Matching Mobile Crisis Models to Communities:

An Example from Northwestern Ontario

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Abstract

Due to the potential safety risks and nature of crisis response systems in Canada, police are often the first to encounter individuals when they are experiencing a mental health crisis. However, other professionals with different skill sets may be needed to optimize crisis response. As such, police and mental health service agencies have partnered to create mobile crisis response teams (MCRTs) consisting of police and mental health professionals who partner in crisis call response. While past evaluations of MCRTs have shown promising results (e.g., hospital diversions; cost-effectiveness), these programs are frequently researched in larger urban contexts. How MCRTs function in smaller jurisdictions, with fewer complementary resources, is unknown. Using an extended Donabedian model as a guiding framework, I conducted interviews with frontline and leadership staff, ride-along site visits, and reviewed program and agency documents to illustrate how the MCRT model operates in the context of the mid-size, geographically isolated, city of Thunder Bay, Ontario. Thematic analysis revealed 14 themes across four domains. Overall, the findings were supportive of the program's operation. With these findings, the present research identifies critical structures and processes of the embedded MCRT model, and it demonstrates the transferability of the MCRT model for other unique contexts. Considerations for the IMPACT program, community of Thunder Bay, and other communities are discussed. This research has implications for how MCRTs are conceptualized in the literature and how communities can make informed choices regarding what crisis models are best for them based on their resources and context, thereby, potentially improving crisis response and alleviating strain on critical and highly burdened emergency departments and service systems.

Keywords: mobile crisis response team, program evaluation, crisis response, Northern contexts

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List of Abbreviations

Abbreviation	Definition
CIT	Crisis intervention training
CMHA	Canadian Mental Health Association
IMPACT	Integrated Mobile Police Assessment Crisis Team
MCRT	Mobile crisis response team
MHA	Mental Health Act of Ontario
PLMI	Person(s) living with mental illness
TBPS	Thunder Bay Police Service

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Matching Mobile Crisis Models to Communities: An Example from Northwestern Ontario

Due to the nature of emergency response systems, police are often the first to encounter individuals living with mental illness in crisis situations, despite mental health response not being the primary mandate of police agencies and other professionals being better trained to respond to these instances (Shore & Lavoie, 2019; Steadman et al., 2000). To improve the services that people receive and keep communities safe, police have partnered with service agencies to create mobile crisis response teams (MCRTs). These teams consist of police and mental health professionals who share the responsibility of responding to crisis calls. MCRT models vary in structure (e.g., mental health worker type) and function (e.g., call triage criteria, approach to co-response). Past MCRT evaluations have shown promising results (e.g., cost-effectiveness) but are limited because they have been outcome-focused (Shapiro et al., 2015), which obscures information about *how* and *why* a model thrived or failed to succeed (Kirst et al., 2015). This is a major shortcoming of the current literature since no one MCRT is likely a panacea for all Canadian jurisdictions (Cotton & Coleman, 2010). Furthermore, only recently has guidance been published for communities about how to choose a model that is best suited to their unique context (Mobile Crisis Response Teams Provincial Working Group, 2023a). In short, research is needed to examine *how* MCRT models work in different communities to understand which model is best suited for which community.

My thesis document will begin by describing Canada's mental health crisis, police response to mental health calls, and how mobile crisis response teams have been created to complement police response to mental health-related calls for service. In this process, I will identify the gaps in knowledge and then propose an extended Donabedian model (Donabedian, 1966, 1989) to include context as a framework to address these gaps and a foundation for my

research objectives and hypotheses. Next, I will describe my proposed research methodology, including data collection and analysis plan. Finally, I will discuss my anticipated results, implications of this research, and possible challenges that may arise during this research.

1. Literature Review

1.1. Mental Health Crisis

According to the World Health Organization (2020), many nations are experiencing a mental health crisis, with an estimated near one billion people currently living with a mental disorder (World Health Organization, 2020). In Canada, data from the 2012 Community Health Survey – Mental Health revealed that one in three Canadians will meet the criteria for a mental disorder in their lifetime (Pearson et al., 2013). Furthermore, findings from this survey estimated that there are 1.6 million Canadians with unmet mental health care needs each year (Canadian Mental Health Association, 2018; Sunderland & Findlay, 2013). More recently, findings from the Survey on COVID-19 and Mental Health revealed that one in four Canadians screened positive for symptoms of anxiety, depression, or post-traumatic stress disorder at the time of survey completion (Statistics Canada, 2021). In Ontario, the use of mental health services significantly increased from 7.8% to 12.8%, between the years 2002 to 2014 (Chiu et al., 2020). In short, with the observed increase in prevalence of mental health disorders and increased use of mental health services, it is crucial to ensure that appropriate support systems are in place for persons living with mental illness, especially when these individuals may experience crisis.

To frame the current state of Canadian mental health crisis response, the following section will introduce four well-established pressures on the system: deinstitutionalization and associated political pressure, mental health services in Canada, and the COVID-19 pandemic. Deinstitutionalization and associated political pressure and mental health services in Canada can

be understood as structural factors that play a role in how mental health crisis is responded to, whereas the COVID-19 pandemic can be understood as a contextual factor that is affecting the current mental health crisis.

1.1.1. Deinstitutionalization and Consequential Political Pressure on Mental Health Systems

Deinstitutionalization is recognized as a contributing factor to the increase in persons living with mental illness (PLMI)[1] -police encounters, and the current mental health crisis that is being observed, where individuals in the community cannot access crucial mental health resources (Cotton & Coleman, 2010; Talbott, 1979). Deinstitutionalization refers to the closure of psychiatric hospitals and shift to community care including supportive housing, medication, and medical care provided in local hospitals and clinics, in an effort to integrate PLMI into general society (Mechanic et al., 2013; Richman & Harris, 1982). This process began in the 1960s in Canada (Dooley, 2012; Sealy & Whitehead, 2004), but is still ongoing to this day (Sealy, 2012). Some favourable aspects of deinstitutionalization are increased community treatment models (shown to reduce hospital admissions and shorten stays; Tyrer et al., 1989) and the integration of PLMI into general society (Shen & Snowden, 2014).

Specifically in Ontario, the release of a report entitled *Building Community Support for People: A Plan for Mental Health in Ontario* (Graham, 1988), also known as the Graham Report, marks a key step in deinstitutionalization and has been referred to as the beginning of mental

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[1] Please note that in the literature, the commonly used term is persons with mental illness (PMI); however, I wish to use person-centered language in my thesis. Therefore, I will be using the term persons living with mental illness (PLMI).

health reform in Ontario (Everett, 1998). In this report, Graham (1988) calls for a community-focused mental health care system, moving individuals with mental health issues out of asylums and hospitals and back into the community. However, the political climate changed shortly after the release of this report, with political powers shifting from a Liberal government to New Democratic Party (NDP) with the election of Bob Rae (Everett, 1998). Despite hopes and promises for improvements in healthcare (Gray, 1990), Rae's government struggled with an economic recession, leading to frozen pay increases and unpaid leave for public sector employees (including healthcare workers) and increases in the provincial debt from $42 to $92 billion in the five years (1990-1995) of the NDP government (Robinson, 1996). Afterwards, the Conservatives took power of Ontario under the leadership of MPP Mike Harris, who embraced neoliberal policies, including the privatization of healthcare (Gill, 2021). Under the Harris government, there were massive cuts to health and social services and the closure of many hospitals (Gill, 2021). The acceleration of deinstitutionalization in Ontario has thus been attributed to the Harris government, and this accelerated deinstitutionalization has led to a lack of proper shelter and resources and overall gaps in care in Ontario (Gill, 2021; Maxwell, 2009). Healthcare professionals and community-based organizations are still working to fill these gaps.

