The Current State of Mental Health and Existing Resources for Correctional Officers in British Columbia

By

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COMMITTEE APPROVAL

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Abstract

Purpose To assess the current state of mental health and the resources available for correctional officers working in Provincial correctional facilities in British Columbia. The amount of existing literature focusing on Canadian correctional officers as first responders are minimal, with very few focusing on the officers' mental health.
Methods Surveys were distributed to 1374 unionized employees in Provincial correctional centres in British Columbia. A mixed-methods approach utilized the SF-36v2 quantitative health survey and open-ended interview-style qualitative questions coded using convergent grounded theory.
Results Utilizing a convergent approach to data analysis, SF-36v2 data was analyzed using z-score transformations and comparing results to t-scores derived from the 2009 United States general health survey. The average mental health component score was 34.28 [N=196], with 70% [N=196] meeting the criteria for first-stage depression screening. The general population MCS is 50, with 19% meeting depression criteria. Qualitative themes including abandonment, mortality and death were prevalent.
Conclusions The correctional officers surveyed scored significantly lower in every test of mental health and wellness than the general population, with men reporting lower mental wellness than women. Officers reported feeling abandoned by the organization and unable to access proper resources. The employer should make significant efforts to improve their employees' organizational culture and mental health, such as mandatory psychological check-ins and support for officers.

Keywords: Mental health, Correctional Officer, Resources, PTSD, Organizational culture,

Depression, Organizational theory, First responder, British Columbia

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To my son, to show that you can accomplish anything you set your mind to with dedication and hard work.

This is written in dedication to all the correctional officers; past, present, and future who have suffered a stress injury, mental health disorder, addiction or died by suicide because of trauma suffered at their workplace.

Key Terms and Definitions

Key terms throughout this research are as follows:

Abandon(ment): "The act of leaving a person, thing or place with no intention of returning" (Oxford, n.d.).

Abandon(ed): When a person is **"**left and no longer wanted, used or needed" (Oxford, n.d.).

Assault: "A person commits an assault when. (a) without the consent of another person, he applies force intentionally to that other person, directly or indirectly; (b) he attempts or threatens, by an act or a gesture, to apply force to another person" (Criminal Code [CCC], 1985, s 265(1)(a)(b)).

Correctional Officer: "A correctional officer is an employee of the Public Service of Canada. All correctional officers are uniformed and are designated as Peace officers under the Corrections and Conditional Release Act" (Correctional Service Canada [CSC], 2020). Provincial Officers are employed by the province, Federal Officers are employed by the Federal Government.

Code: A term used in BC correctional facilities to announce an emergency. Codes are "YELLOW—immediate staff assistance required; BLUE—medical emergency; and RED—escape or prison breach." (Adult custody policy [ACP], 2013).

Classical-traditional organizational theory: "Organization theory is built around four key pillars. They are the division of labor, the scalar and functional processes, structure, and span of control" (Scott, 1961).

Critical Incident: An incident that disrupts a correctional facility's every day running and may have adverse effects on persons (officers and/or prisoners) within the facility.

Disassociation - Dissociation is a break in how the mind handles information. May feel disconnected from thoughts, feelings, memories, and surroundings. It can affect a person's sense of identity and perception of time (WebMD, 2020).

First Responders: "a person (such as a police officer or an EMT) who is among those responsible for going immediately to the scene of an accident or emergency to provide assistance" (Merriam-Webster, 2021).

Front-line staff: A correctional officer who interacts with prisoners daily or almost daily. These officers are unionized and do not include management. Correctional officers are responsible for day-to-day activities and safety/security of the centre - they interact directly with prisoners, are the #1 go-to person for prisoners, and are often the crisis negotiators and critical incident responders, as they generally have a rapport with prisoners.

Hypervigilance: "An extreme and continuous sense of alertness due to a perceived threat either in the immediate work environment or as a result of work-related situations outside of work – can have on employees" (Fritz et al., 2018, pp.68).

"An enhanced state of sensory sensitivity accompanied by an exaggerated intensity of behaviours whose purpose is to detect threats. Hypervigilance is also accompanied by a state of increased anxiety which can cause exhaustion" (Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013,pp. 823).

Incident: Anything that goes on in the correctional facility that requires an incident report. Circumstances vary by institution. An incident can include threats towards an officer by a prisoner, a fight (whether between prisoners or involving an officer), a medical emergency (such

as an overdose), and generally any instance where an officer needs immediate assistance from their fellow officers. See CRITICAL INCIDENT.

IMHN (Inmate with Mental Health Needs): Prisoners whom a center's mental health team has identified require extra attention due to their mental illness or mental health needs. These prisoners are generally housed in a unit separate from other, regularly functioning prisoners.

Prisoner (Inmate):[1] **"**a person who is in a penitentiary pursuant to a sentence, committal or transfer to penitentiary, or a condition imposed by the Parole Board of Canada in connection with day parole or statutory release" (Corrections and Conditional Release Act [CCRA], 1992, s 1 (2)(1)).

Law Enforcement: A narrow term that only includes Police, Sheriffs and correctional officers.

Mental health: "A state of well-being in which the individual realizes their abilities, can cope with the everyday stresses of life, can work productively and fruitfully, and contribute to their community. Multiple social, psychological, and biological factors determine the level of mental health of a person at any point of time" (World Health Organization, 2020).

Modern organizational theory: Integrates valuable concepts of the classical models with the social and behavioural sciences. "Focuses on finding universal laws, methods and techniques of organization and control; favors rational structures, rules, standardized procedures and routine practices" (Hatch & Cunliffe, 2006 pp. 14).

Neo-Classical organizational theory: "The neoclassical theory of organization embarked on the task of compensating for some of the deficiencies in classical doctrine. The neoclassical school is commonly identified with the human relations movement. Generally, the neoclassical approach

[1] "Prisoner" being the academic term; "inmate" being the term used in the CCRA.

takes the postulates of the classical school, regarding the pillars of organization as givens. But these postulates are regarded as modified by people, acting independently or within the context of the informal organization" (Scott, 1961).

Organizational Culture: "The accumulated shared learning of that group as it solves its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, feel, and behave in relation to those problems" (Schein & Schein, 2017, pp.6).

Repression: "the act of controlling strong emotions and desires and not allowing them to be expressed so that they no longer seem to exist" (Oxford Dictionary, 2021).

Security Rating (Institution): "The Commissioner may assign the security classification of "minimum security", "medium security", "maximum security" or "multi-level security", or any other prescribed security classification, to each penitentiary or to any area in a penitentiary" (2019, c. 27, s 8)

Security Rating (Prisoner): "Inmates are classified as level I, II or III risk. Security classifications are assigned by the warden or designate, after reviewing institutional information and law enforcement intelligence" (ACP, 2013)

Segregation: A unit where prisoners designated by the person in charge to jeopardize the Centre's safety and security or are a danger to themselves or others are held. Maximum of 15 days (Correctional Act Regulation [CAR], 2020

Traumatic Incident: "An incident that causes physical, emotional, spiritual, or psychological harm" ... "In some cases, they may not know how to respond, or may be in denial about the effect such an event has had" (Cafasso, 2017).

Unit: A locked space housing prisoners and most of what is needed daily. A unit typically includes “cells” (or rooms/bunks), showers, washroom facilities, entertainment, and cooking/eating areas. It is generally separated by population and/or level of compliance and behaviour and varies in amenities between population and facility.

Chapter I: Introduction

1.1 Research Journey

In 2008, I lived in Winnipeg, Manitoba, when Tim Mclean was beheaded on a greyhound bus outside of town. Officer Ken Barker of the RCMP was one of the first officers to arrive on the scene. In 2014, almost three years into my degree in criminal justice, Ken died by suicide due to the PTSD he suffered, in part, from responding to this crime (Global News). This tragedy caught my attention; I wondered, “how could this man have suffered so much, for so long, and not have received adequate help for his trauma?”. In my final year of university, I completed a practicum with Winnipeg probation and witnessed first-hand the trauma associated with law enforcement jobs.

Four years after graduating from the University of Winnipeg, I was living in British Columbia and employed as a correctional officer in Kamloops, BC. My desire to explore the mental health and resources among correctional officers began during these four years. The years before beginning this research, I watched the mental health and wellness of officers who had been competent staff and good role models slowly decline. I watched staff members who did not “believe” in mental health or post-traumatic stress injuries spiral into substance abuse and self-destructive behaviours - some of which led to suicide.

I have encouraged fellow officers to seek help and access the available resources, to which my peers typically answered using the same few responses. These are “I do not need someone else to tell me how f***d up I am,” “I am afraid to have the things I say to the counsellor affect my work,” and “What available resources?” The question that struck me the most is that, more often than not, officers have little to no idea what resources are available to them.

In a correctional setting, mental health is not actively spoken about - officers still hold onto the “old school” mentality that mental health or ‘letting’ things affect you is weak. One example I have witnessed a lot while working in the field is the “just drink it away like the rest of us” mentality, which can indicate underlying mental health issues and substance abuse.

1.2 Purpose Statement

This mixed-methods study will address the current state of mental health and resources among Provincial correctional officers in British Columbia. The study is a convergent mixed methods design, with qualitative and quantitative data collected in parallel, analyzed separately and then merged. In this study, demographic information and the SF-36v2 (Quality Metrics, 2021) (Appendix A) were used to assess correctional officers' mental health state while working in a classically designed organization (Scott, 1961). The study anticipates that the current organizational culture and lack of mental health resources will negatively influence mental health for correctional officers employed with BC Corrections. The interview-style survey will explore the organizational culture and the efficacy of existing resources, including the Critical Incident Response Team (CIRT) and the Employee and Family Assistance Program (EFAP) that affect

BC correctional officers. The rationale for collecting quantitative and qualitative data is to measure mental well-being while allowing officers to share their stories and have a say in the recommendations that arise from this project.

1.3 Aim & Scope

This thesis project aims to measure the general state of correctional officers' mental health and wellbeing, evaluate the current resources, including EFAP and CIRT, identify gaps in the current system, and make recommendations based on the survey results. All unionized correctional officers in BC Provincial Corrections were provided with the opportunity to complete the survey. The resources in the study are based on the universal programs available through the employer and the BCGEU collective agreement. The study results, resources highlighted in the existing literature, other first responder departments and professionals such as police officers, firefighters, paramedics, and active military determined the recommendations. Recommendations were also be based on the current CSA standard for mental health in the workplace (CSA Group, 2021). While this project's scope is limited to BC Provincial Corrections, the hope is that the results are transferable to Provincial departments across Canada.

1.4 Ethical Review

Following the Tri-Council Policy for ethical conduct involving humans (2018), this study was submitted to the ethical review board at Royal Roads University for consideration. Ethical considerations included participants' right to withdraw from the study at any time without

consequence and notification that after submission, results will no longer be available to be withdrawn from the study. Potential conflict of interest with individuals who may participate in the study was addressed and mitigated by not using any personal identifiers and directing any questions or comments from individuals to the thesis committee.

The potential for personal bias was included in the ethical review and mitigated by taking a random sampling of employees. Bias was lessened by making a conscious effort and decision to listen to and interpret the data presented, not as the researcher would like it to be. Bias was also removed from the qualitative questions in collaboration with the research team to ensure questions were crafted using the current literature and not personal experience.

Participants were made aware of potential conflicts of interest in the letter of informed consent. Negative impacts on respondents were addressed using a written debrief to provide mental health resources and contact information and the ability to skip any question without consequence. No power dynamic, vulnerable persons or increased risk were identified, and the potential benefits to correctional officers outweighed the minimal risk identified. No identifying information was gathered, and multiple safeguards and encryptions were used to protect the data collected. Royal Roads University Ethics Board approved the ethical review before data collection.

1.5 Overview

This project will evaluate the research question of correctional officers' mental health and the resources currently available to them using both quantitative and qualitative data. Collecting

the stories, thoughts, and ideas directly from correctional officers employed in British Columbia will bring a personal element to the project and highlight the traumas that many officers face daily. Organizational theory, broken down into classical/traditional, neoclassical, and modern theories, will provide the data, results, and recommendation frameworks. The literature review will highlight existing research of first responders, including correctional officers, police, the Canadian military, and the resources and programming utilized within the various professions; the literature review will include the results of those interventions. The United States is the closest relative to the Canadian correctional system. Much of the research utilized in this project is extrapolated from the American literature due to the lack of Canadian literature surrounding correctional officers.

The results highlight the negative state of correctional officers' mental health and draw connections between the organization and feelings of abandonment and unimportance. In the discussion portion, the central focus of this project will be the respondents' words, with relationships and recommendations formed with their voices in mind.

The study findings highlighted issues that gave rise to three recommendations, including changing the organizational culture, reducing the stigma surrounding officer mental health, and implementing mandatory psychological check-ins for all staff. The future direction for correctional officers is dependent mainly on addressing the declining mental health of the population and increasing the amount of Canadian literature specific to the challenges of Provincial correctional officers.

1.6 Research Question

The current research question is, "What is the current state of mental health and resources for correctional officers in British Columbia?" Sub-questions include the following: "What currently available resources are being utilized?" and "What resources can be implemented into a correctional setting to improve the overall mental health of officers?" Demographic characteristics of officers and the environmental variables include age, gender, years of service, the institution's security, and the institution's population (male, female, or both).

While not the main focus, this study will look at potential relationships between employee mental health and organizational culture. The rapport between staff (particularly management teams) can be an essential indicator of the organizational culture's state. As stated in Schein and Schein (2017), employees band together over their interpretation and learning of an organization's culture for their survival; in a correctional setting, this may prove detrimental to mental and physical health. The study hypothesizes that, in theory, the unhealthier the organizational culture and structure, the more mentally (and possibly physically) unwell the employees will be, this theory is also reiterated in Ricciardelli et al. (2018a).

1.7 Hypothesis

Drawing from current research and experience, the hypotheses for this research are as follows: Hypothesis 1 states that officers will generally have a higher rate of mental illness or symptoms of illness than the general population. Hypothesis 2 is that the longer an officer is employed in a correctional setting, the more deteriorated their mental health will be. Hypothesis 3 states that most officers will not have utilized the resources available to them. Hypothesis 4

states that a high percentage of officers will have experienced a traumatic event for which they received no formal debriefing or intervention during their career.

1.8 Proposed Contribution

In Canada, there have been very few academic studies on the modern-day correctional officer. Officers experience high hypervigilance and overstimulation in their workplaces (Fritz et al., 2018); the workplaces identified often cause harm to officers' health and wellbeing. Officers also experience high rates of physical abnormalities such as ulcers, high blood pressure and cardiovascular disease (Ricciardelli et al., 2018b). Correctional officers in the United States also experience higher than average suicide rates and significantly reduced life expectancy (ToersBijns, 2012).

The contribution to academic and professional fields is currently to open the door for further research into the correctional officers' world. Academically, this study will add to the small list of existing Canadian academic research, allowing researchers to build off one another's work in some capacity. The hope for professional contributions is to put the onus back onto the employer to take care of their employees' mental health and wellness. To provide resource recommendations to the employer that will benefit both employees, employer, and the individuals in their charge.

1.9 Audience

The intended audience for this thesis project is BC Corrections as an organization and the officers within. The thesis will add to the existing literature pool regarding first responders'

mental health and well-being. After publication, the general public is also a target audience as public and political perception can be driving factors of policy change in the institution.

Chapter II: Theoretical Framework

2.1 Organizational Structure

Correctional institutions have been built on the same ideals for centuries (Mason et al., 2003). While the goal of correctional facility changes in waves from punitive to rehabilitation and back to punitive, the organizational structure remains the same (Mason et al., 2003). In BC Corrections, there is a Provincial Director, Deputy Provincial director(s), Warden, Deputy Warden(s) (DW), Assistant Deputy Warden(s) (ADW), Supervisors, correctional officers, and Security officers (Government of British Columbia, 2021). The provincial directors do not work in the facilities; the Warden, DW's and ADW's are considered "management," most of whom work on the "non-secure" side of the building in administrative positions. Supervisors are the highest-ranking "front-line" staff and work directly with prisoners and officers, and they are also the highest level of unionized employees. Correctional officers and security officers make up most of the front-line staff. Security officers have been employed for less than 18 months; and have not yet completed the full correctional officer training (Government of British Columbia, 2021).

