/2015/09/ff_suicide_report.pdf

Newell, C. J., Ricciardelli, R., Czarnuch, S. M., & Martin, K. (2022). Police staff and mental health: barriers and recommendations for improving help-seeking. *Police Practice and Research*, *23*(1), 111-124.

Niezen, R. (2009). Suicide as a way of belonging: Causes and consequences of cluster suicides in Aboriginal communities.

North West Region Action Plan. (2020). Retrieved from:

https://enterprise.gov.ie/en/Publications/North-West-Regional-Enterprise-Plan-to-2020.html

Northern Policy Institute. (2020). *Northern Ontario's State of Mental Health and Why*. Retrieved from: https://www.northernpolicy.ca/northern-ontario-mental-health#:~:text=The%20percentage%20of%20Indigenous%20peoples,or%20very%20good%20mental%20health.

Occupational Health and Safety. (2020). *Mental Health and First Responders: How Their Jobs Can Cause More Than Just Stress.* Retrieved from: https://ohsonline.com/articles/2020/01/21/mental-health-and-first-responders-how-their-jobs-can-cause-more-than-just-stress.aspx

Ontario Provincial Police. (2019). *Who We Are.* Retrieved from: https://www.opp.ca/

Ontario First Nation Policy Agreement (1994). *Government of Ontario.*Retrieved from: *https://www.attorneygeneral.jus.gov.on.ca/inquiries/ipperwash/report/vol_2/pdf/E_Vol_2_CH10.pdf*

Oxford English Dictionary. (2022). *Oxford University Press.* Retrieved from: https://www.oed.com/

Pallant, J. (2020). SPSS *survival manual* (7th ed.). Open University Press.

Paradies, Y. (2016). Colonisation, racism and indigenous health. Journal of Population Research, 33(1), 83-96. https://doi. org/10.1007/s12546-016-9159-y

Pass, L. E., Kennelty, K., & Carter, B. L. (2019). Self-identified barriers to rural mental health services in Iowa by older adults with multiple comorbidities: qualitative interview study. *BMJ Open*, *9*(11) 299-376.

Parcesepe, A, M., Cabassa, L, J. (2013). Public Stigma of Mental Illness in the United States: a systematic literature review. *Admin Policy Mental Health Services, 40*(3), 84–399.

Perreault, S. (2020). Gender-based violence: Sexual and physical assault in Canada's territories. *Juristat*. Statistics Canada Catalogue.

Pole, N., Best, S. R., Metzler, T., & Marmar, C. R. (2005). Why are Hispanics at greater risk for PTSD? *Cultural Diversity and Ethnic Minority Psychology*, *11*(2), 144–161. https://doi.org/10.1037/1099-9809.11.2.144

Queirós, C., Passos, F., Bártolo, A., Faria, S., Fonseca, S. M., Marques, A. J., ... & Pereira, A. (2020). Job stress, burnout and coping in police officers: Relationships and psychometric properties of the organizational police stress questionnaire. *International Journal of Environmental Research and Public Health*, *17*(18), 6718.

Raudenská, J., Steinerová, V., Javůrková, A., Urits, I., Kaye, A. D., Viswanath, O., & Varrassi, G. (2020). Occupational burnout syndrome and post-traumatic stress among healthcare professionals during the novel coronavirus disease 2019 (COVID-19) pandemic. *Best Practice & Research Clinical Anaesthesiology*, *34*(3), 553-560.

Ranapurwala, S. I., Berg, M. T., & Casteel, C. (2016). Reporting crime victimizations to the police and the incidence of future victimizations: A longitudinal study. *PloS One*, *11*(7), 160-172.

Ranford, J. R. (1998). Exploring the past, present and future of traditional native healing. Unpublished Master's Thesis. *McMaster University*. Hamilton, ON.