An important consequence of deinstitutionalization is the increased criminalization of mental illness (Lamb, 2015). Specifically, when people in mental health crisis cannot access services and do not have appropriate supports, they may commit crimes or behave in ways that attract police attention (Centre for Addiction and Mental Health, 2013). Indeed, prisons have been referred to as the "new asylums", especially in the American context (Konrad, 2002; Shenson et al., 1990). While community care is sufficient for many individuals, deinstitutionalization has resulted in adverse consequences and inappropriate supports for others

(Lamb, 2015). Thus, deinstitutionalization can be understood as a historical factor contributing to the current mental health landscape and the current number of PLMI-police encounters (Cotton & Coleman, 2010).

1.1.2. Mental Health Services

For many individuals, their primary care provider or family health team is the first point of contact when seeking mental health services (Kates, 2017; Kates et al., 2011). However, many primary care providers or family health teams are under-resourced for mental health care and most physicians do not have appropriate training to provide evidence-based mental health services (Ashcroft et al., 2021; Scharf & Oinonen, 2020). Other than in primary care provider settings, individuals may receive mental health services in specialist care, such as psychiatrist offices, hospitals, private practice, residential treatment programs, or different community-based programs (Brien et al., 2015; Canadian Institute for Health Information, 2019; Peachey et al., 2013) .

Mental health services, which may prevent the need for crisis response or emergency services for mental health problems, are often not accessible to individuals. Upon analyzing data on Ontario community mental health programs, Durbin et al. (2012) discovered that individuals on public assistance had a higher risk of being severely underserved for mental health issues than those not on public assistance. Financial barriers prevent individuals from accessing mental health treatment (Craske et al., 2005; Sareen et al., 2007). In Canada, individuals often pay for mental health services out-of-pocket or through insurance, which may only pay for two to eight sessions (Canadian Mental Health Association, 2018; Peachey et al., 2013). Indeed, the COVID-19 pandemic has illuminated this gap in care, with psychologists calling for the integration of registered mental health providers into provincial public health insurance (Scharf & Oinonen,

2020). Registered mental health service providers are the following: physicians, social workers, occupational therapists, psychiatrists, regulated nurses, and psychologists (Canadian Institute for Health Information, 2019), however, only physicians and psychiatrists are covered by the provincial public health insurance (Scharf & Oinonen, 2020). With the increasing need for mental health services, there needs to be a sustained effort in equitably improving these services such that all individuals can access mental health services (Chiu et al., 2020).

Furthermore, minority groups are more likely to experience barriers in accessing and maintaining treatment (Atdjian & Vega, 2005; Lu et al., 2021; Miranda et al., 2015) and are more likely to mistrust police officers (Brown & Benedict, 2002; Murphy & Cherney, 2011). Thus, it is critical to incorporate intersectionality in understanding mental health services and policing (Mcpherson & Mcgibbon, 2010; Shore & Lavoie, 2019).

In Canada, mental health services are under the governance of provincial bodies (Martin et al., 2013). Therefore, it is important to describe the policy context specifically within the province of Ontario where this study is set. In a report prepared for the Chief of the Toronto Police Service, Iacobucci (2014) contends:

> "Ontario does not have a coordinated, comprehensive approach to treating mental health issues. Instead, there is a patchwork collection of hospitals, community treatment organizations, housing programs, and mental health practitioners, only some of which receive public funding—funding that is, in any event, often inadequate to meet the needs of the community. This patchwork of resources is tasked with addressing the significant and complex challenge of proactively treating mental illness" (p. 83).

Thus, we see police filling a gap in mental health care, despite this not being a primary objective of the police.

1.1.3. COVID-19 Pandemic

The COVID-19 pandemic can be understood as a factor that has perpetuated and worsened the current mental health crisis. Overall, the pandemic has had and continues to have a substantial negative psychological impact on individuals, including increased anxiety and depression, and decreased life satisfaction and positive affect (Dozois, 2020; Talevi et al., 2020; Zacher & Rudolph, 2020). Mental health hotlines witnessed increases in call volumes with the most prevalent symptoms being those related to anxiety (Abdullah et al., 2021; Batchelor et al., 2021; Brülhart et al., 2021; Peppou et al., 2021; Scerri et al., 2021). Moreover, academics have speculated that the pandemic will have long-lasting impacts on mental health (Best et al., 2020; Brooks et al., 2020). Vadivel et al. (2021) assert that challenges such as overburdened systems, increased prevalence of mental health issues, and interruptions to mental health services in a post-pandemic world will continue to prevent individuals from accessing services, leaving individuals untreated and with exacerbated mental health issues.

In a longitudinal study of police service calls from 2014 to 2020, Koziarski (2021) revealed that while calls involving PLMI did not immediately increase at the beginning of the pandemic (March 2020), an increase was observed in August, which continued to rise until the end of the study (November 2020). Overall, there was a 22% increase in police calls involving PLMI compared to non-pandemic times. Thus, although its effects on mental health were not immediately apparent, it is evident that the longevity of the COVID-19 pandemic has not only affected the mental health of individuals but also has implications for the volume of police-PLMI encounters.

In summary, it is evident that Canada is in the throes of a mental health crisis. For reasons such as deinstitutionalization, a lack of accessible mental health services, and the

COVID-19 pandemic, we observe PLMIs (who may be in crisis) in the community seeking help. Thus, communities need appropriate systems to handle this. A coordinated, inter-professional collaboration across different sectors, both inside and outside the healthcare system, is needed for crisis response (Winters et al., 2015).

1.2. Police Encounters with PLMI

While Canadian statistics vary by jurisdiction, police regularly encounter PLMI. In fact, police are often the first to support these individuals in crisis situations (Shore & Lavoie, 2019; Steadman et al., 2000). Several authors have referred to police as 'frontline mental health workers' (Green, 1997; Mclean & Marshall, 2010; Shore & Lavoie, 2019), despite their training focus on protecting public safety (Lurigio et al., 2008) . Furthermore, police may be left with no choice but to directly deal with these situations as support services may not be readily available due to funding and provider shortages in many regions of the province (Short et al., 2014). Officers report frustration with the inability to connect individuals with appropriate mental health services (Cotton & Coleman, 2010; Iacobucci, 2014).