This structure is indicative of most Government organizations and is hierarchical. This structure is required to ensure oversight and that politically charged decisions are made by the correct people (i.e., keeping a mentally ill prisoner in observation for an extended period or deploying the emergency response team). This structure can be described as the

classical/traditional organizational theory in that the organization is a machine, and the employees are cogs in that machine to keep it running (Scott, 1961). Classical organizational theory is generally more concerned with the institutional output (in this case, typically political output and public perception), with little regard for the people working in the institution. The BC Public Service states in its mission statement that

> Valuing people is the foundation of our ministry's work. Our organization's greatest asset is our people – their knowledge, skills, and experience. We value strength in diversity and work to support each other and our clients by fostering leadership, open communication, inclusiveness, collaborative teamwork, and personal and professional development (Government of British Columbia, 2018).

While the BC Public Service clarifies that people and organizational culture are of the utmost importance to the workplace, it is apparent that this has fallen short in the organizational culture that is BC Corrections. Power and control are critical in a correctional setting, and within the modernist theories of organizational culture, the balance between power, control and social culture is a delicate balance (Hatch & Cunliffe, 2006). According to Hatch & Cunliffe (2006), all organizations utilize three types of power and control – market control, bureaucracy, and clan control; however, all organizations favour one type of control over the others. The correctional organization favours a combination of both clan control and bureaucratic power. This integrated system is due to the intertwining need for control of both a large number of employees and the need to control an unpredictable and hostile environment and enforce compliance to a predetermined set of rules and policies. This use of clan control is due to the complex social

networks among correctional staff due to the nature of their work. However, employees governed by clan control are more likely to pursue personal and social interests over professional interests if the need presents itself (Hatch & Cunliffe, 2006 pp. 265).

Organizations built on classical theory are typically highly reactive rather than proactive and seek only to solve a problem once committed or identified (Scott, 1961). However, modernist organizational theories assert that the need for rational, proactive actions negated the inefficiencies of political involvement and motivations in organizations, as laid out in Table 1.0. Being able to efficiently neutralize the inefficiencies that often accompany politics, including votes, writing and approval of bills or policies, is essential to the smooth running of an organization. Being a proactive organization can enable workplaces to work through the politics of an issue before said issue needing immediate attention. Proactiveness can lead to policies and changes enacted much quicker when needed because the political issues have previously been agreed upon. (Hatch, Cunliffe, 2006 pp. 253).

Historically, Corrections have not had a proactive culture and tend to address problems only once identified in the public eye. Examples of these include the Ashley Smith case and the Eddie Snowshoe case, both of which spurred a class-action lawsuit filed against Canada's Government for their administrative segregation practices (Darrow, 2017). While these issues are critical, the officers' mental health and wellbeing inside these institutions have not been highlighted publicly. The classical organizational theory would argue that this makes the issue unimportant, as demonstrated in Table 1.0. Classical organization theory combined with a negative organizational culture can lead employees into a working environment that can be detrimental to their mental and physical wellbeing. When coupled with a difficult job and

exposure to traumatic incidents, it is not surprising that correctional officers may be struggling with depression, anxiety, hypervigilance, and post-traumatic stress injuries (Jaegers et al., 2019).

Table 1.0

Organizational theories

Classical Organizational Theory	Neo-Classical Organizational Theory	Modernist Organizational Theory
- More concerned with output than people	- Incorporates human behaviour into output and understands that people do influence performance	- Integration of both classical and neoclassical theories
- Labour is not divided by individuality, but by need	- Labour is divided by individuality only	- Organizations are open systems that interact with their environments constantly.
- Assumes that employees are stable enough for organizational changes	- Tries to identify the reasons behind employee behaviours at work – is solely a person-focused theory	- Considers organizations to be dynamic and constantly evolving, adapting, and

- Communication is solely from the top down	- - Communication comes from the social structure	interacting with the environment - - Communication at all levels is integral to success
- Power and control should be vested in one authority only	- Believes that power and control is based in the social system of employees	- Employs multiple facets of power and control including market, bureaucracy, and clan control.

2.2 Negative Workplace Culture

Organizational culture is known to impact the productivity and wellness of employees and the workplace as a whole. Schein & Schein (2017) define organizational culture as "The accumulated shared learning of that group as it solves its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, feel, and behave in relation to those problems" (pp.6). This line of thinking predicts that organizational culture is passed down from older or more senior employees to the new employees, which perpetuates the culture's cycle -- this is also true amongst management and provincial directors, allowing the negative culture to continue due to the bureaucratic power imbalance (Hatch & Cunliffe, 2006). A positive culture is

a productive way to teach and learn; however, it can be detrimental to an organization's health and wellness if that culture is harmful.

Schein & Schein (2017) further state that "The accumulated learning is a pattern or system of beliefs, values and behavioural norms that may be taken for granted as basic assumptions and eventually drop out of awareness" (pp.6). Accumulated learning is a vital part of organizational culture, especially when that culture is negative. The taught and followed behavioural norms become so typical to employees that they may no longer be recognized as harmful or damaging (Schein & Schein, 2017). An example of this in Corrections is the mentality that nothing affects employees. It does not matter because the negative culture has become a group identity and sense of self; this is often demonstrated when officers return to work too soon after an incident and have not received the necessary help. When the organization itself refuses to accommodate changes for an employee who has suffered a traumatic event, this can be retraumatizing. This was the case for Dave Backeland after being stabbed by a prisoner in segregation (Britten, 2020). Backeland requested accommodations from the employer to keep his PTSD from the incident at bay; however, he was looked at as "damaged goods" (Britten, 2020), and the organization was not able to accommodate his needs.

Schein & Schein (2017) identify the need to have separate leadership teams or people to address the task at hand and the group's social-emotional needs. Kaplan & Norton (1992) showed that effective organizations do not separate the two leadership teams: instead, integrating them into "socio-technical systems." Socio-technical systems allow the employer to pay attention to external and internal goals and health, which allows the organization to maintain itself positively (as cited in Schein & Schein, 2017, pp.8). In first responder professions, employees

band together for safety and security, which perpetuates any culture that has been adopted, whether that be positive or negative. Employees' survival (mentally or physically) depends on how well this cultural integration is accomplished (Schein & Schein, 2017).

Chapter III: Literature Review

Post-traumatic stress disorder (PTSD) is a trauma disorder caused directly or indirectly by witnessing or experiencing a traumatic event or events, including learning about events that happened to a friend or family member. PTSD can also be caused by repeated exposure to extreme adverse events or the details of said events. The American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5; American Psychiatric Association, 2013) uses police officers experiencing traumatic events and first responders collecting human remains as examples of repeated adverse events that may cause PTSD. Some symptoms of PTSD include recurrent intrusive memories and dreams of the event, dissociative episodes, prolonged distress to events that symbolize the event, physiological reactions to cues, avoidance, negative moods or mood-swings, memory gaps, persistent negative thoughts/cognitions, hypervigilance, and depersonalization (American Psychiatric Association, 2013). The Canadian Psychological Association (n.d.) estimates that 76% of Canadians will experience a traumatic event in their life, and of those, approximately 8% will develop PTSD. According to the Canadian Mental Health Association, emergency personnel experience PTSD at twice the rate of the general population (Canadian Mental Health Association, 2021).

Mental health and post-traumatic stress disorder (PTSD) in veterans, active military, and first responders have been heavily researched by members of the academic community since the influx in cases of "shell shock" during the first world war (1914-1918) (Jones, 2012). It has become common knowledge that first responders experience higher levels of PTSD and trauma than other professions. The people tasked with keeping society safe cannot effectively do their jobs if they are not mentally well. As of this writing, correctional officers are only considered first responders in British Columbia, Manitoba, and Ontario (MacAlpine, 2016; BC Government, 2018).

Being designated as a first responder provides quicker access to resources for mental health treatment and PTSD and changes how the worker's compensation board (WCB) approaches officers with stress injuries. In 2018, the Government of British Columbia enacted changes to the Workers Compensation Act to include presumptive coverage for first responders with PTSD and Post Traumatic Stress Injuries. These changes mean claimants no longer have to prove their injury is work-related to receive treatment (National Union of Public and General Employees, 2018). Academic literature has only just begun to explore PTSD and the mental health of correctional officers; however, the ample amounts of research for other first responders provide essential insights into the health of correctional officers. Research into police, military, public service personnel, and correctional officers in other countries highlights the issues that face many first responders. These issues include hypervigilance, PTSD, bullying/harassment, job burnout, accumulative stress, domestic violence, addictions, and workplace violence. The research also dives into mental health programs among first responders and active military,

including the Road to Mental Readiness program (Fiketoglu et al. 2019), different coping mechanisms and different ways to work through trauma.

3.1 Canadian and American Correctional Centres

While the research for Canadian institutions is lacking, Ricciardelli et al. (2018a) completed a study looking at workplace violence among Eastern Canadian Provincial correctional officers. This study focuses on the violence inside Canadian prisons and its effects on the ways correctional officers do their jobs and explores how correctional officers normalize the violence they experience. This study used qualitative semi-structured interviews on-site with 31 male and female correctional officers ranging from 28-58 years old in Provincial centres in Eastern Canada. The officers answered questions regarding their workplace roles, how their health and safety are affected at work, the positive aspects, and the challenges of working in a Provincial Correctional Setting.

These questions were the basis for interviews, and the conversation flowed based on the interviewee's answers, to which the interviewer could ask probing questions to gain insight into the profession. Ricciardelli et al. (2018a) also included field notes and interviewees' observations from Ricciardelli's visits to the facilities. The researchers thematically coded the qualitative data, letting the data drive the identified themes. Themes included ways of articulating information, views, and experiences. Themes were then divided into smaller topics such as similar experiences, views, and feelings, and finally, workplace violence types. The officers defined workplace violence in primarily the same ways - direct and vicarious, verbally and physically,

either against an officer or among prisoners. While officers acknowledged the violence, most reported it as part of the job and something they witness or are involved in daily.

The study found that to lessen workplace violence in a prison setting, the prison organization and conditions must first be addressed. The study also suggested that more research is needed in specific areas, including coping strategies and management's willingness to engage in disciplinary measures against prisoners. Not addressing the small budgets, overcrowding, understaffing, and reduced programming for prisoners, correctional officers, will continue to experience workplace violence's high mental and physical costs (Ricciardelli et al., 2018a).

In another study by Ricciardelli et al. (2020), 67 correctional officers from Ontario were interviewed to allow researchers to recognize the mental health needs of employees, determine how the complexity of their work affects them and the barriers to seeking resources. Barriers such as benefits, wages and shift work were identified as to why officers do not seek treatment for their mental health. Officers completed an online survey that included demographic information, self-reporting of mental and physical health symptoms and abilities and open-ended questions regarding workplace incidents and current resources. The study focused on answers to the final question asking participants if they had anything to add (Ricciardelli et al. 2020). The study found that correctional work may impact mental health and wellbeing and that the impact remains under-recognized. The study participants reported that the employer needed to address and recognize the mental health needs of the employees and the feeling of having fewer rights than the prisoners in their charge (Ricciardelli et al. 2020). The study concluded that both staff and employers need to recognize mental health on a larger organizational scale.

Many researchers have looked at the issues that can arise for correctional officers while working in the correctional facility. Hypervigilance has been identified as a response to trauma, which is a product of extreme circumstances such as violent altercations, drug overdoses and violence. Violence includes prisoner assaults, staff assaults, medical emergencies, self-harm, and suicide attempts (Fritz et al., 2018). Fritz et al. (2018) focus on workplace hypervigilance in safety-related workplaces where the risk of violence and trauma is higher than in other professions. This study is significant because hypervigilance is one of the diagnostic criteria for post-traumatic stress disorder, according to the American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5). The researchers sent out surveys to 14 American correctional facilities and received a 54% response rate from front-line officers, most of whom were men. All the respondents in this study reported medium to high levels of workplace hypervigilance - the results also showed a small to moderate correlation with PTSD and anxiety. Fritz et al. (2018) controlled for veteran status, recent physical confrontation with a prisoner, facility security level, tenure, and gender. Recent physical confrontation with a prisoner and security levels are associated with higher workplace hypervigilance levels, while initial research indicates that female correctional officers report higher workplace stress levels (Fritz et al., 2018).

Fritz et al. (2018) suggest that workplace hypervigilance has a positive relationship with exhaustion, physical symptoms, and work-to-family conflict. Hypervigilance was also found to be related to sleep quality and sleep quantity. Exhaustion was included as hypervigilance can cause sustained physiological functioning and physiological arousal leading to decreased quality and quantity of restorative rest. Physical symptoms include deterioration of immune,

cardiovascular, and endocrine systems, including digestive problems and headaches (Fritz et al., 2018). The findings by Fritz et al. (2018) suggest that hypervigilance caused by violent work environments and the need to control prisoner's behaviour can impact officers' home lives. Fritz et al. (2018) included increased levels of work-to-family conflict, decreased quality and quantity of sleep, and decreased physical health to be among the most impactful. Fritz et al. (2018) is very alike in controls, criteria, and an almost identical response rate to a study done by Samak (2003).

Samak's (2003) study is one of the most extensive Federal Canadian correctional officers' analyses on record. Samak (2003) distributed 5000 surveys to correctional officers working in the administrative regions of correctional Service Canada, and 2432 officers participated (another 100 surveys were collected past the deadline and were not included in the statistical analysis), accounting for 43% of correctional Service Canada officers. The study collected variables including gender, region (Atlantic, Quebec, Prairies, Ontario, or Pacific), security level of the institution, prisoner population (male/female) and service tenure to cross-tabulate the results. The methodological framework was divided into four sections: location and institutional characteristics, job quality, job perception, and impact on life: job-related incidents and illness, and personal information (including participants' roles as parents).

The data entry was completed by Group Ad Hoc Recherche of Montreal using SPSS v.10. The statistical analysis was performed by the Prevention Group of the CSN Labour Relations Department using SPSS and excel processing (Samak, 2003, pp. 6). This study is currently one of the cornerstones of research into correctional officer mental health and wellness in Canada; it identifies many issues among employees with correctional Service Canada.

The study was completed at the request of the Union of Canadian correctional officers (UCCO) and prepared by the Prevention Group. The study was intended for all UCCO members working in all CSC facilities to understand better the relationship between the officers' working conditions and their health and wellbeing (Samak, 2003, pp.5). The questionnaire specifically assessed the physical and physiological demands placed on officers, and subsequently, their ability to perform their duties after 25 years of service. The correlation between job stress and years of service is one of the most significant differences between the Samak (2003) and Fritz et al. (2018) studies. The study indicates a 20% difference in responses to "very stressful" work environments between officers with less than two years' experience and those with 15 or more years, with extended service correlating with higher stress (Samak, 2003).

Interestingly, the rate at which officers deemed their jobs "very stressful" rose steadily as their years of service rose (Samak, 2003, pp.11). Samak (2003) also found that between 60-65% of officers reported that their workplace stress affected their lives negatively "often" or "very often." These appear to be affected by the violence and environment that officers work in and can result in harassment between peers, making the environment an even worse workplace.