Reeves, A., & Stewart, S. L. (2014). Exploring the Integration of Indigenous Healing and Western Psychotherapy for Sexual Trauma Survivors Who Use Mental Health Services at

Anishnawbe Health Toronto. *Canadian Journal of Counselling and Psychotherapy*, *49*(1). Retrieved from: https://cjc-rcc.ucalgary.ca/article/view/61008

Roberts, A., Gilman, S., Breslau, J., Breslau, N., & Koenen, K. (2011). Race/ethnic differences in exposure to traumatic events, development of post-traumatic stress disorder, and treatment-seeking for post-traumatic stress disorder in the United States. *Psychological Medicine, 41*(1), 71-83. doi:10.1017/S0033291710000401

Royle. (2009). Issues of Stigma for First Responders Accessing Support for Post-Traumatic Stress. *International Journal of Emergency Mental Health*, *11*(2), 79–85.

Royal Commission on Aboriginal Peoples: Bridging the Cultural Divide. (1996). A Report on Aboriginal People and Criminal Justice in Canada. [Ottawa].

Ruddell, R., & Lithopoulos, S. (2016). Policing rural Canada. In *The Routledge International Handbook of Rural Criminology* (pp. 399-408). Routledge.

Sadulski, J. (2017) Managing Police Stress to Strengthen Relationships at Home. Retrieved from: https://www.police1.com/american-military-university/articles/managing-police-stress-to-strengthen-relationships-at-home-EZsGK2lQ4uxdcWH1/

Saurman, E. (2015). Improving Access: Modifying Penchansky and Thomas's Theory of Access. *Journal of Health Services Research & Policy*, *21*(1), 36-39.

Schnurr, P., Vielhauer, M., Weathers, F., & Findler, M. (1999). Brief Trauma Questionnaire. https://doi.org/10.1037/t07488-000

Sevillano, L., Wood, B., & Franklin, C. (2022). Mental Health Interventions That Address Historical Trauma Among Indigenous Peoples: A Systematic Review. *Social Work Research, 46*(2), 127-140.

Skogstad, M., Skorstad, M., Lie, A., Conradi, H. S., Heir, T., & Weisæth, L. (2013). Work-

related post-traumatic stress disorder. *Occupational medicine*, *63*(3), 175-182. https://doi.org/10.1093/occmed/kqt003

Smallwood, R., Woods, C., Power, T., & Usher, K. (2021). Understanding the impact of historical trauma due to colonization on the health and well-being of indigenous young peoples: a systematic scoping review. *Journal of Transcultural Nursing*, *32*(1), 59 68.

Soomro, S., & Yanos, P. T. (2019). Predictors of mental health stigma among police officers: the role of trauma and PTSD. *Journal of Police and Criminal Psychology*, *34*(2), 175-183. https://doi.org/10.1007/s11896-018-9285-x

Sotero, M. (2006). A conceptual model of historical trauma: Implication for public health practice and research. *Journal of Health Disparities Research and Practice,* 1(1), 93-108.

Statistics Canada. (2018). *First Nations People, Metis and Inuit in Canada: Diverse and Growing populations.* Retrieved from: https://www150.statcan.gc.ca/n1/pub/89-659-x/89- 659-x2018001-eng.htm

Statistics Canada. (2021a). *Census Profile, 2016 Census.* Retrieved from: https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=3559063&Geo2=PR&Code2=35&SearchText=Couchiching%2016A&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=PR&GeoCode=3559063&TABID=1&type=0

Statistics Canada. (2021b). *Indigenous group of person*. Retrieved from: https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DECI&Id=1324435

Statistics Canada. (2021c*). Incident-based Crime Statistics, by Detailed Violations, Police Services in Ontario.* Retrieved from: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510018001

The Government of Canada. (2016a). Engagement Summary Report: What We Heard. *Public Safety Canada.* Retrieved from: https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/rnwd-pprch-plcng-ndgns-cmmnts/index-en.aspx

The Government of Canada. (2016b). A Renewed Approach to Policing in Indigenous Communities – Engagement Summary Report: What We Heard. *Public Safety Canada.* Retrieved from: https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/rnwd-pprch-plcng-ndgns-cmmnts/index-en.aspx

Treaty Three Police Services: Our Traditions. (2022). *The Eight Teachings*. Retrieved from: https://www.t3ps.ca/who-we-are/eight-teachings/