Calls involving PLMI tend to be more resource intensive. Lum et al. (2021) highlight the relative resource intensiveness of mental health-specific calls, with these calls occurring less often but requiring more resources and often taking longer than other calls, in comparison with safety-focused calls that often include contact with PLMI but are not for a mental health services specific request. Please note that this low frequency is regarding mental health-specific calls rather than calls that involve PLMI, which is higher in frequency. This relative resource intensiveness is echoed in general analyses of calls as well. A study conducted in Montreal, Quebec, controlling for use of arrest and call severity, revealed that interventions involving PLMI used 87% more resources than interactions with those without mental illness (Charette et

al., 2014). Additionally, Charette et al. (2014) also discovered that when controlling for offense severity, PLMI were twice as likely to be arrested than individuals without mental illness. Moreover, despite the general resource intensiveness of these call, further analysis revealed that interactions with PLMI were less likely to be related to severe offenses than with individuals without mental illness (Charette et al., 2014).

Statistics support that police encounters with PLMI tend to occur regularly. In a study conducted in London, Ontario, using data from 1999-2003, PLMI were reported to have three times more interactions with police than people without mental illness (Hartford et al., 2005). Moreover, in 2008, Wilson-Bates published a report for the Vancouver Police detailing that between 29% and 49% of police calls involved a PLMI during the 15-day study period. In a report by Boyce et al. (2015), analysis of the 2012 Canadian Community Health Survey – Mental Health revealed that out of those who had encountered police in the 12 months prior to the survey, nearly one in five met the criteria for a mental or substance use disorder. Such statistics demonstrate the frequency with which police encounter PLMI in Canada.

Some authors have argued that police interactions with PLMI are more sparse than previously reported or commonly believed (Hodgkinson & Andresen, 2019; Livingston, 2016; Lum et al., 2021). However, frontline workers may not necessarily be able to identify mental illness, and these arguments focus upon mental health-specific calls, which highlights an issue in reporting (Bohrman et al., 2018; Koziarski et al., 2022; Livingston, 2016). Furthermore, such reports neglect to acknowledge the prevalence of PLMI in the general population.

1.2.1. MHA Apprehension

Under the Mental Health Act of Ontario (MHA; RSO 1990, c. M.7), police may apprehend individuals they believe are to be of harm to themselves or others to transport them to

a hospital to be seen by a physician. As a result of this, the majority of police encounters with PLMI in crisis result in MHA apprehension (Charette et al., 2011; Shore & Lavoie, 2019). With police as sole first responders to mental health crises, the terms of the MHA may result in over-apprehension of PLMI, leading to further stigma and trauma for PLMI and burdening public healthcare resources such as emergency departments instead of connecting PLMI with appropriate and necessary services (Shore & Lavoie, 2019). There are currently no guidelines on best practices for PLMI patient transfer practices in Canada and many police agency transfer polices do not emphasize using the least restrictive means of transfer, meaning that PLMI may face the threat of physical force or be placed in physical restraints during MHA patient transfers when persons trained to use less restrictive protocols might be able to do so successfully (Neilson et al., 2020). Moreover, hospitals may not be the best option for PLMI who are experiencing crisis as individuals may be admitted and then subject to long stays, physical restraints, or sent home when hospitals identify community supports as a better fit (McKenna et al., 2015). Thus, the presence of mental health professionals as co-responders to crisis calls may aid in better threat assessment and prevention of over-apprehension of PLMI (Coleman & Cotton, 2010; Lamb et al., 2002).

1.2.2. Fatal Encounters

In addition to the over-apprehension of PLMI, fatal encounters involving police and PLMI are a documented concern in police response to mental health crises. An investigative report by the CBC declared that over 70 percent of fatal encounters with police involve individuals with mental health and substance abuse problems (Marcoux & Nicholson, 2018). In response to these fatalities, there has been a large call for alternatives to traditional police response for PLMI in crisis (L. Braun, 2022; Nasser, 2020; Owen, 2020). Academics and activists alike have

highlighted the need to find more balanced approaches in which police are not solely responsible for addressing mental health crises, but also are not fully removed (Koziarski & Huey, 2021). Fatal incidents with PLMI are a common argument for police reform and a long-standing concern for PLMI and their families (Ghelani et al., 2023; Koziarski & Huey, 2021; Watson et al., 2021).

1.2.3. Police Mandate

Traditional police mandates do not properly address the needs of communities or the nature of all calls for service. While traditional police mandates have heavily focused on crime, the majority of police incidents involve safety *and* welfare concerns, thus not falling under traditional mandates (Wuschke et al., 2018). Moreover, traditional policing has tended to be reactive, responding to incidents often after the situation has escalated rather than attempting to prevent the situation itself (Cotton & Coleman, 2010). Lastly, traditional policing focused on centralized authority, and neglected to work with other organizations or community members to identify the needs of the community and other organizations or systems that could assist in response to these needs (Cotton & Coleman, 2010; Peak, 2013).

To address the gaps of traditional policing and improve police-community relations, the concept of contemporary or community policing was created (Peak, 2013). Some of the key principles of contemporary policing are as follows: A client-centered focus; decentralization of authority and decision-making; a multi-agency approach; adapting to the needs of the community; procedural justice; and relationship building (Coleman & Cotton, 2014; Cotton & Coleman, 2010). The majority of Canadian police agencies identify as community or contemporary agencies (Coleman, 2006). Thus, police must respond to the demands of the

community, which often includes social work and mental health aspects (Cotton & Coleman, 2010; Iacobucci, 2014).

However, "mental illness is not, in and of itself, a police problem" (Pepler & Barber, 2021, p. 94). Since mental health crisis is often accompanied with concerns surrounding safety and welfare, which do fall under police mandates, police are commonly the first line of response (Pepler & Barber, 2021). Therefore, police need to be adequately trained *to respond* to these calls and *interact with* PLMI. Simultaneously, police must also be trained to collaborate with other organizations and systems who are equipped to *address* mental health crisis, *treat* mental illness, and *prevent* future mental health crises.

1.2.4. Police Training

Police training, including mental health-related training, varies from region to region. In a report commissioned by the Mental Health Commission of Canada, Cotton and Coleman (2014) developed the Training and Education about Mental Illness for Police Organizations (TEMPO) framework for police agencies. The TEMPO framework or training model can be used to design curricula or as a tool to identify gaps in training. This framework was intentionally created to ensure that police education is comprehensive but still applicable and possible for a wide range of jurisdictions. This framework sets forth a multitude of different modules or training objectives for officers based on factors such as rank, previous training, and primary population served. In this training model, all officers receive 35-40 hour training in the fundamentals of contemporary policing, the basics of mental illness, stigma, police interactions with PLMI, decision-making frameworks for working with PLMI, and about referrals to and collaboration with mental health agencies (Coleman & Cotton, 2014). Then, depending on the aforementioned factors, officers receive additional training to complement their position and population served. Additionally,

one-day training is provided as a refresher every three years for all police officers. This training emphasizes a systems-approach where police work with other organizations to best meet the needs of PLMI. While the TEMPO model demonstrates the potential of police agencies to improve interactions with PLMI, this model is aspirational and rarely a reality in police organizations (Coleman & Cotton, 2014) .

For example, in the City of Toronto, all police officers are trained to work with PLMI, including threat assessment and de-escalation tactics (Toronto Police, 2013). In fact, Coleman and Cotton (2014) recognized this program as a well-developed and comprehensive program. The majority of Canadian police academies, if not all, include some degree of mental health training, but there are gaps such as purely classroom-based discussion, not incorporating the topic of PLMI in discussions of use-of-force or vice versa, and some police academies not including mental health professionals or a PLMI in the development of the curriculum (Coleman & Cotton, 2014). Thus, the quality of police mental health training and curriculum are inconsistent across Canada. Some police forces may be better equipped to deal with PLMI than others.