3.2 Trauma Among First Responders

While not specific to correctional officers, the American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5) lists one of the criteria for developing PTSD, as "Experiencing repeated or extreme exposure to aversive details of the traumatic event(s). " Due to the nature of the work, PTSD or PTSD symptoms are more likely to affect correctional officers, as noted in the trauma chapter of the American Psychiatric

Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5). Trauma is often associated with PTSD symptoms. However, according to the DSM-5, there are many specific trauma disorders, such as adjustment disorders, associated with PTSD (American Psychiatric Association, 2013). Witnessing brutal acts of self-harm is a reality for correctional officers and can take an emotional toll on officers, leading to PTSD and other post-traumatic stress injuries (Smith et al., 2019).

In a qualitative study out of the United States that involved surveys, 60% of officers at 785 state facilities responded to questions assessing prevention and treatment in response to offender self-harm (Smith et al., 2019). Officers were asked open-ended questions via telephone regarding their thoughts and feelings towards offender self-harm behaviours. Smith et al. (2019) concluded that officers had extensive experience in dealing with self-harm. Most officers reported self-harm as manipulative behaviour and not attributing it to mental health, reinforcing the disassociation callousness often associated with trauma. Officers mostly denied that offender self-harm had any psychological effect on the officers or their peers and expressed a lack of clear or effective institutional response to offender self-harm (Smith et al., 2019).

In a systematic review completed by Regehr et al. (2019), the prevalence of PTSD among correctional officers was three times higher than the national averages in the Netherlands, Canada and The United States. The review began with a general search which yielded 3509 articles of interest. After screening the abstracts to determine if the articles fit within the review parameters, 224 articles were selected (Regehr et al., 2019). Next, the articles were read in their entirety to determine if they met the standard quality review and data extraction and were specific to correctional officers. From this, six articles were selected – five of which were peer-

reviewed, and one that met the quality review for this study without peer review (Regehr et al., 2019).

Among the articles in the review, the rates of PTSD among correctional officers were 15% in the Netherlands, 29.1% in Canada, and 34% in The United States (Regehr et al., 2019). Prevalence of Major Depressive Disorder ranged from 24%-59.7% in the three countries studied. The review found that PTSD was most strongly linked to exposure to violence and workplace injuries. Regehr et al. (2019) determined through this review that the high rates of PTSD among correctional officers are concerning and require occupational health and safety interventions. The review also briefly highlights the impacts of organizational culture, lack of autonomy in decision making, and suboptimal working conditions as factors that contribute to the high rates of PTSD among officers (Regehr et al., 2019). Regehr et al. (2019) also noted that organizational support, a positive image of the workplace, and strong interpersonal relationships at work serve as mitigating factors for the development of PTSD and provide the opportunity for intervention.

In another study of 320 American officers, 59.6% of female officers and 46.4% of male officers showed signs associated with PTSD, including disassociation (Jaegers et al., 2019). The results of this study are consistent with the statement in the DSM-5 (American Psychiatric Association, 2013) that first responders have higher rates of PTSD than the general public. However, Jaegers et al. (2019) demonstrates that the rates of PTSD among correctional officers may be significantly higher than what the American Psychiatric Association (American Psychiatric Association, 2013) assumes; with rates of PTSD symptoms in correctional officers as high as 59% (Jaegers et al., 2019). The higher rates of PTSD shown by Jaegers et al. (2019) is crucial because it shows that correctional officers need resources and interventions swiftly and

effectively. This study included a dependent variable of PTSD symptoms using the PCL-2 checklist to measure PTSD and independent variables of psychological wellbeing, anxiety/depression, emotional labour, emotional support, self-efficacy, and burnout (Jaegers et al., 2019).

People who experience high rates of trauma and violence in the workplace leading to high rates of anxiety, depression, trauma disorders, and PTSD are more likely to bring these traumas into their everyday lives outside of work. Throughout their careers, officers can be subjected to higher levels of violence and traumatic events and are more prone to symptoms of PTSD and trauma disorders than other professions (DSM-5; American Psychiatric Association, 2013). Higher risk of trauma disorders can lead to increased risk of substance abuse, domestic abuse, self-harm, and suicide, as well as "exhaustion, cynicism, detachment, ineffectiveness and lack of personal accomplishment" (Finney et al., 2013, pp.1). To combat these symptoms many officers, withdraw internally, resulting in decreased personal and social interactions and abuse of drugs or alcohol. Further research is needed on this topic - specifically within a Canadian context, as most research stems from the United States.

In another study by Ricciardelli et al. (2018b) on the personal trauma experiences of public safety personnel, it was found that members who are employed in public safety roles experience a higher-than-average rate of self-reported occupational stress injuries. These professions include dispatchers, Canadian Border Services, correctional Services, pre-medicine students, firefighters and police (Ricciardelli et al., 2018b). Ricciardelli et al. (2018b) highlights the issues that many public services personnel face, including professions that many people may

not immediately regard as first responders, including correctional officers and Canadian border service agents.

The highlighting of other, often forgotten first responder professions shows that police and active military are not the only professions that experience high trauma rates. Responses were coded using the NVivo Pro qualitative coding program in addition to an inductive approach to identify reliable codes for each of the 556 males and 269 females; themes were then broken down into subcategories, followed by axial coding. Public service personnel (PSP) reported high rates of cardiac issues, headaches, back pain, ulcers, digestive issues, substance abuse, depression, self-marginalization and distrust, feelings of worthlessness, hopelessness, fatalistic attitudes, and adverse effects on their relationships with partners, family, and their children. (Ricciardelli et al., 2018b).

PSP reported a lack of resources for their mental health in a government system that does not care about their wellbeing. Lack of resources appeared to be caused by systemic issues, including employees, feeling ignored by management and organizations, believing that their employers have left them behind. The study concluded that many PSPs experience trauma that is ignored by governing bodies, which can cause a sense of alienation and powerlessness. The study identified three key areas in which PSP desired attention, including (1) recognition of their contributions, (2) recognition of the mental health challenges that can accompany their jobs, and (3) a demonstrable effort towards supporting PSP. Ricciardelli et al. (2018b) also identified the need for evidence-based treatment specific to each PSP group's needs to tackle the mental health stress that accompanies PSP workplaces effectively. The study was limited by participant self-selection and reporting (Ricciardelli et al., 2018b). Ricciardelli et al. (2018b) contribute to the

literature by identifying mental disorders among PSP and providing PSP with a forum for their voices to be heard and highlights the need for a national plan to provide service to public service employees.

3.3 Organizational Culture

A meta-analysis by Finney et al. (2013) reviewed 129 studies, and after reviewing the studies, 121 were removed from the analysis because they did not meet all the inclusion criteria. These criteria were that the studies chosen identified correctional officers (COs) as a uniquely identified group, using stress or employee burnout as a diagnostic measure, a description of the job stress/burnout correlation, and the study used only officers employed in adult custody (Finney et al., 2013). After applying these criteria, this left eight studies for this review. The review categorized stressors using Marshall's (1976) model of job stress, which includes five factors: intrinsic job stressors, role within the organization, career development, organizational structure, and climate. The review showed that COs have higher job stress levels than supervisory and non-custody positions within corrections. The review disseminated that burnout and job stress among COs can cause unsafe facilities, high turnover, increased sick time, lower productivity, and adverse personal outcomes such as work-family conflict. Finney et al. (2013) found that organizational structure and climate have the most impact on CO Job stress and burnout. The review also indicated that other law enforcement personnel (police officers, probation officers, and parole officers) experience similar job stress and burnout levels (Finney et al., 2013). This study is significant for correctional organizations because many organizations

struggle with having many officers off work due to physical or mental injuries and burnout. Identifying correctional officer burnout issues can enable organizations to intervene before a traumatic experience becomes an occupational stress injury.

Limitations of the review were identified, including most of the studies (6) being from the United States, which may lessen generalizability to other countries and types of institutions. Secondly, the review only looked at job stress and burnout among front-line COs and no other employees in the correctional field, so the results may not apply to other positions (Finney et al., 2013). All the studies looked at were public facilities rather than private (for-profit) facilities, which was identified as a limitation; however, it makes the study results more easily transferable for this study. The review concluded that the occupational structure and climate of the correctional centre had the most consistent relationship with CO burnout and job stress (Finney et al., 2013). In order to lessen occupational stress injuries and burnout, the structure and climate of the workplace must be changed by improving communication between management and correctional officers (Finney et al., 2013). From the organizational lens, burnout and officer stress leads to decreased job involvement, more absenteeism and adverse safety outcomes (Finney et al., 2013).

In addition to burnout and decreased job involvement, Kouvonen et al. (2006) analyzed a cross-section of the Finnish public sector study of 28,894 women and 7233 men. The study found that employees who have a high ecological effort-reward imbalance were 40% more likely to exhibit more than three lifestyle risk factors than employees who have low effort-reward imbalance (Kouvonen et al., 2006).

All of the employees in Kouvonen et al.'s (2006) study were Finnish hospital employees that were part of an ongoing Finnish public sector survey. The study measured effort at work with one question and rewards at work with an additional three questions. Lifestyle risk factors included were smoking, heavy drinking, physical inactivity and being overweight, with employee scores ranging from 0 to 3 risk factors (Kouvonen et al., 2006). The study found moderate support for the hypothesis that high effort-reward imbalance leads to higher risk factors. However, the study also found higher risk factors associated with low effort-low reward effort-reward imbalance led researchers to believe it may be the reward level only that leads to higher lifestyle risk factors (Kouvonen et al., 2006).

Kouvonen et al. (2006) determined that high cost – low gain conditions at a workplace could lead to feelings of frustration, low job satisfaction, negative attitudes at work and general apathy. Kouvonen et al. (2006) also stated, "the alienation from work could be associated with the adoption of unhealthy behaviours," which led to the possibility that workplaces characterized by high effort-reward imbalance used risky behaviours as a coping mechanism for their unstable work (Kouvonen et al., 2006). While this study was completed with hospital employees – many first responder professions are also unstable, unpredictable and highly stressful, including correctional officers. This study highlights the need for support and positive organizational culture from management teams instead of leaving employees to feel abandoned or under-appreciated.

Individuals working in many different first responder professions have been studied thoroughly, including lifestyle risk factors, family-to-work and work-to-family conflict. However, correctional officers are often left out of these. Obidoa et al. (2011) looked at work-to-

family conflict within a correctional officer population at two State Prisons in the Northeastern United States. Factors studied included a sense of coherence, physical health, psychosocial job characteristics and work-to-family conflict. The study included 220 correctional officers from two facilities and utilized The Center for Epidemiologic Studies Depression Scale (CES-D-10). The mean CES-D score was 7.8, with 31% of respondents having a score of 10 or more, indicating severe psychological distress (Obidoa et al., 2011). Depressive symptoms were high among officers, and work-to-family conflict was a critical factor in psychological distress; however, psychosocial job characteristics were not related to depression.

3.4 Current Programming for First Responders

Many first responder professions employ mental health education programs such as the Road to Mental Readiness Program (R2MR) (now called the Working Mind First Responders). R2MR is an "education-based program designed to address and promote mental health and reduce the stigma of mental illness in a first-responder setting" (Mental Health Commission of Canada, 2018). The Canadian military regularly utilizes this program among its members. It estimates that 70% of Canadian Armed Forces members have received some sort of mental health training in the past five years (Lee et al., 2019). Fiketoglu et al. (2019) tested the Road to Mental Readiness Program among Canadian Forces Recruits at various times throughout their recruit training by implementing the intervention at week two of training for one group and a delayed intervention at week nine of the training for another group.

The study found that psychological functioning, resilience, and performance showed no beneficial changes with the Road to Mental Readiness interventions. In contrast, attitudes

surrounding mental health service use, intentions and behaviours showed small benefits that faded over time without routine mental health education as part of their routine training (Fiketolgu et al., 2019; Lee et al., 2019). The Road to Mental Readiness program may work in high fidelity conditions but may not result in positive effects if implemented poorly or without organizational context. Overall, the Road to Mental Readiness sometimes resulted in positive effects. Canadian Armed Forces members who had been deployed and received the Third Location Decompression Program reported easier community reintegration after six months, and most members with the training had better reported overall well-being than those without (Lee et al., 2019). The Third Location Decompression Program and the Road to Mental Readiness Program are examples of programming aimed at reducing work-related stress and increasing coping mechanisms through education and training for employees working in high-stress and unpredictable workplaces, such as first responders and active military.

Szeto et al. (2019) also examined the Road to Mental Readiness program among first responders. They found the program effective at increasing participants' perceptions of resiliency and mental health stigma reduction. Providing the Road to Mental Readiness training for recruits and then providing the TLD to active members returning home was found to reduce the instances of PTSD among active military personnel (Lee et al., 2019). These studies may be transferable to correctional officers because both professions are high-intensity, high-risk environments that could benefit from mental health resources. Correctional officers work in continually changing and unpredictable environments and may also benefit from ongoing mental health education as part of routine training. While it may not be the most impactful, the Road to Mental Readiness program still has merit and positive aspects. However, Provincial correctional officers have

never been offered R2MR as part of their training or optional program. It is currently only readily available to the Canadian Armed Forces (Government of Canada, 2019).

Psychological debriefing is a widely utilized intervention in many first responder professions, including correctional officers. Deahl (2000) completed a review of the existing literature surrounding the debate on whether or not psychological debriefing is helpful or harmful following a traumatic incident. Deahl (2000) found that it is still uncertain whether or not debriefing reduces the risks of long-term psychological trauma after a review. The review identified risks associated with debriefing, including secondary trauma, resentment for mandatory participation and an overenthusiasm for preventative methods that could delay resource allocation or diagnosis for those involved (Deahl, 2000).

Deahl (2000) highlighted those feelings of anger, resentment, and other adverse reactions caused by insensitive and ill-timed debriefings and noted that psychological debriefing should occur within a few days of the incident and as locally as possible. Deahl (2000) also notes that psychological debriefing should not be as widely accepted as it currently is without research determining the efficacy of debriefing. Overall, Deahl (2000) could not conclude if psychological debriefings following trauma are helpful or harmful, continuing the debate within the psychological community.

In an article published in the Medical Journal of Australia, McFarlane (2003) states that superficial early interventions to trauma (such as debriefings) are appealing as they are an inexpensive way to deal with traumatic events. McFarlane (2003) argued that debriefing has little to no value in preventing psychological disorders following a trauma that longer-term, more expensive programs are needed. After World War two, it was believed that people that

experience repeated traumatic events (such as war) would benefit from psychoeducation and talking about their emotions regarding events – this has since been determined not to be the case (McFarlane, 2003).

McFarlane (2003) highlights the need for a more extended observation period, as long as a year following a traumatic event. That mental health first aid is necessary following a traumatic event. There is no evidence that psychological debriefing provides any long-term effects. Debriefing can, however, provide a means to screen for and treat trauma disorders in the future with ongoing evaluation (McFarlane, 2003).

3.5 Coping Mechanisms

Another part of mental health while working in a high-stress and unpredictable environment is coping mechanisms. Coping can be different for each individual and coping flexibility may be essential in first responders' well-being (Bonanno & Burton, 2013; Rodin et al., 2017). Rodin et al. (2017) looked at coping flexibility, post-traumatic stress disorder and depression among human rights advocates, many of whom have experienced traumatic events and places, including prison (pp. 328). Coping flexibility may be associated with lower post-traumatic stress disorder and major depressive disorder among trauma-exposed people, and flexibility is consistent with better adjustment after a traumatic experience (Rodin et al., 2017). Research (Finney et al., 2013; Jaegers et al., 2019; Regehr et al., 2019). shows that correctional officers experience high burn-out rates, stress accumulation, workplace violence, domestic violence, and trauma, all of which are symptoms and causations of post-traumatic stress disorder

as identified in the American Psychiatric Association's (2013) Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5).