Three Police Service Annual Report. (2019). Retrieved from: https://www.t3ps.ca/wp content/uploads/2020/08/2018-2019-Annual-Report.pdf

Treaty Three Police Services. (2018). *Home*. Retrieved from: https://www.t3ps.ca/

Treaty Three Police Services. (2017). *Who We Are.* Retrieved from: https://www.t3ps.ca/Treaty

Van der Velden, P. G., Rademaker, A. R., Vermetten, E., Portengen, M. A., Yzermans, J. C., & Grievink, L. (2013). Police officers: a high-risk group for the development of mental health disturbances? A cohort study. *BMJ Open*, *3*(1), e001720.

Vis, M. (2021). *Ontario Forest Fires Burned Record Area of Land this Summer as they Displaced First Nations in Northwest*. Retrieved from: https://www.cbc.ca/news/canada/thunder-bay/record-breaking-ontario-forest-fire-season-1.6242422

Violanti, J. (2018). *PTSD among Police Officers: Impact on Critical Decision Making.* Retrieved from: https://cops.usdoj.gov/html/dispatch/05-2018/PTSD.htmlVogel, D. L.,

Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology*, *53*(3), 325.

Vujanovic, A., & Tran, J. (2021). Providing psychological services to firefighters. *Journal of Health Service Psychology, 47*(3), 137-148. https://doi.org/10.1007/s42843-021-00041-6 https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/rnwd-pprch-plcng-ndgns-cmmnts/rnwd-pprch-plcng-ndgns-cmmnts-en.pdf

Wagner, S., White, N., Matthews, L. R., Randall, C., Regehr, C., White, M.,Fleischmann, M. H. (2020). Depression and anxiety in policework: A systematic review. *Policing, 43*(3), 417-434. doi:http://dx.doi.org/10.1108/PIJPSM-03-2019-0040

Walczewska J, Rutkowski K, Wizner B, Cwynar M and Grodzicki T (2011), "Stiffness of large arteries and cardiovascular risk in patients with post-traumatic stress disorder", *European Heart Journal*, *(6)*32, 730–736. doi: 10.1093/eurheartj/ehq354.

Waters, J. A., & Ussery, W. (2007). Police stress: History, contributing factors, symptoms, and interventions. *Policing: an international journal of police strategies & management*.

Weiss, D. S., Brunet, A., Best, S. R., Metzler, T. J., Liberman, A., Pole, N., & Marmar, C. R. (2010). Frequency and severity approaches to indexing exposure to trauma: The Critical Incident History Questionnaire for police officers. *Journal of Traumatic Stress*, *(6)*23, 734-743. https://doi.org/10.1002/jts.20576

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). The PTSD Checklist For the DSM-5 (PCL-5). *The National Center for PTSD. 10*(4). 200-225.

White, L. O. (1988). Teachings on the seven gifts. In Nishnaabe Kinoomaadwin Naadmaadwin: *Field Education Manual*. Sudbury, ON: Laurentian University Press.

Wilfrid Laurier University (2021). *Police Public Safety Resources*. Retrieved from: https://www.wlu.ca/programs/human-and-social-sciences/undergraduate/public-safety-ba/index.html

Williams, U., Jones, D. J., & Reddon, J. R. (Eds.). (2019). *Police response to mental health in Canada*. Canadian Scholars' Press.

Wilson, & Usher, K. (2015). Rural nurses: a convenient co-location strategy for the rural mental health care of young people. *Journal of Clinical Nursing*, *24*(17-18), 2638–2648. https://doi.org/10.1111/jocn.12882

World Health Organization. (2013*). Investing in Mental Health. Department of Mental Health and Substance Dependence.* Retrieved from: https://www.who.int/mental_health/media/investing_mnh.pdf

Yehuda, R. (2002). Post-traumatic stress disorder. *New England journal of medicine*, *346*(2), 108-114.