Police education and training alone are insufficient for responding to mental health crisis calls (Coleman & Cotton, 2016). The purpose of training police in mental illness and PLMI interactions is not to shift the role of police into that of a mental health professional, but rather ensure that they are equipped to interact with these individuals when they inevitably encounter them. In line with the principles of contemporary policing, police must also work collaboratively with mental health professionals to ensure that individuals experiencing mental health crises receive adequate care and supports (Coleman & Cotton, 2014, 2016; Cotton & Coleman, 2010; Winters et al., 2015). Thus, several mental health crisis response models have been developed

that involve collaboration with these professionals. The following sections focus on the two predominant models: Crisis intervention teams and mobile crisis response teams.

Notably, there is a wide variety of crisis response team models (Lamb et al., 2002; Shapiro et al., 2015). For the purposes of this thesis, I will limit my scope to models that include police in the first response to crisis. Table 1 illustrates some of the different crisis response models and how these programs differ across a set of defining features. Additionally, some characteristics may vary between and within model types, such as hours of operation and the uniform or vehicles used. These more peripheral factors are further discussed in Section 1.4.

Table 1

Crisis Response Models and Their Features

Crisis model	Type of Response	Model of Response	Triage Method	Staff
Crisis Intervention Teams	First response[1] or secondary response[2]	Police only	Emergency dispatch or police already on-scene	Police only
Mobile Crisis Response Teams/Co-Response Teams	First or secondary response	Co-response: Embedded or ride-seperate	Emergency dispatch or police already on-scene	Police and mental health professional
Non-Police Mobile Crisis Teams	First response or MH provision	Co-response (no police)	Emergency dispatch or police already on-scene	Two health professionals, with at least one who specializes in mental health
Crisis Phone Support	MH provision	Telephone support	Telephone support	Mental health professional

Note. [1]First response refers to first professionals on scene. [2]Secondary response refers to being summoned by other professionals already on scene.

1.3. Crisis Intervention Teams

The crisis intervention team (CIT) model was first created in the 1980s after a PLMI was killed in an interaction with the police (Reuland, 2010). The CIT model, also known as the Memphis model, attempts to address the gap in knowledge through specialized 40-hour officer training in mental health response (Compton et al., 2008). Officers often choose or self-elect to complete the training themselves; however, sometimes officers are elected to complete the training by their agency (Watson et al., 2008). CIT training aims to teach officers how to appropriately respond to individuals facing mental health crises (e.g., de-escalation techniques and education on mental health risk assessment) and connect these individuals to services in the community (Brown Cross et al., 2014; Cochran et al., 2000; Cotton & Coleman, 2010; Watson et al., 2008). Indeed, one of the most important aspects in ensuring the success of the program is strong partnerships with community-based resources in order to refer individuals to these services (Watson et al., 2008).

There is considerable overlap between the content of CIT training and the basic training in the TEMPO framework (Coleman & Cotton, 2014). This is because the TEMPO framework was created after the CIT model and was inspired by the best practices of CIT models in the creation of this framework. The CIT model remains to be a dominant approach in the United States (Rogers et al., 2019).

Some of the documented benefits of CITs include reductions in use of force, reduced criminal justice involvement, improved referrals to community-based care, and cost-effectiveness (Watson et al., 2017). However, in a meta-analysis of CITs, Taheri (2016) found null effects of CITs on arrests and public safety. Overall, this model has shown to be beneficial. While the CIT model has shown to be helpful in police mental health response, this is indeed

only one of the models available and not necessarily the best fit for all jurisdictions and communities (Coleman & Cotton, 2016).

In the CIT model, officers do not directly collaborate with mental health professionals in responding to crisis calls but rather learn from these professionals who work as CIT trainers and give referrals to community-based resources where these professionals work (Munetz & Bonfine, 2022; Watson et al., 2008). If a mental health professional is needed on site, CITs may call non-police mobile crisis teams for assistance. A non-police mobile crisis team is a two-person interdisciplinary team that can consist of various mental health professionals, such as nurses, social workers, psychiatrists, psychologists, mental health technicians, addiction specialists, and peer counsellors (Kim & Kim, 2017).

While CITs play a vital role in a systems response, co-response models are an alternative model that ensures that a mental health professional is on the scene with police without the need to call other crisis teams. Thus, co-response models are a similar but alternate approach to CITs that communities may choose due to a multiplicity of reasons, including funding parameters (e.g., funding may occur in silos and therefore may only be able to support police) and community characteristics and needs, including geographical location and mental health call volume (Cotton & Coleman, 2010; Pepler & Barber, 2021; Reuland, 2010).

1.4. Mobile Crisis Response Teams

In Canada, MCRTs, also referred to as mobile crisis response teams or co-response teams, are the predominant approaches to police response to PLMI (Cotton & Coleman, 2010; Kean et al., 2012). As previously mentioned, these teams consist of a mental health professional and a specially trained police officer co-responding to calls for service involving a person experiencing a mental health crisis. Importantly, MCRTs facilitate collaboration and information

sharing between mental health professionals and police, two professions that have traditionally operated in silos, to better meet the needs of PLMI (Lamb et al., 2002; Pepler & Barber, 2021; Rosenbaum, 2010). The primary goal of MCRTs is to provide assessment, support, and intervention for PLMI while preventing the escalation of the situation through emergency department diversion, jail diversion, prevention of the use of force, and referrals to services in the community (Lamanna et al., 2018). Beyond responding to mental health calls, MCRTs may follow up with clients post-contact to reduce the need for future use of emergency services (Thompson, 2021). Moreover, the care provided by MCRTs is intended to be less restrictive, allowing individuals to remain in their usual environment and with their natural supports while emphasizing their self-efficacy (Balfour et al., 2022; Walter & Petr, 2011).

The overall objectives of MCRTs can be understood through the Quadruple Aim (Q-Aim) framework for improving processes of care, a framework that has been often employed in health system reform (Bodenheimer & Sinsky, 2014; Sikka et al., 2015; Valaitis et al., 2020). In this model, healthcare delivery can be understood as aspiring to achieve four aims: 1) advancements in population health (i.e., outcomes); 2) improved quality of care (i.e., patient experience); 3) reduced healthcare and other social services costs; and 4) improved provider experience (e.g., provider satisfaction, well-being, and burnout prevention) (Bodenheimer & Sinsky, 2014).

Regarding the first two aims, the enhanced police training and collaboration with mental health professionals present in MCRTs are intended to provide a more appropriate response to mental health calls and the provision of higher quality care, compared to police-only response (Marcus & Stergiopoulos, 2022; Thompson, 2021). Mental health professionals can collaborate with clients to create a care plan that is attuned to the clients' unique needs and wants and

advocate for clients when they are referred to different service agencies, including hospitals (Evangelista et al., 2016; Ghelani, 2021; Lamanna et al., 2018). Thus, MCRTs may help to better serve all individuals in the community. However, there is still a gap in knowledge if MCRTs are meeting the needs of marginalized populations and providing better service than traditional models (Ghelani, 2021).