Types of coping mechanisms may vary for different people and situations; various coping components include context-sensitivity, repertoire, and response to feedback (Bonanno & Burton, 2013 pp. 591, 593, 595.). For coping mechanisms to be effective, they must consider the characteristics, context and the fit between the context and the mechanism. When the level or type of stress is uncontrollable, changing, and the situation is complex, reprisal may be a more effective manner of coping (Troy et al., 2010, as cited in Bonanno & Burton, 2013). Bonanno & Burton (2013) highlight the many different types of stressful situations individuals may experience. With this comes many different coping strategies, including the variability in the coping mechanisms used based on personality and individual differences. The variations in coping mechanisms between situations where the stress is controlled versus when the stress is uncontrolled have also been noted in that flexible coping is more successful when stress can be controlled. Further study is needed in the discipline of emotions and coping mechanisms, but research suggests that flexible coping mechanisms and an ability to redirect based on feedback may be essential in high-stress and uncontrollable situations (Bonanno & Burton, 2013; Rodin et al., 2017).

Research (Obidoa et al., 2011; Ricciardelli et al., 2018b) focusing on correctional officers, active military, and other first responders shows that the rates of PTSD among first responders are significantly higher than the general population. A study by Valentine et al. (2012) highlighted the high number of domestic violence reports among Florida correctional officers, including witnessing domestic violence, being a victim or perpetrator, or hearing about

domestic violence incidents involving co-workers. The study highlighted that those persons who have experienced childhood domestic violence might demonstrate an ability to change the amount of stress they can tolerate, potentially leading them toward crime because their stress tolerance is higher than many others (Velentine et al., 2012). The study suggests that if workplaces were made aware of the high rates of childhood domestic violence among their staff, treatment could be offered and utilized. Valentine et al. (2012) also highlighted the hope for the future and potential solutions for correctional officers and identified gaps in the research that need to be addressed before solutions can be implemented, including determining the complex cause-and-effect relationship between workplace stress and domestic violence among correctional officers.

Chapter IV: Methodology

4.1 Research Design

The research design is a cross-sectional mixed-methods approach that will simultaneously collect quantitative and qualitative data (Creswell & Creswell, 2018) through an online survey design. Quantitative data will be gathered at the beginning of the survey, while qualitative data will be gathered separately at the end. This survey design can enable the generalizability of data from a population sample to make inferences about the correctional officer population (Creswell, 2014). Online surveys enabled the gathering of large amounts of information from a large population. Results were analyzed in three stages, the SF-36v2, the demographic data and the qualitative data. As developed by Glaser & Strauss (2004), grounded theory was utilized to code the qualitative data. Each question was coded individually except for

questions 27 and 28, which were coded together due to the relationship between questions. As developed by Glaser & Strauss (2004), the qualitative data were coded to enable the research to temporarily test a hypothesis by first coding the data and then assembling and analyzing the findings.

4.2 Methodology

The participants for this study are the front-line correctional officers at Provincial institutions in British Columbia. These centres include Fraser Regional Correctional Centre, North Fraser Pretrial Centre, Surrey Pretrial, Vancouver Island Regional Correctional Centre, Ford Mountain Correctional Centre, Allouette Women's Correctional Centre, Nanaimo Correctional Centre, Kamloops Regional Correctional Centre, Prince George Regional Correctional Centre, and Osoyoos Correctional Centre. The British Columbia General employees Union (BCGEU) provided access to the employees, with the BCGEU sending the survey out to the employees to add a layer of anonymity.

This study's independent variables are the organizational culture and mental health resources available to officers. The dependent variable is the current state of officer mental health, the availability of resources to officers. The survey used was the OPTUM SF-36v2 health survey, and results were analyzed using the corresponding Quality Metrics PROCoRE analysis program (Quality Metrics, 2021).

The OPTUM SF-36v2 was chosen over other options for its ability to draw a picture of a respondents overall mental health, as opposed to specific diagnosis (such as PTSD), as an overall snapshot of mental health is the aim of the current study. The OPTUM SF-36v2 comprises 11 parts, including general health, mental and physical health compared to one year ago, impact on daily functioning and activities, mental and physical health in the past four weeks, body pain, emotional functioning, and true or false questions. The survey's focus is to identify how participants feel and how well they can complete typical daily activities (OPTUM SF-36v2, 2021). Also added were workplace-specific, resource and open-ended interview-style questions. The survey began with demographic variables, followed by the SF-36v2, and ended with open-ended qualitative interview-style questions. The survey included links to available resources and a written debrief that thanked participants for their time and provided multiple mental health resources and contact information. Resources included the employee and family assistance program (EFAP), crisis helplines, first responder-specific helplines, and suicide helplines. Officers were required only to answer the informed consent question, and all other questions were skippable based on the respondent's desire or level of comfort in disclosing.

Non-answered questions may have impacted the study results as the questions most often skipped were the more sensitive questions regarding mental health. Response bias was checked using wave analysis, checking the data response rate weekly to determine any change in the number of non-responses (Creswell, 2014). Some of the participants chose not to answer some qualitative questions; however, the overall impact of the skipped questions appears to be minor and able to be mitigated by the validity and reliability of the qualitative data. The qualitative data were coded from the raw data into themes using grounded theory. Grounded theory includes

reading through several complete and incomplete surveys to identify emerging codes and themes and then the entirety of the qualitative data before beginning a codebook (as outlined in Appendix D). In doing this, any outliers present due to non-responses of essential questions were identified before the start of coding, ensuring that these responses (or non-responses) were not grouped or inadvertently interrelated with one code's overall meaning (Cresswell, 2014).

Descriptive survey research allowed statistical analysis using Microsoft Excel with pre-planned and structured questionnaires, including questions on institutional and employee demographic characteristics, which allowed connections to be made and to measure relationships between demographic characteristics, mental health, and resources.

First-hand experiences and stories from officers who have worked in different types of institutions with diverse populations of prisoners are vital to painting a picture regarding what officers' deal with daily. Using open-ended questions enabled officers to talk about their experiences and how they felt they reacted to those situations enabled the research to build a picture of the workplace differences between correctional officers, institutions, and other occupations.

4.3 Data Collection

Data was collected through an online survey that included questions regarding relevant personal and workplace demographic variables, including age range, years of service, gender, the gender of prisoners and security of the institution at which they work. Questions were structured as a closed-ended survey type, ranging from yes/no to Likert scales and open-ended interview-

style questions (Creswell & Creswell, 2018). This mixed-methods approach enabled the study to draw relationships quantitatively and qualitatively based on a participant's experiences. Once participants completed the survey, their data could no longer be removed as there were no identifying markers in the raw data.

One thousand three hundred seventy-four front-line correctional officers employed across the ten centres in British Columbia received the survey. The email was headed with a brief introduction of the research team and what the survey intends to measure. A link to the study via Survey Monkey and a password were provided. Upon clicking the link, the participant was redirected to a letter of informed consent. The informed consent page was designed as a disqualification page in which the respondents must choose "yes" or "no." If respondents answered "no" to informed consent, they were redirected to a survey disqualification page. Participants were made aware they may exit the survey at any time while answering questions with no consequence or data retention. After the survey was complete, participants were taken to a debrief page with a list of mental health resources if the employee is struggling, knows someone struggling, or has found the survey to be particularly distressing. A thesis-specific email address and the thesis committee members' contact information were also available had respondents wished to contact anyone regarding the study.

4.4 Data Analysis

Data analysis was completed in three parts: (1) analysis of the SF-36v2; (2) analysis of qualitative data; and (3) analysis of quantitative demographic data. The SF36v2 data were coded and imported into the Quality Metrics PROCoRE data analysis program (Quality Metrics, 2021).

Before analysis, a total of 35 datasets were removed. Four datasets were removed due to respondents answering "no" to the demographic question "are you currently employed at a Provincial correctional facility in British Columba?" because respondents must be current employees of BC Corrections to qualify for the study. Ten datasets were removed because respondents proceeded beyond the informed consent page but did not answer a single question. Twenty-one datasets were removed due to two or fewer questions being answered, resulting in insufficient data to complete the dataset with estimations based on prior answers.

The questions were coded as follows (presented in Table 2.0): GH01 (General health 01), HT, PF01-PF10 (physical functioning) RP01-RP04 (role physical), RE01-RE03 (role emotional), SF01 (social functioning), BP01 (body pain), BP02, VT01 (vitality), MH01-MH03 (mental health), VT02, MH04, VT03, MH05, VT04, SF02, and GH02-GH05. Abbreviations for the questions and subsequent scores are PF (physical functioning), RP (role physical), BP (bodily pain), GH (general health), VT (Vitality), SF (social functioning), RE (role emotional), MH (mental health), PCS (physical component summary), and MCS (mental component summary) (See appendix A).

Table 2.0

SF-36v2 Codebook

Code	Meaning
GH	General Health
PF	Physical Functioning
RP	Role Physical

RE	Role Emotional
SF	Social Functioning
BP	Body pain
VT	Vitality
MH	Mental Health
PCS	Physical Component Summary
MCS	Mental Component Summary

Five steps were completed according to the instructions from the PROCoRE software to score the SF-36v2 data: cleaning and item recoding, item recalibration, computation of raw scores, the transformation of raw scale scores, and transformation of 0-100 scores to t-scores. Three additional steps were then completed to score the component summary measures. First, the data were checked for out-of-range scores and converted to missing values by counting the number of responses within range, dividing that number by the total number of items in the survey, and multiplying the result by 100. Ten items were then reverse coded to indicate a higher response value: BP01, BP02, GH01, GH03, GH05, VT01, VT02, SF01, MH03, and MH05.

Recalibration was necessary for two items to ensure a linear relationship between health scores; these were GH01 and BP01. GH01 recalibration score was adjusted from 1-5 to 1, 2, 3.4, 4.4, and 5; BP01 scores were adjusted from 1-6 to 1, 2.2, 3.1, 4.2, 5.4, and 6. The raw scores were then computed using the items' final values' algebraic sum in each scale. The raw scores were then calculated into a 0-100 scale by converting the lowest and highest possible scores to

zero and one hundred, respectively, with scores in between representing the possible score percentage.

The final step in score transformation was to compute the 0-100 scores into t-score based scores. The T-score transformation was completed by standardizing each survey using a z-score transformation. Z-scores were computed by subtracting the mean 0-100 score from the 2009 general U.S. population for each SF-36v2 survey score, dividing the difference by the corresponding scale standard deviation, based on the recall period (four weeks for the present study). The z-scores are then linearly transformed to have a mean score of 50 and a standard deviation of 10; this is achieved by multiplying each SF-36v2 health survey score by ten and adding the resulting product to 50.

Three steps were followed to score the summary component measures. Step 1 was the standardization of the SF-36v2 survey scale using the z-score transformation described above. Step 2 was the aggregation of the scores, which involved computation of the aggregate scores for the physical and mental summaries using weights from the 1990 General U.S. population. The aggregate score was computed by multiplying the z-score of each scale by its associated physical or mental factor coefficient and summing the eight products. The final step involved changing the aggregate physical and mental scores to the t-based scoring by multiplying each aggregate summary score obtained from step two (outlined above) by ten and adding the resulting product to 50.

T-scores were selected based on the 2009 U.S. general population and the standard recall period of four weeks (Figure 1.0). Maximum data recovery was enabled for missing data estimation to ensure the maximum amount of data was analyzed, including datasets that were not

complete. The maximum data recovery software applies a value to an item rendered missing as long as at least one item in that scale has valid data. PCS and MCS are only calculated when at least seven of the eight profile scales have valid data. The remaining quantitative data included participants' age, years of service, gender, the institution's security level, and gender of the prisoners housed in their institution.

Figure 1.0

SF-36v2 T-Scores [2]

	Scales								Summaries	
	PF	RP	BP	GH	VT	SF	RE	MH	PCS	MCS
Mean	51.76	44.98	45.19	45.79	40.21	37.95	37.63	38.57	50.94	34.28
25th Percentile	49.88	36.95	38.21	37.97	34.77	27.26	28.31	29.94	45.32	24.73
50th Percentile (median)	55.63	48.17	46.68	46.05	37.74	37.29	38.76	37.79	51.48	33.99
75th Percentile	57.54	54.91	51.51	53.19	46.66	47.31	45.72	48.25	56.84	43.76
Standard Deviation	7.62	10.50	9.31	9.97	9.39	11.49	12.44	10.96	8.45	12.63
Min	25.01	21.23	21.68	18.95	22.89	17.23	14.39	11.63	19.41	4.92
Max	57.54	57.16	62.00	66.50	61.51	57.34	56.17	58.72	68.34	62.13
N	195	194	195	195	191	195	195	191	191	191

P=<0.001

Thematic coding grounding theory was used for the analysis of qualitative data. Coding was completed in six steps: identifying the research concern and theoretical framework, selecting the relevant text, creating a list of named repeating ideas within the relevant text, organizing those ideas into themes (Appendix D), organizing themes into theoretical concepts, and finally retelling the participants' stories in theoretical constructs (Auerbach & Silverstein, 2003).

Each qualitative question was coded individually except for questions 27 and 28, which were coded together due to the similarity of questions designed to help participants share their

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stories. Themes (Appendix D) were organized into two separate and concurring theories -- neoclassical organizational theory and modern organizational theory. Neo-Classical and modern organizational theories are interrelated inside the institutional environment as the management team is always involved with activities in the facility. It is the point at which management intervenes and takes control of the situation, determining which theoretical framework each theme fits into.

4.5 Verification

The data-quality evaluation (DQE) ensures the SF-36v2 data is of the highest quality and validity, with quality indicators for completeness of data, responses within range, estimable scores, convergent validity, and discriminant validity. Four checks were utilized to ensure the qualitative data was of the highest quality, including rich descriptors and codes, significant reference materials of relevant research, bias identification and the presentation of outliers and discrepant information. The PROCoRE program generates an RCI (response consistency index) which consists of 15 checks between paired survey items, with the best score being zero and the worst score being 15. The RCI is calculated for all respondents and must fall above the T-score to ensure validity; this was done by dividing the number of respondents whose RCI score is zero (Z) by the total number of respondents (N) and multiplying by 100 (Z/N*100). The program also scores internal item consistency by comparing the item score to its hypothesized scale. If the score is higher than or equal to .40, internal consistency is established, with the quality indicator satisfactory when at least 90% of the hypothesized scale items are .40 or greater.

The final validity checks are discriminant validity and reliable scale scores. Discriminant validity tests the scores of hypothesized question groupings (i.e., PF01-PF10). The program examines the correlations between scores and their hypothesized scores, examines the correlations between the other seven scales and computes the percentage of items that correlated higher than their hypothesized scale. The data is satisfactory when at least 80% of the correlations are higher than the alternative item-scale correlations. Finally, the reliable scale score is computed using Cronbach's alpha coefficient based on the number of items in the scale and the item similarity. When the coefficient is greater than or equal to .70, scale reliability is established. T-scores for DQE are as follows, completeness of data 90%, responses within the range 100%, consistent responses 90%, estimable scale scores 90%, item internal consistency 90%, discriminant validity 80%, and reliable scales 100%.

All data quality indicators met the satisfactory validity t-scores and were as follows, completeness of data 98.6%, responses within the range 100%, consistent responses 95.9%, estimable scales without Missing Data Estimation 97.3%, with half-scale Missing Data Estimation 98.3% and with full-scale Missing Data Estimation 98.6%, item internal consistency 100%, and reliable scales 100%. The discriminant validity quality indicator passed with a score of 97.1%; however, three items failed the discriminant validity test: GH04, VT01 and MH01. Items that fail the discriminant validity test are correlated more strongly with an alternative scale than with its hypothesized scale; in this case, the discriminant validity failings were not statistically significant.

The following strategies were employed to ensure the internal validity of the qualitative data (Creswell, 2014):

1. Used a rich, thick description to bring readers into the setting of the stories and experiences, enabling discussion. This allowed results to become more realistic to the reader.
2. Using significant and relevant reference materials as a tool to criticize and evaluate conclusions of the research. This allowed results to be tested for assumptions and prejudices during the coding process.
3. Clarify the biases brought to the study. Reflectivity is essential when using qualitative methods. It informs the readers that stories and themes may have been interpreted differently due to the researcher's background.
4. Presented discrepant information to show the reader the different perspectives and experiences of the participants. This ensures validity if evidence for the main themes is provided before discrepant information is included.