Appendix A

Demographic Questionnaire

Participant Demographics Form

1. Please provide your age in years. _____

2. Please provide your date of birth: _____

3. Please indicate your gender.
    a. Female
    b. Male
    c. Other (please identify) _____
    d. Prefer not to say

4. Please indicate the highest level of education you have completed before entering the police force.
    a. High school diploma or GED
    b. Ontario Police College and/or alternate College Diploma
    c. Bachelor's degree
    d. Master's degree
    e. Associate's degree
    f. Other: _____

5. Please indicate your number of years of service as a police officer working for the Ontario Provincial Police or Treaty Three Police Services
    a. Less than 1 year
    b. 1-5 years
    c. 6-10 years
    d. Greater than 10 years

6. What is your Job Title / Rank?
    a. Auxiliary Constable
    b. Auxiliary Staff Sergeant
    c. Caretaker
    d. Court Officer
    e. Detachment Admin Clerk
    f. Offender Transport Officer
    g. Detective Provincial Constable
    h. Inspector
    i. Provincial Constable
    j. Sergeant
    k. Staff Sergeant

7. Indicate your current area of service.

a. Ontario Provincial Police Kenora Detachment
b. Ontario Provincial Police Thunder Bay Detachment
c. Treaty Three Police Services Kenora Detachment
d. Treaty Three Police Services Thunder Bay Detachment

8. Which of the following best describes you?
   Please select one answer.
   a. Asian or Pacific Islander
   b. Black or African American
   c. Hispanic or Latino
   d. First Nations or Indigenous
   e. White or Caucasian
   f. Multiracial or Biracial
   g. Other: _____

9. Please indicate if diagnosed with, or seeking treatment for, depression, anxiety, or PTSI within the previous 6 months.
   a. Yes
   b. No

Appendix B

The Brief Trauma Questionnaire (BTQ)

Brief Trauma Questionnaire

The following questions ask about events that may be extraordinarily stressful or disturbing for almost everyone. Please circle "Yes" or "No" to report what has happened to you.

If you answer "Yes" for an event, please answer any additional questions that are listed on the right side of the page to report: (1) whether you thought your life was in danger or you might be seriously injured; and (2) whether you were seriously injured.

If you answer "No" for an event, go on to the next event.

Event	Has this ever happened to you?	If the event happened, did you think your life was in danger or you might be seriously injured?	If the event happened, were you seriously injured?
1. Have you ever served in a war zone, or have you ever served in a noncombat job that exposed you to war-related casualties (for example, as a medic or on graves registration duty?)	No Yes	No Yes	No Yes
2. Have you ever been in a serious car accident, or a serious accident at work or somewhere else?	No Yes	No Yes	No Yes
3. Have you ever been in a major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, orchemical spill?	No Yes	No Yes	No Yes
4. Have you ever had a life-threatening illness such as cancer, a heart attack, leukemia, AIDS, multiple sclerosis, etc.?	No Yes	No Yes	*N/A*
5. Before age 18, were you ever physically punished or beaten by a parent, caretaker, or teacher so that: you were very frightened; or you thought you would be injured; or you received bruises, cuts, welts, lumps or other injuries?	No Yes	No Yes	No Yes
6. Not including any punishments or beatings you already reported in Question 5, have you ever been attacked, beaten, or mugged by anyone, including friends, family members or strangers?	No Yes	No Yes	No Yes
7. Has anyone ever made or pressured you into having some type of unwanted sexual contact? Note: By sexual contact we mean any contact between someone else and your private parts or between you and some else's private parts	No Yes	No Yes	No Yes
8. Have you ever been in any other situation in which you were seriously injured, or have you ever been in any other situation in which you feared you might be seriously injured or killed?	No Yes	*N/A*	No Yes
9. Has a close family member or friend died violently, for example, in a serious car crash, mugging, or attack?	No Yes	*N/A*	No Yes
10. Have you ever witnessed a situation in which someone was seriously injured or killed, or have you ever witnessed a situation in which you feared someone would be seriously injured or killed? Note: Do not answer "yes" for any event you already reported in Questions 1-9	No Yes	*N/A*	*N/A*

Appendix C

The Critical Incident History Questionnaire for Police Officers (CIHQ)

INSTRUCTIONS: Below is a list of critical incidents that police officers may experience at sometime during their career. Please read each item and in the left-hand column, give your best estimate of the number of times that your partner has personally experienced that incident in the line of duty SINCE BECOMING A POLICE OFFICER. Next, in the right-hand column, please give your opinion about how difficult it would be for police officers in general to cope with each type of incident, NOT how difficult you think it would be for your partner personally. Please provide your opinion of the difficulty of each incident, even if you do not believe your partner has ever experienced it.