Additionally, the enhanced training provided to police officers in MCRTs is intended to assist in appropriate risk assessment, crisis de-escalation, and better knowledge of mental health issues, contributing to improved outcomes and patient experience (Saunders & Marchik, 2007). In sum, due to the specialized knowledge of the mental health professional and enhanced training of police officers, MCRTs may improve overall population health and provide more appropriate, better-quality care than traditional police-response models.

Next, MCRTs are intended to facilitate cost-savings for communities, with fewer resources being spent on high-cost police services and fewer jail or emergency department dispositions through referrals to community-based resources (e.g., Semple et al., 2021). Lastly, MCRTs are designed to improve provider experience as well. The ability for police to self-select for this position and for police and mental health professionals to utilize their unique skills and abilities to respond to crisis calls may assist in enhancing the provider experience, including job satisfaction and wellbeing. Moreover, these programs are intended to support frontline workers and relieve pressure on frontline staff, including police and hospital, thus improving provider experience in multiple organizations and teams (Thompson, 2021). Past studies have captured provider satisfaction with services (Puntis et al., 2018).

Overall, MCRTs are designed to provide a higher quality, lower cost response to mental health calls compared to traditional police response, while simultaneously providing client-

centered and less restrictive care to individuals experiencing mental health crisis and bridging them to community resources. Whether existing MCRTs function as intended, especially in Canada, requires further research (Boscarato et al., 2014; Koziarski et al., 2021; Shapiro et al., 2015). The current evidence demonstrates numerous benefits to these programs but does not examine the effectiveness of these teams, that is, how outcome measures have changed pre- and post-implementation or what benefits are due to the MCRT and not due to other factors in the community. The gap in knowledge around MCRT effectiveness is partially due to an absence of controlled studies and issues with implementing study designs to address this gap in knowledge (Puntis et al., 2018). The gap in knowledge around MCRT effectiveness is also complicated due to vast differences in how individual programs are operationalized. Nonetheless, the benefits of MCRTs have been captured in the literature and are discussed in a following section.

1.4.1. Mobile Crisis Response Team Models, Community Fit, and Resources

Due to a myriad of reasons such as partnership approaches, funding, agency capacity, and local context, MCRTs can vary in structure and process beyond the prototypical features that are consistent for this model (Abella et al., 2022; Reuland, 2010). First, the composition of team members can vary. MCRTs can consist of police and a variety of different mental health professionals including mental health nurses (Kirst et al., 2015; Lamanna et al., 2018), paramedics (Bailey et al., 2018; Fahim et al., 2016a), social workers (Ghelani, 2021), or other mental health workers (Boscarato et al., 2014). Next, police appearance can vary; officers may be in plainclothes or in uniform (Kirst et al., 2015; Puntis et al., 2018). Furthermore, vehicles may be unmarked or not (Puntis et al., 2018). Moreover, service models may consist of mental health workers riding along with police to answer calls, providing telephone support to officers, or a hybrid of both (Boscarato et al., 2014; Horspool et al., 2016; Mobile Crisis Response Teams

Provincial Working Group, 2023a; Puntis et al., 2018). The method of referral also may vary (e.g., crisis lines, emergency response, direct from police officers, or public line; Puntis et al., 2018). Additionally, programs may vary in hours of operation (Koziarski et al., 2020; Puntis et al., 2018). For example, some programs may run 24/7, while others may only operate during certain times of day or vary in hours of operation depending on the day (Koziarski et al., 2020). Therefore, the manifestations of MCRTs differ between jurisdictions.

MCRTs vary on several dimensions, as demonstrated above. However, no model or set of components is likely to fit the needs of every community or context (Shapiro et al., 2015). Thus, jurisdictions must tailor these components to the community needs, unique characteristics, and available resources (Reuland, 2010).

In the article "Tailoring the police response to people with mental illness to community characteristics in the USA", Reuland (2010) proposed that police-based mental health responses are adapted to address *community needs* and fit *community characteristics*. By identifying community needs, agencies can make informed decisions regarding MCRT components. For example, community needs may help guide service hours or the mental health professional chosen. Community characteristics that can affect program fit include the mental health resources of the community and the geography and demography of the jurisdiction (Puntis et al., 2018; Reuland, 2010).

Importantly, availability of resources, both human and financial, differ among jurisdictions which can affect program implementation. The parameters set by funding agencies, including required MCRT program components, or costs limited to one agency or another (i.e., police or mental health, but not both), may dictate MCRT components (Pepler & Barber, 2021). Additionally, the availability of program-specific resources may require agencies to adapt their

program in ways that may not best address community needs, while still attempting to maximize community fit.

To demonstrate how communities balance their needs, characteristics, and resources, I provide an illustrative example. Consider a community that aims to improve police interactions with PLMI and community relations. Some of the literature suggests that unmarked cars and non-uniformed police officers may contribute to consumers experiencing less stigma associated with crisis service use (Evangelista et al., 2016; Kirst et al., 2015; Puntis et al., 2018). A community with this need may therefore prioritize a non-uniform/unmarked cars component. However, if the community population is not big enough to justify unmarked cars and non-uniformed officers, or if the MCRT is also responsible for responding to non-mental health-specific calls when the police are short-staffed, the community may not be able to adopt this component.

While the flexibility of MCRT structure and operations allows for wider implementation of the model and the ability to adjust these teams to local context and available resources, the heterogeneity of MCRTs can make consolidating findings across studies difficult, muddying conclusions about the active components of MCRTs, and results in a lack of transferability of findings in past research (Puntis et al., 2018). Therefore, it is essential to understand the key components of MCRTs and how they may contribute to MCRT function and effectiveness (Kirst et al., 2015; Puntis et al., 2018).

1.4.2. Evidence for MCRTs

Past evaluations have demonstrated multiple positive outcomes of MCRTs, compared to mental health responses in traditional policing models. Table 2 summarizes MCRT outcomes by study. In addition to these outcomes, a reduction of police use-of-force interactions with PLMIs

in those who have undergone crisis intervention training or are members of MCRTs has been observed in some studies (Blais et al., 2022; Lamanna et al., 2018; Morabito et al., 2012), while no significant differences were found in others (Compton et al., 2014). Indeed, in a meta-analysis of police-only, co-response, and non-police models, Marcus and Stergiopoulos (2022) concluded that co-responder models often yielded superior outcomes than police-only responses, with some mixed findings. Thus, it is evident that MCRTs tend to provide a beneficial, more appropriate, and more informed response to mental health crises than traditional police-only response models. Other benefits of MCRTs that I have hypothesized, which are not frequently reported or investigated in the literature, include increased self-efficacy of clients, relationship-building between clients and team members, and community building.