Chapter V: Results

5.1 Quantitative Results

Two hundred thirty-one responses (N) were collected in total for a response rate of 16.81% (N/1374*100). After removing the datasets named above, for a total of 196 valid datasets, the response rate fell to 14.27%. Respondents were 58% male [N=110] and 42% female [N=80], with six respondents choosing not to disclose their gender.[3]

It is important to note that the Physical Fitness, Role Physical, Bodily Pain and Physical Component Summary scores will not be included as physical health falls outside this study's

[3] Totals may not equal 100 due to statistical rounding

scope. This leaves General Health, Vitality, Social Functioning, Role Emotional, Mental Health and Mental health Component Score scores. The mean Mental Component Summary score (MCS) was 34.28, and the median MCS score of 33.99 using the norm-based scoring scale. Using norm-based scoring, each scale has a mean of 50 and a standard deviation of 10 in the U.S. General Population. When a scale score is below 50, the health status of the respondent is below average. 75% of the current sample fell below 43.76, with a standard deviation of 12.63. This indicates that 75% of the sample has a mental health component score below the US general population average, indicating poor mental health. At their lowest scores, the mental health component summary concludes that the respondent may be suffering from "frequent psychological distress, substantial social and role disability due to emotional problems; health in general rated 'poor'" (Quality Metrics, 2021).

Two aggregate reports were generated via PROCoRE, one for all respondents and one for male v. female respondents. In the overall aggregate report [N=196], the t-score of 50 represents the general population's average mental health score. On average, respondents fell below this marker in every mental health category measured, indicating "worse health" than the general population. General health (physical and mental) had a mean score of 45.79, with 45% of respondents scoring below the societal norm. Vitality had a mean score of 40.21, with 69% of the sample scoring below the norm. 69% of the respondents scored below the societal average for social functioning and mental health, with mean scores of 37.96 and 38.57, respectively. Role emotional had a mean score of 37.63, with 66% of the respondents scoring below the average.

For the overall Mental Health Component (MCS) summary score, 78% of the respondents [N=196] scored below the general population norm, with 70% of respondents

meeting the criteria for first-stage depression screening. Participants are considered at risk for depression when they have an MCS score at or below 42, which can be used as a preliminary screener to identify participants at risk for depression. This screening is not a diagnostic measure; results are designed for the early identification of persons who may be at an increased risk for certain mental health conditions. Diagnostic tools are more comprehensive and may include many psychological tests and screening tools (American Psychological Association, 2021). (Figure 1.1)

The results vary slightly when analyzed by gender, with men scoring slightly worse than women. The mean MCS score for women was 34.53, while the men came in at 33.82 ($p=<0.001$). Women scored 75% below the societal average (MCS), with 67% meeting the criteria for first-stage depression screening. Men scored worse with 80% below the societal average (MCS) and 74% meeting the criteria for first-stage depression screening ($p=<0.001$). (Figure 1.2)

Figure 1.1

Aggregate report for all respondents[4]

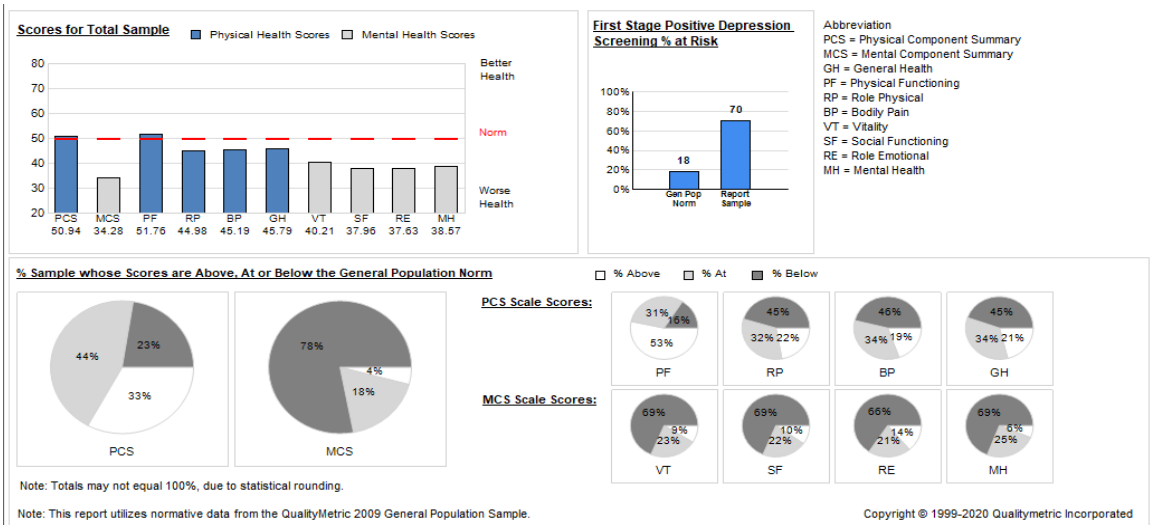

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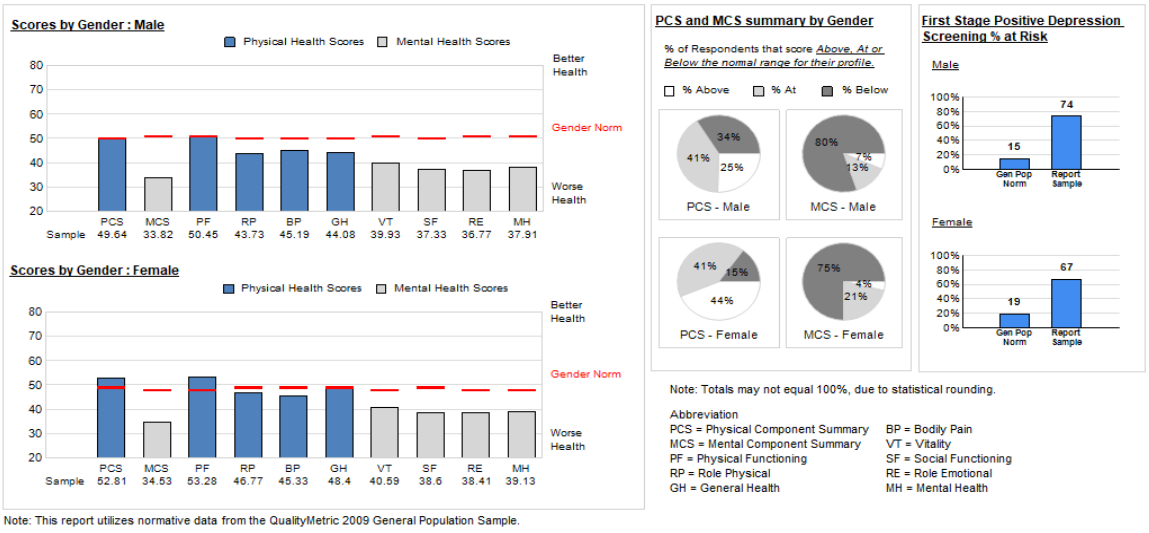
Figure 1.2

Aggregate report separated by gender (Male/Female)

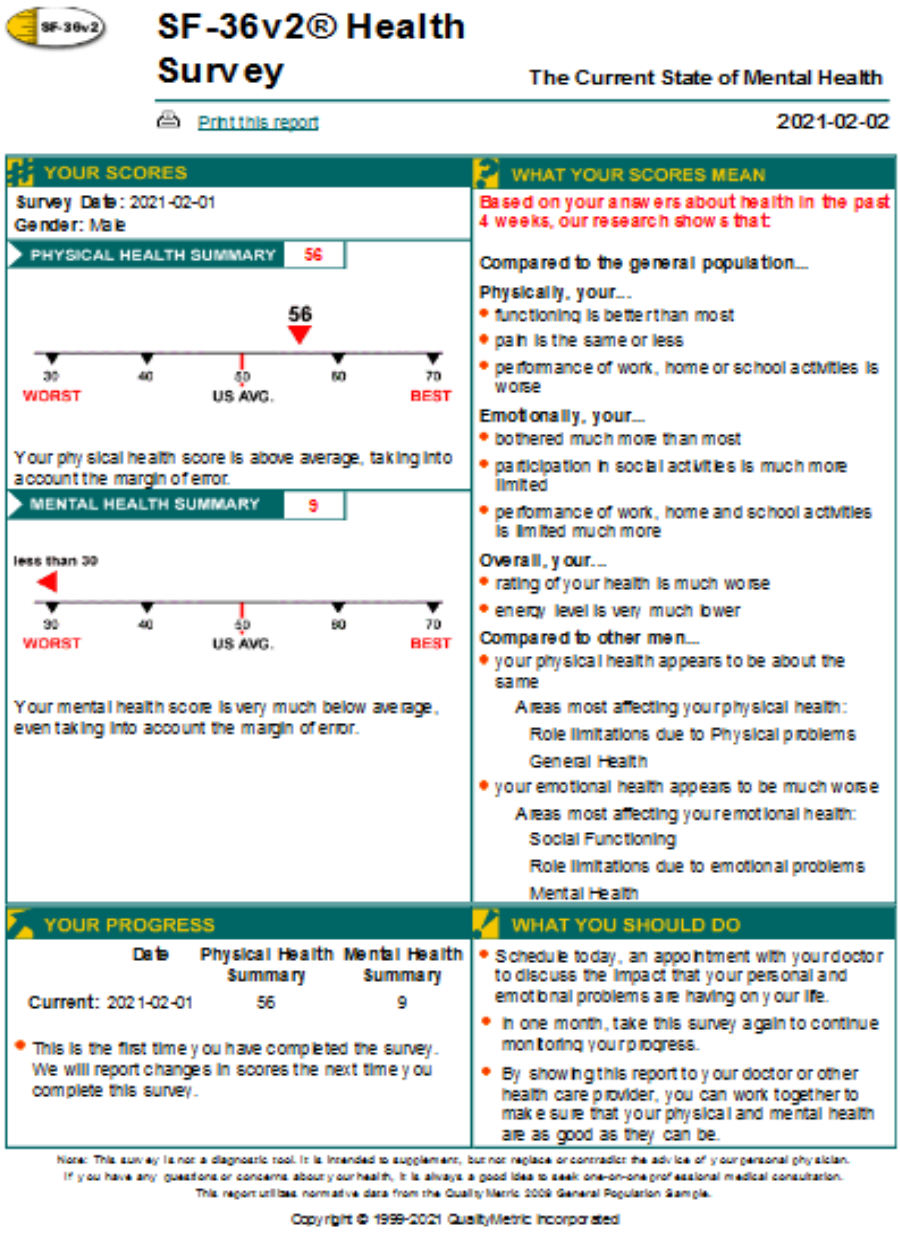


Note: This report utilizes normative data from the QualityMetric 2009 General Population Sample.

In addition to mental and physical health statistics and depression screening, the SF-36v2 provides each participant with a respondent report (Figure 2.0). Respondent reports provide their physical and mental health summary compared to the general population, compared to others, and a ‘what you should do’ section. Due to the amount of data, including each participant’s respondent report findings is impossible; however, a respondent report from each of the three types of recommendations will be highlighted. It should be noted that the mental health summary rates respondents as “well below,” “below,” and “same or better,” and 129 participants received a “well below” rating.

Figure 2.0

Sample respondent report[5]



SF-36v2® Health Survey

The Current State of Mental Health

Print this report

2021-02-02

YOUR SCORES

Survey Date: 2021-02-01
Gender: Male

PHYSICAL HEALTH SUMMARY 56

30 40 50 60 70
WORST US AVG. BEST

Your physical health score is above average, taking into account the margin of error.

MENTAL HEALTH SUMMARY 9

less than 30

30 40 50 60 70
WORST US AVG. BEST

Your mental health score is very much below average, even taking into account the margin of error.

WHAT YOUR SCORES MEAN

Based on your answers about health in the past 4 weeks, our research shows that:

Compared to the general population...

Physically, your...
- functioning is better than most
- pain is the same or less
- performance of work, home or school activities is worse

Emotionally, your...
- bothered much more than most
- participation in social activities is much more limited
- performance of work, home and school activities is limited much more

Overall, your...
- rating of your health is much worse
- energy level is very much lower

Compared to other men...
- your physical health appears to be about the same

Areas most affecting your physical health:
Role limitations due to Physical problems
General Health

- your emotional health appears to be much worse

Areas most affecting your emotional health:
Social Functioning
Role limitations due to emotional problems
Mental Health

YOUR PROGRESS

Date	Physical Health Summary	Mental Health Summary
Current: 2021-02-01	56	9

- This is the first time you have completed the survey. We will report changes in scores the next time you complete this survey.

WHAT YOU SHOULD DO
- Schedule today, an appointment with your doctor to discuss the impact that your personal and emotional problems are having on your life.
- In one month, take this survey again to continue monitoring your progress.
- By showing this report to your doctor or other health care provider, you can work together to make sure that your physical and mental health are as good as they can be.

Note: This survey is not a diagnostic tool. It is intended to supplement, but not replace or contradict the advice of your personal physician. If you have any questions or concerns about your health, it is always a good idea to seek one-on-one professional medical consultation. This report utilizes normative data from the QualityMetric 2009 General Population Sample.

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The highest MCS score recorded was 62, much higher than the U.S. average, even considering the margin of error, this score appears to be an outlier from the remainder of the participants. It should be noted that while outside of this study's scope, this respondents' PCS score was much worse than the U.S. average. The report outlines that emotionally the respondent is bothered less than most, their participation in social activities is less limited, as is their performance at work, home, and school. Overall, this respondents' health is much better, and their energy level much higher. The only recommendation for this respondent in the "what you should do" category is to retake the survey in 3 months to monitor their progress.

In stark contrast to the previous respondent, the lowest MCS recorded in the study was <5, much below average even after considering the margin of error. Emotionally, this participant is bothered much more than most, participation in social activities is much more limited, and their overall health rating is worse than the average. This participant's energy level is "very much lower" than the general population. The area's most affecting this participant's emotional health are vitality, social functioning, role limitations (due to emotional problems), and mental health. In the "what you should do" category, it is recommended that this participant seek medical intervention today to discuss the impact their mental health is having on their lives.

The mid-range respondent report came in at an MCS score of 44, 6 points less than the U.S. national average, accounting for the margin of error. Emotionally, this participant is bothered less than most, but their social activities and performance at work, home, and school are more limited than the general population. Overall, their energy level is lower, and their emotional health appears to be about the same compared to other participants of that gender. The

report recommends that this person discusses their emotional problems at their next scheduled visit to their doctor.

There are three recommendations that the report provides; to retake the survey in 3 months, to discuss with their doctor at their next scheduled appointment, and to seek medical intervention today. The majority of the respondents received the last two recommendations, with 69.89% (137 of 196) of participants receiving the more urgent recommendation to speak with a doctor today. Due to the recommendation from the SF-36v2 for respondents to speak with a doctor immediately based on their mental health component summary, these 137 people may be at risk of immediate harm to themselves or others, or they may need significant medical intervention. However, there is no way of knowing for sure inside the current study parameters.

The SF-36v2 scores were numbered to identify which mental health component score (MCS) was associated with each participant. The MCS scores were exported into Microsoft Excel with the remaining quantitative data, including age, years of service, gender of the prisoners, and security level of the institution. The mean MCS scores were then calculated for each demographic variable using the excel formula [=AVERAGE (fN: fN)]. The mean MCS for age was 33.3, 35.16, 33.86, 34.37, 33.14, and 33.7, as seen in Table 3.0. The mean MCS did not vary much for years of service, ranging between 32.26-37.14. Participants working with male prisoners had a mean MCS of 35.68, and participants working with both genders reported a score of 32.35. Notably, those working with strictly female prisoners had a significantly lower MCS at 29.82; however, the sample size was significantly smaller than the former. Participants working in the medium, maximum, and multiple security levels reported MCS of 33.45, 34.91, and 33.85, respectively. Participants working in minimum and supermax reported scores of 25 and 42.77;

however, the sample size was significantly smaller than the others, which may have skewed the average mental health scores.