Response options (frequency):

Write in the # if from 0-9 ☐ 10-20 21-50 51+

Response options (difficulty):

Not at all a little bit moderately quite a bit extremely

1. Being seriously injured intentionally.
3. Being present when a fellow officer was killed intentionally.
4. Being present when a fellow officer was seriously injured intentionally.
5. Being present when a fellow officer was seriously injured accidentally.
2. Being seriously injured accidentally.
6. Being present when a fellow officer was killed accidentally.
7. Being seriously beaten in the line of duty.
8. Being taken hostage in the line of duty.
9. Receiving serious threats towards loved ones as retaliation for their police work.
10. Being shot at in the line of duty.
11. Being threatened with a gun in the line of duty.
12. Being threatened with a knife or another weapon in the line of duty.
13. Being trapped in a potentially life-threatening situation in the line of duty.
14. Being exposed to serious risk of AIDS or other life-threatening diseases in the line of duty.
15. Having his or her life threatened by an aggressive an [sic] dangerous animal in the line of duty.
17. Having to kill or seriously injure someone in the line of duty.
16. Being exposed to a life-threatening toxic substance in the line of duty.
18. Having to shoot at someone in the line of duty, without injuring them.
19. Making a mistake that led to the serious injury or death of a fellow officer.
20. Making a mistake that led to the serious injury or death of a bystander.
21. Being involved in a high-speed chase where lives were in danger.
22. Seeing someone dying.
23. Encountering the body of someone recently dead.
24. Encountering a decaying corpse.
25. Encountering a mutilated body or human remains in the line of duty.
26. Making a death notification.

27. In the line of duty, encountering a child who had been sexually assaulted.
28. In the line of duty, encountering an adult who had been sexually assaulted.
29. In the line of duty encountering a child who had been badly beaten.
30. In the line of duty encountering an adult who had been badly beaten.
31. In the line of duty encountering a child who was severely neglected or in dire need of medical attention because of neglect.
32. In the line of duty seeing animals that had been severely neglected, intentionally injured, or killed.
33. Having his or her life endangered in a large-scale man-made disaster in the line of duty.
34. Having his or her life endangered in a large-scale natural disaster in the line of duty.

If your partner has experienced a critical incident in the line of duty that does not fit into any of the categories mentioned above, please describe the event(s) in the space below.

35. Event:
36. Event:

Scoring Method: The total cumulative exposure score was derived by summing the frequency of incident exposure across all items.

Appendix D

The Post-Traumatic Stress Disorder Checklist for the DSM-5 (PCL-5)

PCL-5

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being "superalert" or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

PCL-5 (11 April 2018) National Center for PTSD Page 1 of 1

Appendix E

The Self-Stigma of Seeking Help Scale (SSOSH)

INSTRUCTIONS: People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation.

1 = Strongly Disagree 2 = Disagree 3 = Agree & Disagree Equally 4 = Agree 5 = Strongly Agree

1. I would feel inadequate if I went to a therapist for psychological help.
2. My self-confidence would NOT be threatened if I sought professional help.
3. Seeking psychological help would make me feel less intelligent.
4. My self-esteem would increase if I talked to a therapist.
5. My view of myself would not change just because I made the choice to see a therapist.
6. It would make me feel inferior to ask a therapist for help.
7. I would feel okay about myself if I made the choice to seek professional help.
8. If I went to a therapist, I would be less satisfied with myself.
9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.
10. I would feel worse about myself if I could not solve my own problems.

Items 2, 4, 5, 7, and 9 are reverse scored.