Table 2

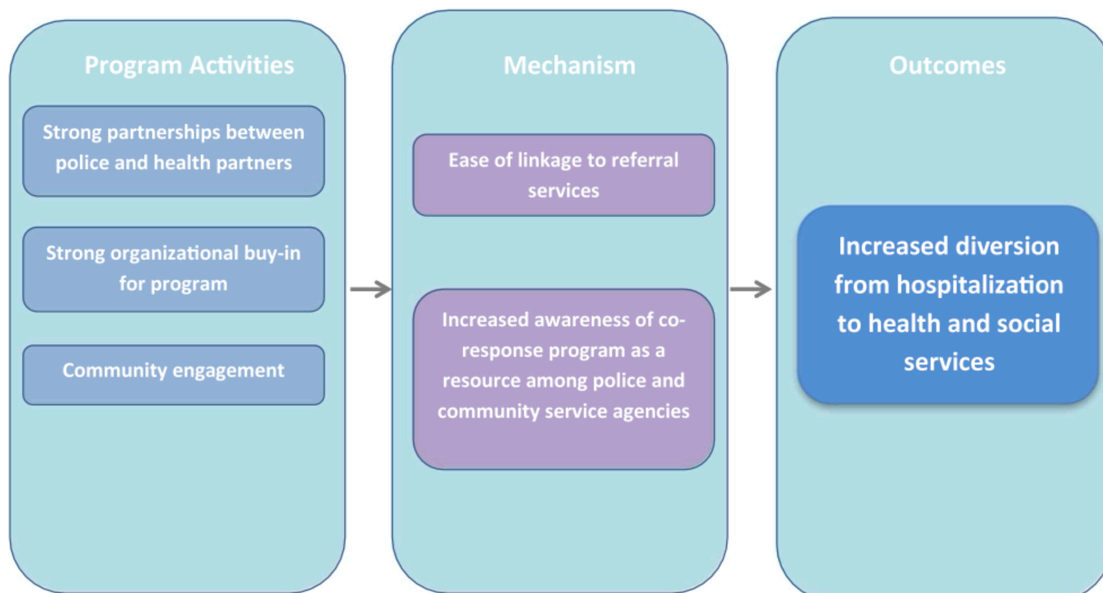
Summary of Mobile Crisis Response Teams Outcomes by Study

Outcome	Studies	Q-Aim
Aversion of crisis escalation and injury	Lamanna et al., 2018	Improved outcomes; quality of care
Increased hospital diversions	Baess, 2005; Blais et al., 2022; Lamanna et al., 2018; Landeen et al., 2004; Semple et al., 2021; Steadman et al., 2000	Improved outcomes; quality of care; community cost savings
Reduced number of arrests (jail diversion)	Borum et al., 1998; Lamanna et al., 2018; Steadman et al., 2000	Improved outcomes; quality of care; community cost savings
Minimized officer time on each call	Baess, 2005; Borum et al., 1998; Lamanna et al., 2018	Improved outcomes; community cost savings; enhanced provider experience
Improved officer awareness around mental health issues and/or perceptions of PLMI	Baess, 2005; Semple et al., 2021	Improved outcomes; quality of care; enhanced provider experience

However, the process in which MCRTs achieve these outcomes often remains misunderstood. Through a systematic review, Shapiro et al. (2015) presented a model with proposed mechanisms by which increased diversions from hospitalization to health and social services are achieved by MCRTs (see Figure 1). This demonstrates the complexity of achieving these outcomes and emphasizes the need to focus on process in MCRT research. The presence of an MCRT alone does not ensure increased diversion from hospital to health and social services. Rather, the activities of the program, such as strong partnerships between police and health partners, strong organizational buy-in, and community engagement, facilitate linkage to referral services and increase awareness of the program among other police officers and community service agencies. These mechanisms, in turn, contribute to hospital diversions.

Figure 1

Mechanisms by Which MCRTs May Increase Diversions from Hospitalization to Health and Social Services



*Note. F*rom “Co-responding Police-Mental Health Programs: A Review,” by G. K. Shapiro et al., 2015, Administration and Policy in Mental Health and Mental Health Services, 42(5), 616 (doi: 10.1007/s10488-014-0594-9). Copyright 2015 by Springer. Reprinted with permission.

Absent from this model are contextual and structural components, which also must be considered. Contextual factors, such as geography (e.g., jurisdictional size), demography (e.g., population), and community resources (e.g., availability of health and social services), affect the ability for MCRTs to complete program activities, program outcomes, and the mechanisms behind achieving these outcomes. Additionally, structural components of the program, such as adequate staffing, program funding, and policies and procedures also impact MCRT operations and outcomes. For instance, if there are staffing issues or high turnover, not only within the program but also in the wider health and social service sector in the community, it may affect the ability of the program to build strong partnerships.

To summarize, while the literature has captured many of the outcomes of MCRTs, the *mechanisms* behind achieving these outcomes are largely unknown. This is to say, past evaluations are limited because they have been outcome-focused (Shapiro et al., 2015). Thus, there is a need for more research that focuses on the critical program components that contribute to intended MCRT outcomes (i.e., ‘secret sauce’; Kirst et al., 2015; Pincus, 2017). Frameworks that focus on aspects of MCRT functioning beyond outcomes, such as the Donabedian model, described below, can assist to fill this gap.

Some research has posited key elements that contribute to MCRT success, such as collaborative planning and implementation with partner agencies and other community organizations (Kirst et al., 2015; Reuland, 2010). However, these critical components remain largely hypothetical and need to be empirically informed. Shapiro et al. (2015) suggested that

future case studies examine the structure/components and mechanisms of MCRTs. Moreover, Brown Cross et al. (2014) called for research on identifying aspects of crisis response teams that contribute to success. Few studies of MCRTs or co-response models currently include rigorous analysis and identification of structural requirements or documentation of successful implementation processes (Bailey et al., 2018; Kirst et al., 2015). Therefore, a holistic understanding of MCRTs, which includes the context and structure of the program, the processes of the program (e.g., activities, partnerships, and connections with community-based resources), *and* a breath of program outcomes, is needed to understand how MCRT use in diverse communities and contexts can be optimized.

1.4.3. Common Challenges to Successful Implementation of MCRTs

Despite the numerous benefits evident, there are common challenges in implementing MCRTs that prevent these programs from optimally functioning. In a scoping review conducted by Winters et al. (2015) on interprofessional collaboration in mental health crisis response systems (not limited to MCRTs), the authors found that common challenges are a lack of resources – both financial and human resources, power differences between professions, lack of sufficient training, and time constraints. Specifically, studies conducted on MCRTs have revealed challenges such as understaffing (Bailey et al., 2018; Koziarski et al., 2020; Lamanna et al., 2015; Thompson, 2021), issues regarding hours of operation (Koziarski et al., 2020; Lamanna et al., 2015), and a lack of financial resources (Thompson, 2021). Of particular note, Steadman et al. (2000) noted that the lack of resources can prevent services from operating as intended and may result in other police officers avoiding reaching out to MCRTs for assistance.

Other challenges of MCRT implementation include role clarity and the need for cross-sector training for team members on partner profession (Kirst et al., 2015). Additionally, a lack

of community services in which clients can be referred to poses an issue for MCRTs (Bailey et al., 2018; Koziarski et al., 2020). Moreover, police organizations may experience issues regarding internal clarity surrounding the mandate of MCRTs (e.g., when it is appropriate to call them, what it is they do; Lamanna et al., 2015). Lastly, a lack of awareness in the community of the program may hinder MCRT functions (i.e., clients may be reluctant to work with the team if they do not understand what the program is or clients may inappropriately request team services if they do not understand program mandate; Thompson, 2021).