Table 3.0

Demographic Mean Mental Health Component results

Variable	Mean Mental Health Component score % (n)
Age	
18-24	33.3 (8)
25-34	35.16 (59)
35-44	33.86 (55)
45-54	34.37 (50)
55-64	33.14 (21)
65+	33.7 (3)
Years of Service	
Less than 1 year	37.14 (9)
1-5 years	33.92 (85)
6-10 years	34.10 (31)
11-15 years	35.28 (30)
16-20 years	35.24 (8)
21-25 years	32.26 (21)

26+ years	35.89 (12)
Prisoner population gender	
Male prisoners	35.68 (128)
Female prisoners	29.82 (20)
Both genders	32.35 (48)
Security Level	
Minimum	25 (4)
Medium	33.45 (26)
Maximum	34.91 (88)
Super-Maximum	42.77 (2)
Multiple levels	33.85 (79)

The remaining quantitative data included participants' age, years of service, gender, the institution's security level, and gender of the prisoners housed in their institution. The participants' breakdown was as follows; eight participants between the ages of 18-24, 59 aged 25-34, 55 aged 35-44, 50 aged 45-54, 21 aged 55-64 and three 65 years and above. The majority of participants had between one and five years of service with BC Corrections at 85 participants, with the remainder being nine with less than one year, 31 with 6-10 years, 30 with 11-15 years, eight 16-20 years, 21 with 21-25 years and 12 participants with 12 or more years of service. One hundred twenty-eight of the participants worked solely with male prisoners and 20 solely with females. The remaining participants reported working with both male and female prisoners. 90%

of participants (%=P/N*100) worked in maximum security or a facility with multiple security levels. The remaining 10% reported working in minimum (4), medium (26), and supermax (2).

5.2 Current Resources Available to Correctional Officers

The final section of the study included open-ended qualitative questions, which were coded separately except for questions 27 and 28, which were coded together; therefore, the results are presented as such. Due to not all participants completing the qualitative portion of the study or skipping questions they did not wish to answer, the number of responses varies by question (Appendix B). Questions 19 and 20 were open-ended interview-style; and were designed to determine how many participants were aware of and had utilized the mental health resources available to them. 91% of participants were aware of some mental health resources available to them through their employer. The most common answers were the Employee and Family Assistance Program (EFAP) and the Critical Incident Response Team (CIRT). Although most participants were aware of the resources, 55%[6] reported they had never used any resource.

Participant 101 stated they had not used any of the resources available to them because they "do not trust the leadership not to use it against me [them]," and participant 110 stated they attempted to get assistance but "found it too difficult and waits for resources were too long." While very few participants (N=5) reported why they had not utilized a resource, the only repeating and subsequent theme emerged: resources were too impersonal and too challenging to use. Participant 123 tried to use the resources and gave up because it was "hard to use them."

[6] Percentages may exceed 100% due to statistical rounding.

Participant 146 identified the difficulties of counselling over the phone, stating, "is hard to speak to someone u [you] don't see."

The most utilized resources by respondents were CIRT and EFAP, which were used by 51% and 63% of question respondents (78), respectively, with many respondents utilizing both resources. The remaining respondents reported using other services, including outside counselling and chaplains/religious leaders—question 22 asked respondents if they felt the resource they utilized was helpful to them. Most respondents did not specify which of the resources they utilized, only specifying if they found a resource helpful or not. However, most respondents who specified the CIRT resource found it helpful (14.54%) because it occurred directly after an incident with someone they trusted who understood the demands of their job. A small portion of respondents (3.63%) did not find CIRT helpful for various reasons, including that CIRT relies on "people's personal qualifications" with "no follow-up," (Participant 21) and they "don't feel that [they] gained or learned any new skill or knowledge to help deal with the stress" (Participant 21). Many respondents did not find EFAP useful, with 31.81% of respondents stating they did not like the resource for various reasons, including being "underqualified to deal with [my] problems (Participant 30) and "wasting time explaining [our] jobs to the counsellor, so they have a clue what [we] are talking about" (Participant 33). Participant 85 stated they did not find EFAP helpful because the counsellor “didn’t understand the nature of our business". A further 6.36% of respondents simply answered "yes" the resources were helpful, 14.54% stated "no." The remaining respondents answered "N/A" or were not sure if the resources were generally helpful or not.

The themes that arose in question 22 were that there are not enough sessions with EFAP to make an impact and that the counsellors are unfamiliar with the job. Therefore, they are unable to provide any assistance. Many respondents requested the use of counsellors who have experience working with first responders or in correctional facilities. The respondents who found the resources helpful overall reported that the most crucial aspect of CIRT was that the person they were speaking with was familiar with the job of a correctional officer.

Question 23 was designed to determine how much training employees received regarding their mental health instead of dealing with prisoners' mental health. Out of the 196 respondents, 180 answered question 23, with only 25% of those reporting they had received training or information regarding their mental health. The remaining 75% were divided into no training at all (59%) and some or minimal information (15.5%). Some examples of training received by respondents are "a short in-house training program called stress busters over 10 years ago" (Participant 69), and participant 106, who reported the training as "Very minimal. Basically, you get told your mental health is important and that CIRT and EFAP are there if you need them". Participant 179 identified the disconnect between the minimal training received and the job, stating, "Very little and the training that was given doesn't feel like a very accurate representation of corrections." Notably, four participants mentioned that Dr. Gilmartin's "Emotional survival for law enforcement" seminar was the most impactful training they had ever received.

Question 24 asked whether employees had ever paid out of pocket to receive mental health treatment or counselling because it was outside the scope of their benefits or needs. Out of 181 respondents, 38% had used mental health resources outside of their employer benefits. The only two themes that arose were utilizing outside counsellors due to a WorkSafe claim (WCB)

and respondents that had not used outside resources due to them being unattainable financially or for other reasons.

Question 26 is the final "straightforward" qualitative question included in the study and was intended to determine the instances of formal debriefing following incidents in an institution. 34% of respondents stated that "yes" their workplaces provide formal debriefings after all or most incidents. 42% of respondents stated that it is very hit or miss whether their workplace provides a formal debrief and that it is typically a "game-time" decision by the supervisors or management on shift at the time. The remaining 21% stated that no, their facilities do not provide formal debriefs after incidents. Participant 9 stated that "It seems like the management that is on shift at that moment decides if a formal debriefing is needed and they have it immediately following the incident." This statement also points out the issues with debriefing in the psychological community, mainly, providing debriefings immediately following an incident (McFarlane, 2003).

Question 25 asked respondents what they thought their workplace defined as a 'traumatic incident' that would require a debriefing. The answers were winnowed into four themes: mortality, extreme violence, emotional trauma, and abandonment. Included in mortality were repeating ideas that included mentions of death, suicide, and assaults. Self-harm was not included in this theme due to comments from respondents such as: "A significant one (like a hanging that may or may not have resulted in death), not a minor attempt like cutting wrists in more of an attention-seeking or release-type fashion" (Participant 9). Answers such as this highlight the violence that officers witness all too often in that many do not consider minor acts of self-harm to be traumatizing.

Extreme violence included repeating ideas of any code response, staff assaults, a mutual fight, an assault, and riots. Code responses include any urgent situation within the facility that requires an emergency officer response. This includes code yellows, blues, and reds, including fights, assaults, riots, "sit-ins," general officer needs assistance, medical emergency, self-harm, escape, and prison breach. Some responses that prompted the theme were "A code yellow" (Participant 16). "Any code" (Participant 35), "Any code yellow, theoretically" (Participant 48), "Usually codes" (Participant 55). Code responses were only grouped into this category if they did not specify an event such as an assault or a medical emergency. Staff assaults included physical and verbal assaults such as threats. Emotional trauma included incidents of overdose, self-harm and any mention of an event that affects an officer mentally or emotionally or is outside of their daily duties (such as fights, assaults, overdoses…). Self-harm was included in this theme and not mortality due to the respondents specifying most acts of self-harm (except for a hanging) as a separate event from suicide or suicide attempts.

The final theme that emerged in this question was that of abandonment. There is only one repeating idea in this theme; however, it was so prevalent that it required identification. This theme did not arise in the context of this question; however, it emerged as an addition to respondents' answers such as "...however most supervisors/managers will ask staff if they need help as a CYA [cover your ass]" (Participant 39).

While this theme was not technically relevant to the question posed, the prevalence of comments regarding feelings of abandonment were rampant, and it was apparent these feelings were fundamental to respondents. Participant 89 stated, "They [management] do not care about staff assaults minor or major"; participant 103 felt that staff are offered CIRT so that

"management can tick that off their checklist" in the event of a traumatic incident such as a staff assault. Other mentions of abandonment include "A debrief when management considers it significant" (Participant 9), "Repeated harassment by officers toward other officers" (Participant 21), "Not being supported by management in my work" (Participant 52), "Management not backing officers up" (Participant 88), and "They do not care about staff assaults, major or minor" (Participant 89).

All these themes fit into the modern organizational theory framework in that all of these situations are dynamic, and staff are required to be adaptive to the changing environment (Hatch & Cunliffe, 2006). The theory that the organization is an open environment related to change and adaptability fits the above themes. Staff are required to continuously adapt and change to the events and incidents occurring in real time. Riots as a repeating idea were somewhat challenging to code, as they fit better into the neo-classical organizational theory due to the timeliness of management intervention (Scott, 1961). The extreme violence theme falls under modern organizational theory with neoclassical theory as an interrelated and layered theory. These ideas fit into modern organizational theory better than neo-classical organizational theory because, technically, management intervenes in every situation inside the institution; however, theoretical determination stemmed from the point during which management intervenes. In a riot situation, management takes control of the situation, and responding officers are no longer the first line of defence, hence the interrelated neoclassical organization.

Questions 27 and 28 were designed in part to identify the types of incidents that officers had been involved in where they did not receive a debriefing and partly to provide officers with a space to speak about traumatic experiences they have had in their careers. The results of these

two questions were staggering, which required steps to protect the mental well-being of the researcher while coding this section. In addition to theoretical framework and themes, direct quotes will be heavily utilized in this section to demonstrate the trauma the respondents have experienced while working for BC Corrections.

The themes identified were extreme violence, abandonment, and repression. Extreme violence included verbal threats, witnessing violence/medical emergencies, hostage-taking/riots, suicide/self-harm, and death. Theoretical frameworks were the same as previous questions in that all were modern organizational theory except riots, and in this case, hostage-taking. In all other emergency scenarios, front-line officers are the first to adapt and respond to the environment, regardless of what it holds for them; management does not get involved until the latter stages. In instances of riots or hostage-takings, the management immediately controls the situation, sometimes to the detriment of staff well-being. One responded stated, "One group took another hostage in a room … I felt totally helpless as the management would not let us go in… I was worried sick about what they were doing to that one kid"[7] (Participant 130). While the neoclassical framework is what one might expect in a hostage situation, the effect on the psyche of those not directly involved is often overlooked.

By far, the most prominent theme in these two questions was abandonment, with repeating ideas of feeling unsupported by management and staff, poor communication, officer blaming and bullying/harassment. In this context, abandonment is based upon front-line staff and management interactions after or during an incident, which places it nicely in the neoclassical organizational theory. Some reports of abandonment within these questions were "I took a

[7] Identifying features have been removed

couple days off, it would have meant A LOT to me if management reached out to me to see how I was doing" (Participant 8), "Blame of officers when too busy" (Participant 17), regarding a staff suicide, one Officer reported "Management seemed to want to keep it quiet, this affected multiple staff, including myself" (Participant 35), another said "Could have been avoided if management allowed us to do our jobs or took the time to be properly concerned for our safety and wellbeing" (Participant 49), participant 83 said "You were expected to show up for your next shift and continue working, always", and Participant 103 stated that "It's rare that someone even asks if you are okay. " The organization is formed by the social interactions between workers (front-line staff and management), and it is those interactions that significantly affect the structure of an environment. The neoclassical theory posits that communication is the best indicator of information transmission within an organization. This cannot happen without a teamwork and behavioural approach (Scott, 1961).

Approximately 50% of the relevant text selected had repeating ideas within the abandonment theme. Some examples of these from the officers are, "I tried to bring forward about an inmate, but nothing was done. Because [they] think inmates always deserve yet another chance, and despite my report on this inmate [stating he was violent] ... the inmate was placed with no handling protocol and assaulted two staff members" (Participant 4). After witnessing a severe act of self-harm, another officer reported, "I was not offered any help and was told to continue with my duties"[8] (Participant 94). Another officer reported feeling as if they were not important after witnessing a traumatic event, stating, "An inmate chewed a hole in [their] hand…

[8] Identifying features have been removed

lost 5 pints of blood. Nobody approached me to ask if I was ok … I was not important"[9] (Participant 144).

Another repeating idea within this theme was communication, or lack of communication, usually from management. Many officers reported a culture of rumours and speculation due to a lack of information about incidents. Many also report staff members' disappearing' without explanation, whether for a short time or permanently. Some of those stories were as follows, "people just disappeared...I have no idea why." (Participant 22) and

We hear rumours, but I don't know if I can talk to those friends again or not. I hear staff say disparaging things in whispers about people who I thought were my friends and I don't know what is true and what isn't. It makes me sad at work and it's hard to know who to trust. It is destabilizing to have people here one day and gone the next (Participant 22).

Others reported things such as "More details and updates to staff need to be implemented to stop staff from gossip and change to truth" (Participant 52).

Many officers reported a lack of communication regarding staff and incidents if a debriefing took place after an incident. These answers ranged from no debriefing or communication at all, an email about the incident, or a debriefing where not all officers were informed or able to attend. One officer whom a prisoner assaulted was not included in the incident debrief because they had to be taken to the hospital for their injuries. The management team debriefed the staff without them as they were off-grounds but did not hold a second debriefing to include the assaulted officer. Two others reported, "Not all staff are attending when debriefs happen, should be that all staff are made aware by supervisors" (Participant 56) and "I

[9] Identifying features have been removed

remember a very casual invite to everyone by word of mouth (not via email) to meet in an area to discuss it. I wish there was an email to all staff stating if you wish to, meet in such and such place" (Participant 69).

Other officers spoke about the fact that they had never received a formal debriefing, no matter the severity of the incident; one officer wrote, "I have never received a formal debrief, even after experiencing a death in custody" (Participant 50). Another officer had taken part in a debrief, which they found helpful, but was worried about the consequences of speaking up due to the organizational culture at the centre, stating, "I found the one debrief I done in my career was beneficial for just being able to talk things out. Unfortunately, you are worried that management will use some of the information against you in any further investigation" (Participant 59). While some officers never received information of any kind, other officers felt that they (or their peers) were blamed for the traumatic incidents that occurred, stating, "I find it unacceptable that my direct colleagues have been blamed for inmate deaths when we are not given the tools nor the support, we require to do our jobs properly" (Participant 45). Respondents appear to feel completely abandoned by their workplace and feel they do not have the training or tools to complete their jobs effectively.

While the abandonment theme casts a shadow on the management teams within BC Corrections, respondents also highlighted a culture of bullying and harassment by their peers and management alike. Some respondents told stories of this culture by saying, "staff culture and management targeting/bullying was more of a problem for me to cope with than incidents" (Participant 40). "Lack of cohesion among staff and relational aggression built into the culture was more insidious." Two officers said they felt they were targeted by supervisors, stating, "The

supervisor looking like he wanted to fight me in [the centre]"[10] (Participant 83) and "Supervisor being aggressive towards me, which I couldn't get any help because they are on the CIRT team"[11] (Participant 87). These officers highlight that the management team is not the only issue within BC Corrections, that the classical/traditional organizational culture in and of itself is the problem.

The final theme in these questions is repression. Repression included any reference to 'old school mentality', 'shoving it down' or flimsy reasons why a debriefing may not happen, such as, "sometimes there just isn't time in the shift." Debriefing here refers to giving the staff involved an opportunity to speak openly about an incident, share ideas and feelings, and seek resources. This belief that debriefs can only happen during a specific scheduled shift or that it is not reasonable to provide opportunities for debriefing highlights that formal debriefs has not been taken seriously. Other officers were not sure if starting to debrief at this point in their careers would even help, saying, "At this point, I am use[d] to dealing with things on my own so I don't even know if a debrief would help" (Participant 99). In contrast, others can see the benefits of debriefing, but understand they are not used enough by officers, "I think it's healthy to sit and talk with others who went through the incident. Instead, we just bottle it up" (Participant 48). This old-school mentality is reminiscent of the classical/traditional organizational theory that most correctional centres are still based upon.

The final and arguably one of the most critical questions allowed the respondents to ask for any type of mental health resource they think may help or would encourage officers to utilize these services more. Again, the responses were overwhelming, well-thought-out, and very

[10] Identifying features have been removed
[11] Identifying features have been removed

telling. Three themes emerged from the relevant data: benefits, access to on-site resources and team-focused goals. Repeating ideas in the benefits' theme were added benefits/coverage, mental health days, practitioners familiar with the job, and off-site resources. The most common benefit was to have higher coverage for psychiatrists, counsellors, and psychologists (as well as other health professionals), as the current collective agreement covers $500 a year for the members (BCGEU, 2020), which can cover between two and four sessions per year depending on the cost of a specific counsellor. Many officers wished to have a few specific mental health days added into their sick time, days in which they could give the reason "I am taking a mental health day" with no questions asked by the employer unless employees went above and beyond their allotted days. Officers also spoke about the EFAP program currently in place. They stated that the counsellors employed by these companies are not familiar with the job of a correctional officer and the unique traumas and duties that come with the job. This leads to officers either not going back or not getting proper help or spending a significant amount of time in their allotted sessions explaining what the jobs entail. The benefits theme falls into the modern organizational theory in that it considers multiple variables at the same time, showing that cause and effect are not simple occurrences; benefits must be significant and all-encompassing to increase the chances there is something within that will aid in the mental health treatment of each officer.

Access to on-site resources was a surprising emergence, as the "old-school" culture many officers claim to be stuck in would likely not suggest the development of on-site psychologists or counsellors at the workplace available to all staff. Many officers suggested that having mandatory psychological evaluations or check-ins for all officers, management included, would benefit the workplace within this theme. Some suggested these evaluations be as often as every

six months, while others suggested they be completed after a severe incident before returning to their regular duties. Officers stated that having mandatory check-ins with a mental health professional would reduce the stigma around post-traumatic stress injuries and seek a professional's help because all officers would be required to complete them, thus removing the stigma of being the 'only one.'

The final theme that emerged was team-focused goals, and this included training and team building/communication with staff and management. Officers wanted more training regarding mental health and other aspects of their everyday duties to feel empowered in their jobs. Officers also reported wanting more team-building activities among staff (including management) that occur off-site and not during working hours. Officers reported that if they felt more connected to their peers and management as people rather than officers or co-workers, it would improve the organizational culture and the bullying/harassment. Officers felt that team building would aid in making officers a solidified team that can work together instead of the "white-shirts v. blue shirts" mentality that currently exists.

Access to on-site resources and team-focused goals fall into the neo-classical organizational theory because of the themes' social aspects. The neoclassical theory posits that an organization is built upon the social interactions within it - so removing the stigma around getting mental health help by mandating all officers to participate and hosting team-building activities is based on improving the social interactions within the organization.

5.3 Traumatic and Critical Events[12]

This chapter is reserved to tell the stories of the officers that opened up to share in the qualitative portion of the survey without being surrounded by data and theory. Their stories have been deliberately placed just before the discussion to frame the remainder of this writing and keep the officers who have so bravely told their stories at the forefront of this project. Any identifying features of the respondent, prisoners, or which facility the story came from have been removed to protect the respondents' identity; respondent numbers are included for identification. These are their stories.

Participant 11 - "Inmate assault. 3 on 1. My first month on the job. I can still smell the hot butter/candy that the inmate had thrown at [their] face before all of the inmates attacked [them]. One of the inmates stood on my desk and jumped on the inmate. It is as vivid as the day it happened."

Participant 32 - "Serious slashing, serious assault in which the inmate was bleeding so profusely from [their] nose you could hear the blood hitting the floor."

Participant 35 - "A coworker committed suicide. It was not spoken about or addressed. Management seemed to want to keep it quiet."

Participant 48 - "I had feces thrown on/at me and several other staff."

[12] All direct quotes with identifying features of participants, prisoners or institutions have been changed to gender neutral and non-identifying language to protect the participants. No other parts of participants' words have been modified.

Participant 74 - "Suicide attempt by slashing are [arm] from wrist to elbow, then inmate was released at court and successfully killed [themselves] days later… staff seriously assaulted resulting in [them] never returning (more than once)."

Participant 83 - "[20+] years of seeing inmates killed, kill themself, incredible violence and trauma."

Participant 97 - "I have cumulative PTSD from [20+] years of incidents that I don't have time to list. 2 months into my career my partner was brutally assaulted and my PMT [personal alarm] failed so I had to leave him to use the phone" … "I spent the next [20+] years seeking out violence to prove myself and I found it. I was in many incidents that continued to build on my PTSD. I've seen an inmate jump from the [tier] and split open [their] skull and I could see [their] brains. I've seen an inmate stabbed over 30 times and I ended up with a lot of blood on my uniform and all I did was shower and go back to work...."

Participant 115 - "Death of an inmate whom I was responsible for taking care of up until body removal."

Participant 123 - "An inmate came out of [their] cell with [their] neck cut and blood gushing out" Participant 123 also said, "I came on shift and there was a deceased inmate on the floor covered. I had to walk around [them] doing checks for several hours before the coroner took [them] away."

Participant 136 - "There was an incident that inmates were refusing to lock up in a unit of 54 inmates. It could have easily escalated into a riot situation and I was up on the 3rd tier."

Participant 138 - "Working in control and an inmate used a razor to cut himself up in segregation."

Participant 153 - "I was targeted by a number of gang members who were planning on tracking or following me home from work" Participant 153 also stated, "I also discovered that they had orchestrated multiple drive by shootings during the time of the investigation" and "I spent the better part of two months looking over my car every shift end, hypervigilantly looking for people following me home and wondering well [while] I was at work if my wife and children were safe at home."

Participant 8 - "I was attacked at my 6 month mark and I know that I was not debriefed on what went wrong and what went right… still to today I don't know how my incident could have been better."

Participant 62 - "Working as a control officer and witnessing a fellow staff member being assaulted."

Participant 70 - "I could write a book. Maybe I wouldn't be so mentally destroyed if there was [debriefings]."

Participant 68 - "I was involved in an assault in segregation where multiple staff were assaulted by an inmate. I was also assaulted in segregation when an inmate threw a boiling hot meal in my face. "

Participant 78 - "I was falsely accused of sexual assault by an inmate who proceeded to submit complaints against me to multiple agencies."

Participant 96 - "Staff assault I was direct witness to and fought with I/M [inmate] to protect my fellow staff member."

Participant 97 - "Watching a fentanyl overdose."

Participant 135 - "Several attempted assaults on myself."

Participant 146 - "Suicide (cutting) attempt on my first ever night shift ACS shift [acting correctional supervisor]."

Participant 131 - "My coworker was escorting an inmate to a disciplinary hearing. I was at home, on the phone so that I could participate in the hearing...My coworker got brutally assaulted by the inmate before [they] had the chance to put cuffs on, and I heard my coworker screaming since I was on speakerphone. I had nightmares for several months after that…"

Many of these stories are graphic and involve immense violence and trauma while being viewed as “normal” events in a correctional setting that would be anything but ordinary and highly distressing to the average person. Events such as these are traumatic and should be addressed for the well-being of the organization and the officers working within it.

Chapter VI: Discussion

6.1 Data Interpretation

The data collected shows a definite relationship between correctional officers' mental health state, the organizational culture, and the resources available to officers. This study's officers scored significantly lower than the general population concerning their mental health and well-being, supporting the first hypothesis in this project. The study concluded that 70% of respondents meet the criteria for first-stage depression screening, a staggering 52% higher than the U.S. general population ($p=<0.001$). The data did not support the second hypothesis, which has led the researcher to believe the organization itself may be the problem instead of the incidents experienced at prisoners' hands. Initially, it was hypothesized that the stresses arose

from the fights, assaults, and other unpredictable violence that officers witnessed while doing their jobs. While this appears to be true to an extent, it does not seem to be the leading cause of the stresses endured by the officers. This has led to the idea that the organization itself – the culture, management, physical environment, or a combination may be the culprit, but this remains to be seen. The third hypothesis that fewer officers will have utilized the resources available was somewhat neutral in finding.

While more officers used the resources than not, most officers who utilized these resources did not find them helpful for various reasons. The final hypothesis showed that most respondents had experienced a critical or traumatic event for which they did not receive a formal debriefing by BC Corrections. An overwhelming majority of the study respondents reported feeling abandoned or left behind by BC Corrections and the institutions' management. While the present study is not sufficient to determine a direct correlation between the MCS and organizational culture, it is reasonable to identify a relationship between the extremely low mental health component scores and the workplace. Overall, the current state of mental health for correctional officers in British Columbia is deplorable compared to the general population, and the resources provided are wholly insufficient.

The study's findings support the research question's expectations and three of the four hypotheses and provided insight into the project's overall goal. These officers' mental health scores support the framework that the current institution is based on the classical/traditional organizational theory, focusing only on the organization itself, not on the people who keep the organization running on a day-to-day basis. The classical/traditional organization's hierarchical structure encourages silence by the employees and a culture of accepted silence by management.

Classical organizations are often motivated by politics and public perception, which have significantly impacted the policies and procedures inside correctional facilities in British Columbia.

In the researcher's interpretation of the data, the results support a recommendation to transform from a classical organization to a culture of neoclassical and modern organizational theories, implemented concurrently. This transition can be done without spending large amounts of money, changing the physical environment, or changing the employees. It is the opinion of the researcher that the organization simply needs to adopt a culture of caring for their employees first and then satisfying political and public needs. While this may prove difficult in a correctional setting where politics and budget are driving factors behind policies, there is no need to overhaul the correctional facility's physical entity - just the facility's culture. Neoclassical organizational theory is achievable with minor changes to the organizational culture and management - to put it simply - do not abandon the people who keep the organization safe and running.

A few respondents stated that there are sufficient officers' resources and always received a debriefing or have never experienced a traumatic incident; these respondents may not have been as exposed to the resources or traumatic events or found the available resources sufficient. This study cannot determine cause-and-effect, and therefore that possibility cannot be definitively ruled out. The relationship between the mental health component scores and the overwhelming report of abandonment is strong enough to uncover that the management styles, organization, and debriefing methods may be creating adverse effects on officer mental health. The literature has shown that debriefing is highly controversial and may or may not be effective

in lessening the prevalence of long-term psychological symptoms, and that there is a need for extended psychological interventions.

The reports of abandonment by the management and the organization were unexpected. The issues surrounding management were not included as a hypothesis as the issues were not expected to be nearly as prevalent as this study has shown. The abandonment theme's significance is imperative because it speaks to classical organizational theory's ineffectiveness of only caring about the organization and not about the people working in that organization (Scott, 1961) and how correctional centres are managed in British Columbia.

6.2 Available Resources

Currently, correctional officers in British Columbia are enrolled in the 'British Columbia General Employees Union [BCGEU]' along with thousands of other provincial government employees. The 18th collective agreement, effective from April 2019 to March 2022, provides employees with a small number of mental well-being resources. Officers are provided with 11 sick days per year, which may be utilized on no more than 5 "occasions" (i.e., call in sick on Monday and Tuesday would equal two sick days, one occasion, but calling in sick Monday and Thursday would equal two sick days, two occasions) (BCGEU, 2019). Officers are also entitled to 70 hours per year of "special leave," ranging from moving days to days off to attend court or a funeral. There are no specified mental health days in the agreement (BCGEU, 2019). There are other allowances as well; however, they are not relevant to the present study.

Employees receive basic medical insurance, an extended health care plan, and a dental plan (these are optional, and employees may opt out). The extended health plan currently covers

up to $500.00 a year for psychologists or psychiatrists. Officers are also entitled to the use of the Employee and Family Assistance Program (EFAP), which is funded by the employer (BCGEU, 2019). Employees are entitled to six sessions with an EFAP counsellor, which may be extended at the counsellor's request.

Each correctional facility in British Columbia is also equipped with a critical incident response team (CIRT) made up of officers who have taken part in a two-day training program. CIRT members are not required to be mental-health first aid certified or specially trained in formal debriefing after a critical incident. CIRT is intended to be offered to every officer involved in an incident in the correctional facility.

The final resource for officers is their peers. Those officers with whom they experience the correctional environment and often spend more time than their own families. While not an official resource, being able to speak about incidents and the correctional facility is a critical aspect of mental wellness for employees bound by The Freedom of Information and Protection of Privacy Act (FOIPPA, 2021) surrounding the information of their daily work.

6.3 Study Limitations

This study's limitations are that open-ended questions can be challenging to process and analyze, and surveys can limit answer options. Correctional officers (as with many forms of law enforcement) can be quite hesitant to participate in studies or questionnaires, and a higher response rate would have led to a higher rate of usable data, ensuring the study will stand up to validity and reliability tests. Another limit to this approach is the inability to determine cause-

and-effect reasonings for the data and only enabling the identification of relationships between the hypothesis and the data collected.

A limitation before the completion of this study, as mentioned above, is the severe lack of Canadian research. Most studies, statistics, and employees surveyed are from the United States and correctional Service Canada, which only covers Federal employees. In addition to this, the SF-36v2 compares the respondents' mental health component scores to that of the U.S. general population instead of Canada's population, which lessens the transferability of the results[13]. The United States correctional system is the most similar to Canada's. However, there are significant differences, including training, the population of prisoners, capacity, and financial status (World Prison Brief, 2019). The current study utilized the OPTUM SF-36v2 survey for an overall picture of Officer mental health. However, for future studies, a survey such as the PCL-5 should be used to gain a clearer picture of PTSD specific issues among correctional officers. In future studies, the use of a second reviewer, and a qualitative analysis program will be used to further eliminate personal bias. Most literature review resources only include employees from a few centres, from the same or neighbouring states. The same is true for this study as it was only conducted in British Columbia.

6.4 Knowledge Mobilization

This research is meant to be added to and compared with the small portion of existing literature. The aim is to identify critical areas that affect officer mental health and identify mental health resources specific to these areas. The leading target group will be front-line staff, defined

[13] Quality Metrics was contacted regarding Canadian normative data, of which they do not currently have available.

as the correctional officers who work directly with prisoners daily or near-daily. Ideally, the conclusions found in this research will contribute to the mental health treatments available to employees and workplaces, including policy regarding critical incidents, everyday occurrences, and resources.

The research hopes to begin the knowledge mobilization necessary for resources and policies to be put in place to support a healthy work/life balance and mental health resources for correctional officers. This topic has been so overlooked in Canadian research that one study simply is not enough to fully mobilize the knowledge necessary for real change as there will not yet be enough knowledge. The study aims to make preliminary recommendations that will be of little cost to employers, enable researchers to continue down this path, and conduct more in-depth studies on this topic.