Thus, the challenges that MCRTs face are varied, extending from resources and structure (e.g., lack of resources or limited hours of operation) to process, such as role clarity and clarity around the program mandate to other areas of the police organization. Therefore, the solutions for each community to improving MCRT implementation and function will also vary. Beyond increasing funding or improving staffing, procedural issues must also be addressed.

Kirst et al. (2015) suggested three main ways to help mitigate some of the common procedural challenges to implementing MCRTs. These include relationship-building between hospital partners and MCRT; communication with other police divisions, program partners, and the community regarding the program's mandate; and comprehensive cross-sector training, including an explanation of the role and skills of each profession, for all individuals involved with the program. While interprofessional collaboration often comes with unique challenges, Winters et al. (2015) highlight that there is plenty of support in the use of interprofessional collaboration for mental health crisis response.

1.4.3.1 Special Considerations for Rural and Smaller Communities. As previously established, community characteristics and contextual factors are essential in the implementation

of MCRTs. The following paragraphs discuss specific contextual factors that likely affect MCRT design and implementation in rural, smaller, or geographically isolated communities.

Crisis response teams in rural or isolated areas face unique challenges; therefore, the successful implementation looks different in these areas (Skubby et al., 2013). Funding, issues with coverage, and a lack of community resources for PLMI pose challenges in implementing MCRTs in small communities (Thompson, 2021). Moreover, in more rural areas, MCRTs may service a larger geographical jurisdiction and thus take longer to travel to calls for service (Koziarski et al., 2021; Semple et al., 2021). The development and research on crisis response models have tended to occur in urban settings (see review by Ghelani et al., 2022; all but one study occur in urban contexts). Thus, the crisis response model employed must not only be a good fit for rural areas but must also be adapted to meet the community's needs (Chamberlain, 2006, as cited in Skubby et al., 2013). Shapiro et al. (2015) recommended that practitioners "consider how best to balance standardization of service delivery in a geographical area with optimal fit to the local context" (p. 617).

Semple et al. (2021) conducted an evaluation of a MCRT in a county that consisted of suburban and rural land, with a large portion of this county being rural land. Despite differences in the study context (rural and suburban) and context of the cities in which MCRTs have been developed and researched (mostly urban), authors found that there was a significant difference between the MCRT and general patrol in time spent on crisis-related calls, leading to a reduction in costs, significant increases in community resource referrals and significant decreases in involuntary apprehensions from pre- to post-implementation, similar to the findings of studies conducted in bigger urban contexts. Thus, these findings suggest that MCRTs can be adapted to be appropriate for different contexts, but more evidence is needed to support the implementation

of MCRTs in different settings. Similarly, not all smaller and rural communities are alike. Thus, it is important to examine the community characteristics as previously mentioned, such as community resources, population, and geographical features, in the implementation of MCRTs in less populous rural and northern areas.

1.5. Donabedian Framework for Assessing Quality of Healthcare

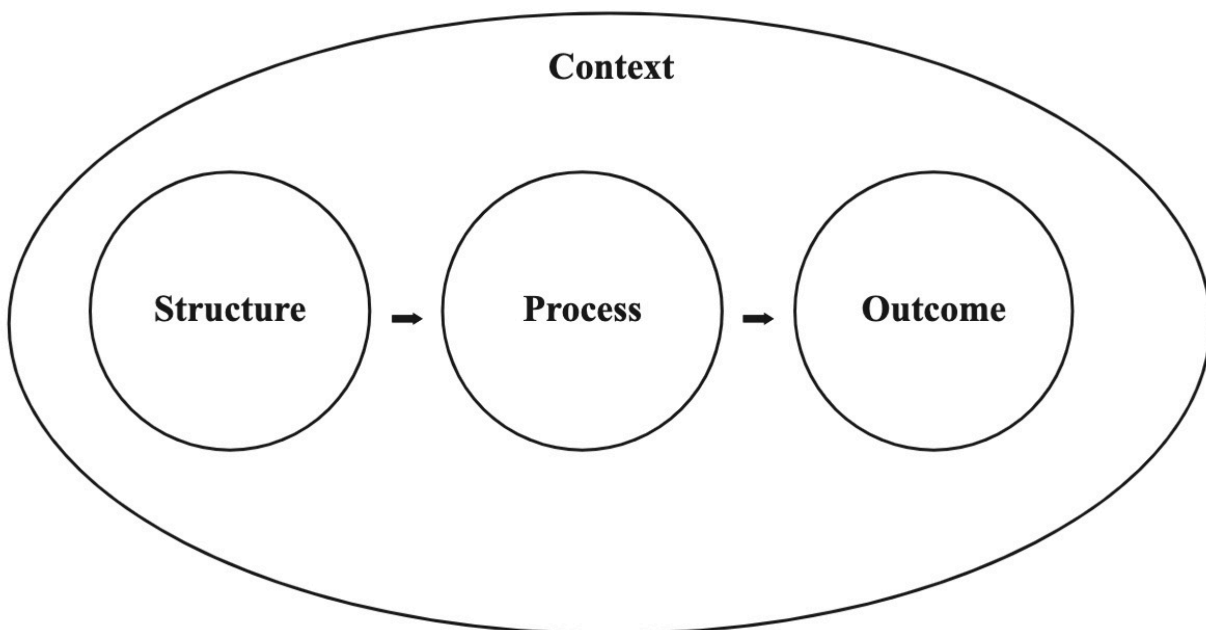
Donabedian (1966, 1989) presented a framework for assessing the quality of care. In this model, also referred to as the Structure Process Outcome (SPO) model, the underlying assumption is that healthcare quality can be assessed by examining structure, process, and outcome. *Structure* refers to factors that influence the context of the program. This can be material resources, human resources, organizational structure, or procedures. *Process* refers to how activities are being carried out. This includes if the program runs as intended, if procedures are followed, and if employees know where to go if they notice that the program is not operating as intended. Lastly, *outcome* refers to how the care affects its intended population and the community around it. This includes client satisfaction and outcomes, client knowledge, effectiveness of program, and if the program serves the intended audience in its intended way. A benefit of this framework is that it looks at the structure and process, as well as outcomes, which addresses the gap in MCRT research in which most evaluations have been outcome focused.

Klokkerud et al. (2012) and Mahdavi et al. (2018) have extended this model to include *context*, which refers to regional contexts, such as geography or demography that can impact program outcomes. Including an emphasis on context can be useful in understanding how

programs operate in different locations. Figure 2 displays a diagram of how an extended Donabedian model can be used to understand healthcare quality.