Abma et al. (2017) speaks about how knowledge cannot be mobilized by researchers alone. They need stakeholders, front-line workers, the public and other agencies to work together collectively to be successful. This is the hope as research continues to gain input from policymakers, and the governments that run the provincial institutions. Front-line staff and employees, health care workers and academics will be able to implement real-life solutions in institutions, not merely make recommendations that sit at the end of a thesis discussion for a decade.

The strategy for knowledge mobilization is currently talking to as many members of management teams within BC Corrections as possible, the British Columbia General Employees Union, in particular those involved in collective agreement bargaining, Occupational Health and Safety (including the Joint Occupational Health and Safety committees within BC Corrections),

and WorksafeBC about the research and plans. Two main things that have stood out are cost and trust. Governments do not want to pay for highly costly programs for their staff when they may already have programs of some kind in place. The second thing is to utilize the tools, recommendations and resources made available to the employer. As Abma et al. (2017) speaks about, these two challenges can be mitigated over time by mobilizing the knowledge.

Political outreach and lobbying local MLAs and politicians will be used to mobilize knowledge throughout the research and aim to one day be used to argue for and against legislation that affects correctional officers.

Chapter VII: Conclusion

7.1 Overview

Overall, the data collected and subsequently presented in this study aligns with the existing literature on correctional officers' and first responders' mental health in the United States and aligns with Ricciardelli et al.'s (2020) study out of Ontario. The data supported three of the original hypotheses, and the unexpected findings proved to be highly important and relevant to the theoretical framework of this project. This project's findings highlight the importance of organizational culture, employee treatment, and effective communication between levels in a hierarchy.

While the culture of the correctional centre has improved over the last few years, much stigma and hesitation still exist. Officers are slowly becoming more open about their mental health. However, the gap still exists, and while the talk has improved between staff members, the

talk and availability of resources have not improved for the employees. The recommendation from this research intends to put the onus back onto the employer to take care of their employee's mental health and their leadership role in organizational culture (Ricciardelli et al. 2018; Smith et al. 2019).

The overall state of mental health for the correctional officers in this study is abysmal. Most officers have been exposed to severe traumatic incidents with little to no support or resources; most have been exposed many times. Many of the officers who sought the help of available resources found them to be underwhelming and inaccessible, which resulted in many officers giving up on their pursuit of increased mental wellbeing. These stories and these forgotten officers are the framework and inspiration for this research; these are the people who protect society from their worst nightmares, taking on the trauma and violence, so members of the public do not have to.

The recommendations will enable employees to take charge of their mental health by having appropriate resources and simultaneously placing the responsibility for change implementation upon the employer. The recommendations were developed based on the data collected, the experiences, and the stories of the officers who trusted the research team to listen to their stories and present them as written, without judgement, political correctness, or censorship.

7.2 Recommendations

The data presented in this study sheds light on the struggles that correctional officers in British Columbia face daily. If conditions continue without intervention, the number of officers

who die by suicide, and those who leave work with stress injuries to never return, will only continue to grow. After reviewing the data, policies in the Correctional Act Regulation, Adult Custody Policy, the Corrections and Conditional Release Act, and collective agreement for correctional officers in British Columbia, the results of this study gave way to several recommendations for the Government of British Columbia.

First and foremost, the management style and organizational culture inside the institutions must change. To do this, the organization must accept responsibility for their employees' mental health and wellbeing and understand that the onus is to educate and advocate for their staff. This is a monumental task, and it will not change overnight. Changing the entire culture of an organization that has remained essentially unchanged for centuries is no easy feat. The first step is to bridge the divide between front-line correctional officers and their management teams.

As mentioned by many respondents, two easy and cost-efficient ways to accomplish this are increasing honest and open communication from the top-down, providing as much information to employees as possible. Front-line officers and management teams are all bound by the same confidentiality agreements, and short of divulging an employee's medical file or details of an ongoing investigation, there is no reason that communication cannot be open and fluid. The second way to change organizational culture is by providing paid off-site team building that includes both management and front-line staff. The justification for paying employees for these activities is to ensure they are mandatory. Officers must attend and participate; otherwise, officers who feel abandoned and left behind likely will opt out if that is an option.

The second recommendation is to reduce the stigma of mental health in the workplace. Honest communication and open-minded training sessions about officer mental health, post-traumatic stress disorder, stress injuries, and other mental wellness aspects are essential to lessening the stigma. Posting copies of the mental-health continuum model (Mental health Commission of Canada, 2017), (Appendix C) EFAP phone numbers, CIRT team members, and numbers to help-lines wherever officers frequent is also recommended. These places include the break room, the lunchroom (if separate from the break room), employee washrooms, and change rooms.

The third and final recommendation for BC Corrections is to implement mandatory psychological counselling or check-ins at least once a year for all staff members - including management. The need for ongoing psychological monitoring is highlighted in McFarlane's (2003) article on psychological debriefing, with monitoring recommendations up to a year after a traumatic event. With repeated traumatic events experienced in the correctional centre, ongoing yearly psychological check-ins can be beneficial in the early intervention of psychological disorders (McFarlane, 2003).

These check-ins would be done by a professional psychologist, preferably one familiar with first responders. The meetings would be completely confidential from the employer unless there is a risk of immediate harm. These check-ins' goal is not to provide information about an employee's mental wellbeing to the employer but to provide employees insight into their mental health and wellbeing and direction to appropriate and individualized resources.

This recommendation is also present in Ricciardelli et al. (2020) study for correctional officers in Ontario, highlighting the importance for all correctional staff. This is a large and

expensive recommendation that would not be implemented overnight. However, it could save BC Corrections money in the long run if staff can identify declines in their mental wellbeing long before it becomes a stress injury.

These recommendations are bold, and some are costly, but the state of correctional officer mental health in British Columbia warrants nothing less. When most of the workforce presents with severe mental health complications, if significant changes are not made, many of the respondents in this study will soon be lost forever, whether that be mentally or physically.

7.3 Continuing Research Gaps

In Canada, there have been very few academic studies on the modern-day correctional officer. Officers experience high hypervigilance rates (Fritz et al., 2018) and overstimulation in their workplaces, highly toxic places where officers often spend more time than in less toxic environments and with their own families. One important aspect to note is that correctional officers always return to the scene of an incident, and in a way, they never get to leave. This is due to correctional officers always working in the same environment and building where they experienced a traumatic event. This may influence the rates of hypervigilance and PTSD among correctional officers and may benefit from continuing research. A small amount of research has been done in federal correctional facilities in Canada, and even less has been completed in Provincial institutions. While the United States is the closest relative to the Canadian correctional system, the differences between the two are significant enough that the research completed in the United States is not as easily transferable to Canadian institutions.

This study found that most officers surveyed feel abandoned and left behind by their employers and believed that improving this relationship would aid in the mental wellbeing of officers. While this was not laid out in a hypothesis at the beginning of the study, the response lends itself to the belief that officer mental health does not lie solely on the prisoners and the incidents, but overwhelmingly, with the management teams and the organization structure itself. This claim was so prominent in officers' responses that it is crucial to study further. This study identified a research gap that may not have otherwise been considered a significant contributing factor to correctional officer mental health and has provided insights for future study.

There continues to be extensive and ongoing research for most first responder professions, including, but not limited to, police, firefighters, and paramedics. However, the literature on correctional officers is still minimal. This study will add to the small amount of research on correctional officers and shed light on this often secretive and unknown profession.

7.4 The Future

The future for correctional officers in British Columbia does not have to be a bleak one. The onus for correctional officer mental health must shift from laying solely on the employee to the employer. Keeping employees mentally and physically healthy in a violent, unpredictable, and traumatic work environment should be a top priority for BC Corrections; otherwise, correctional officers are going to continue experiencing very high rates of mental health disorders, burnout, and occupational stress injuries. Staff turnover and prolonged absences due to mental health issues are very costly. With continuing research from the academic community,

changes in the organization to protect officers' mental well-being, and better resources for all involved, these costs may be mitigated.

Furthermore, the correctional facility and the correctional officer can become a respected and revered first responder profession. Correctional officers are genuinely forgotten among first responders, but the future does not have to be riddled with the same organizational problems as the past. The officers who died by suicide experienced high rates of trauma, and an extremely toxic work environment will no longer have to suffer in vain.

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Appendix A – SF36v2 Survey

The OPTUM SF-36v2 can be found at https://www.qualitymetric.com/health-surveys/the-sf-36v2-health-survey

Appendix B – Qualitative Survey Questions

Q. 19: Are you aware of mental health resources available through your employer, if any? If no, skip to question 23. (N=164)

Q. 20: Since your employment with BC Corrections began, have you used any of the mental health resources available to you through your employer for needs that arose due to the nature of your work? (N=157)

Q. 21: If yes, what resource did you use (including, but not limited to CIRT/EFAP/Debriefing, etc.)? (N=110)

Q. 22: If yes, did you find this resource helpful? Why or why not? Please explain. (N=110)

Q. 23: Have you received any training or information from your employer regarding mental health NOT related to prisoner mental health? (N=180)

Q. 24: Have you used a mental health resource outside your workplace or not included in your benefits since your employment began for needs that arose due to the nature of your work (Including but not limited to, psychiatrists, psychologists, therapists, counsellors, helplines…)? (N=181)

Q. 25: What constitutes a traumatic incident that would require a debrief at your workplace? (N=179)

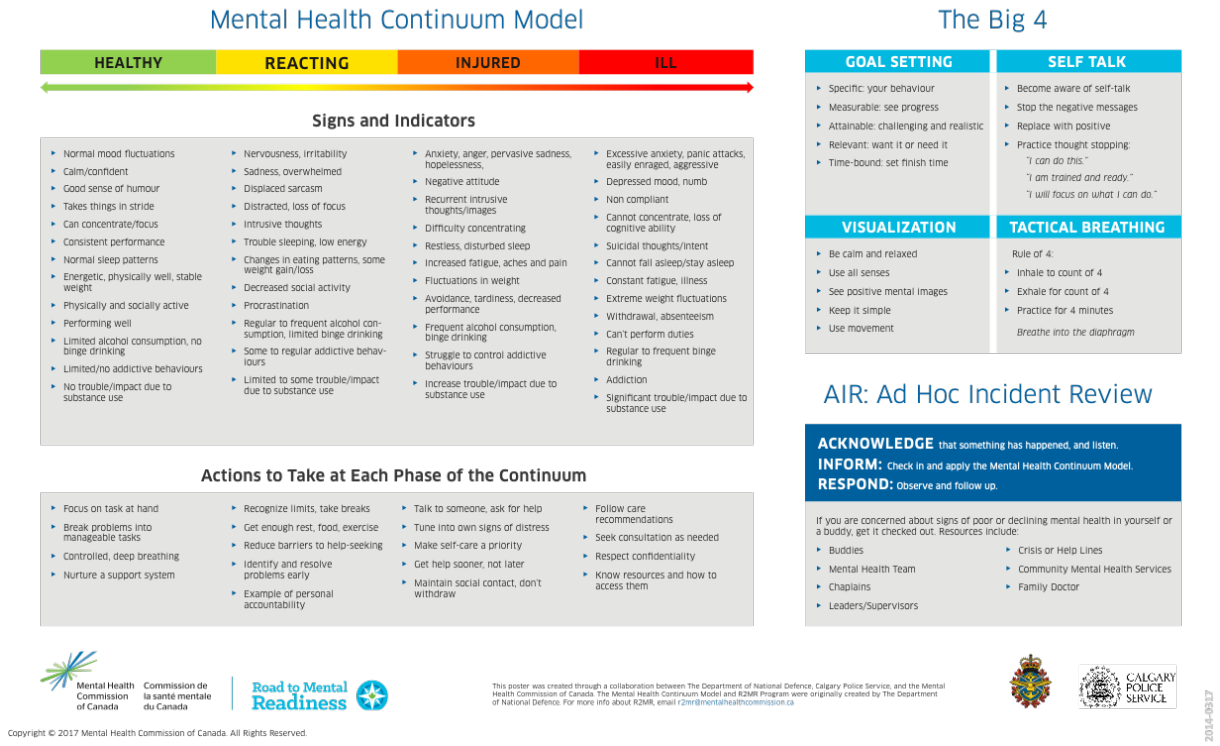
Q. 26: Does your workplace provide a formal debriefing after incidents? (N=185)

Q. 27: Has there been a traumatic incident that you did not receive a debrief that you wish you had? Please provide as many details as you are comfortable with. (N=169)

Q. 28: Has there been an incident that you would have coped with better if you had received a formal debrief? Please provide as many details as you are comfortable with. (N=165)

Q. 29: What mental health resources would you like to see available through your workplace (This can be on-site, off-site, added to coverage, etc.)?

Appendix C – Mental Health Continuum Model



(The Mental Health Commission of Canada, 2017)

Appendix D – Qualitative Codebook

Theme	Code	Definition	Theoretical framework
Benefits	Benefits	Anything that participants ask to be added to their benefit/coverage package, excluding mental health days.	Modern theory
	Mental health days	Mental health days to be added to benefits/coverage in addition to sick days.	
	Counsellors/practitioners who are familiar with the job	Any mention of utilizing professionals who are familiar with the workplace.	
	Off-site resources	Specific mention of resources off-site from the workplace	
Access to on-site resources	Mandatory	Any recommendation that a psych eval, counselling session or other check-in be mandatory for all officers	Neoclassic
	On-site resources	Specific mention of resources on-site at the workplace.	
Team- focused goals	Training	More training of any kind	Neoclassic
	Team building and communication – among staff, management.	Any mention of increased team building, communication or activities among staff, including management.	
Mortality	Death	Death of a prisoner or a staff member, whether by natural causes, unknown or murder	
	Suicide	Death of a prisoner or staff member by suicide. Attempted suicide by prisoner or staff that requires emergency medical	
Extreme violence	Code	Any code (blue, yellow, red) without a specified event (fight, death etc.)	Modern – fight, staff assault, code, assault Neoclassic – riot

			"Concurrent theories"
	Staff assault	Any assault of staff, including verbal threats.	
	Fight	A mutual physical altercation between prisoners	
	Assault	An unprovoked attack on a prisoner by 1 or more prisoners.	
	Riot	Any severe non-compliance situation including riots, sit-ins, and refusal to lockup.	
Emotional trauma (including self-harm)	Overdose	Accidental or intentional overdose of a prisoner (regardless of outcome)	Modern
	Affects psyche	Any event that affects the functioning of an officer	
	Self-harm	Self-harm that does not result in death, or emergency medical intervention (not including hanging)	
Abandonment	Unsupported staff	Any report of feeling unsupported, uncared for or otherwise left behind by management.	Modern
Extreme violence	Verbal threats	Verbal abuse of staff and overt threats	Modern
	Witnessing assault/violence/emergencies	Any emergency situation that involves violence or severe medical emergencies (i.e., Fight, assault, overdose)	
	Hostage taking/riot	Any severe non-compliance situation including riots, sit-ins, refusal to lockup, and hostage taking.	Neo-classical
	Suicide/self-harm	Death of a prisoner or staff member by suicide. Attempted suicide or self-harm by prisoner or staff that requires emergency medical	
	Staff assault	Any assault of staff, including verbal threats.	
	Death	Death of a prisoner or a staff member, whether by natural causes, unknown, overdose, or murder	

Abandonment	Bullying/harassment	Feeling uncomfortable around other staff for any reason, and/or being overtly bullied	Neo-classical
	Unsupported by staff/management	Being left behind by management or other staff, judged when you seek help or only offered to complete paperwork	Neo-Classical
	Blaming officers	Appearance of blaming officers for situations out of their control	Neo-classical
	Communication	Lack of communication or insufficient communication regarding incidents and debriefings	Neo-classical
Repression	Repression/avoidance	Any mention of avoidance or old school mentality.	Classical