Figure 2

An Extended Donabedian Model for Evaluating Healthcare Quality and Program



1.5.1. Past Applications

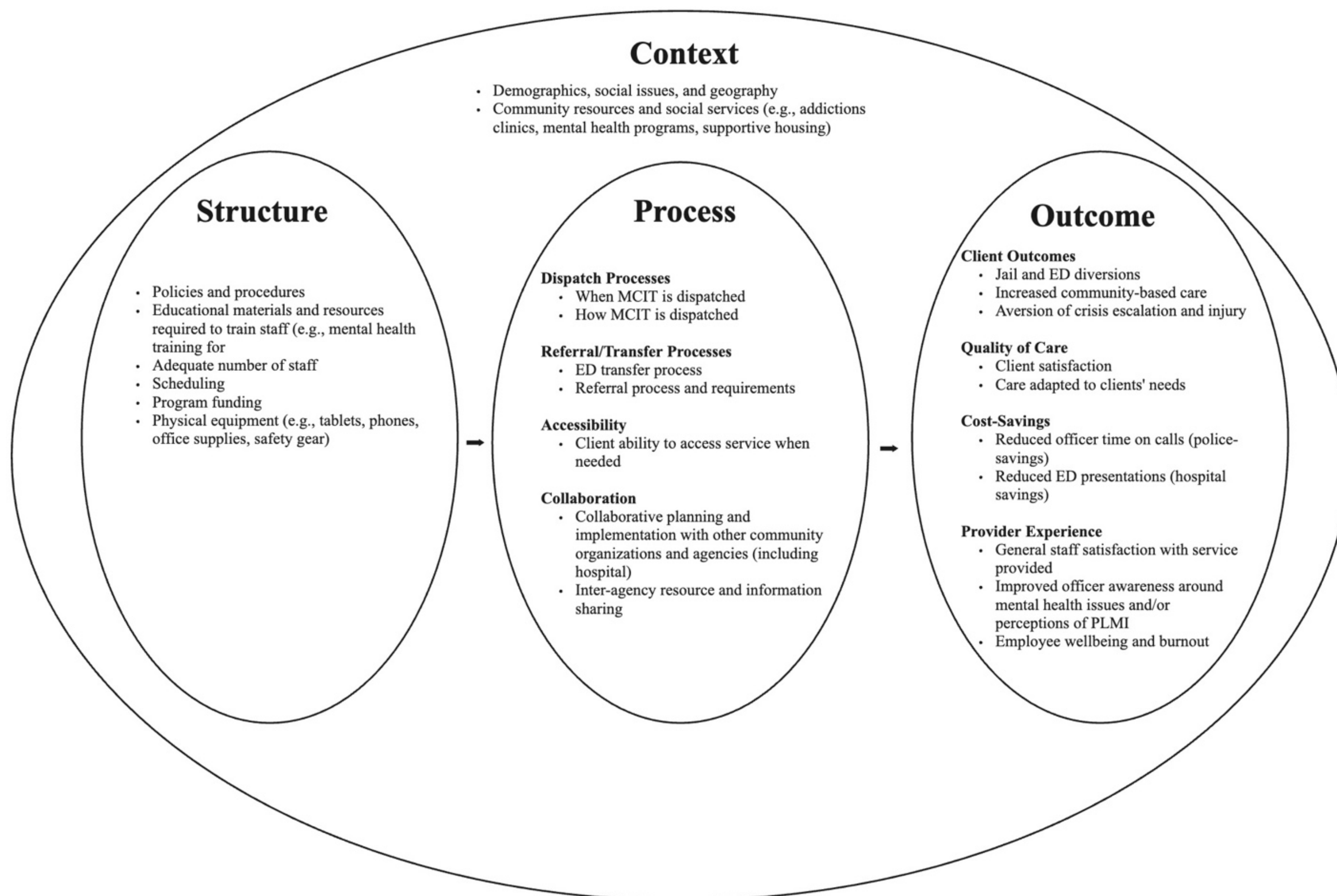
This model has been applied in a wide variety of healthcare settings to assess or improve quality of care, including emergency departments (Alessandrini et al., 2011; Binder et al., 2021), community pharmacies (Rai & Wood, 2018), clinics (Patry et al., 2021), and online settings

(Tossaint-Schoenmakers et al., 2021), as well as an interdisciplinary educational program on health sciences (Botma & Labuschagne, 2019). Moreover, this framework has been applied to improve quality of care in a wide variety of populations, such as individuals with serious mental disorders and co-occurring disorders (Kilbourne et al., 2010; Scharf et al., 2014), individuals with spinal cord injuries (Qu et al., 2010), and individuals with ulcers (Amir et al., 2017; Patry et al., 2021). The Donabedian model has been employed for quantitative and qualitative methods alike. Furthermore, this model has been extended to include patient characteristics (Amir Hamzah et al., 2019; Patry et al., 2021; Qu et al., 2010) and cost analysis (Quality-Cost Framework; Nuckols et al., 2013). Overall, this is a well-established and well-used framework that is suitable for application in various healthcare settings with a multitude of populations (Ayanian & Markel, 2016).

Despite the demonstrated efficacy of this framework, it has yet to be applied to MCRTs. Indeed, much of the literature does not use a theoretical framework to understand MCRT functioning. Therefore, I propose a novel application of this framework in evaluating MCRTs. Figure 3 is an application of an extended Donabedian model to describe the expected functioning of an MCRT.

Figure 3

A Hypothesized Application of an Extended Donabedian Model to an MCRT



1.6. The Current Study

My thesis will work to address the aforementioned gaps in the literature, including a lack of knowledge about the implementation of MCRTs in rural and northern communities and the tendency for evaluations to be outcome focused. More specifically, the aim of my thesis is to explore how MCRT models fit within unique community contexts through examining the structure, function, and outcomes of a MCRT implemented in Northern Ontario using an extended Donabedian model. With this knowledge, I will likely be able to draw conclusions about the components of the program that contribute to success and how this is manifested in a local context.

1.6.1. The Unique Context of Thunder Bay

Located north of Lake Superior, the community of Thunder Bay is a unique and novel context for the evaluation of a MCRT to take place. According to the 2021 Census, the population of Thunder Bay is 108,843 (Statistics Canada, 2022a). Furthermore, Thunder Bay is an isolated city, far from other major cities. Thus, Thunder Bay is a hub providing most health, education, and social services for surrounding communities in Northwestern Ontario.

The following section will examine some of the contextual factors that may affect the implementation and operation of an MCRT in Thunder Bay. Some of these factors were chosen as they are the proposed community characteristics by Reuland (2010), whilst others are speculated to be important contextual factors that differentiate Thunder Bay from other cities and/or impact MCRT implementation or operation. These factors have been sorted into two overarching categories: (1) demographics, social issues, and geography, and (2) community resources.

1.6.1.1. Demographics, Social Issues, and Geography. While this subsection is not exhaustive, it does attempt to describe the demography of Thunder Bay, some of the social issues experienced by the population, how interconnected these issues are within the population, and the unique geography of Thunder Bay. These factors affect the implementation and operation of an MCRT in this context and emphasize why a MCRT must be adapted to meet local contexts.

Thunder Bay has a median household income of approximately $69,000, which is $10,500 lower than that of the province of Ontario (Statistics Canada, 2022a). A 2019 report found that approximately 15% of the population earns less than the Low-Income Measure (about $24,000; Krysowaty, 2019). Income is a social determinant of health, which affects other determinants such as housing, education, food access, health care, and social inclusion (Lakehead Social Planning Council, 2018). Thus, we see the issue of poverty as interconnected to many of the other social issues in Thunder Bay.

The opioid epidemic in Thunder Bay is particularly widespread, with the Thunder Bay District having the highest opioid death total per capita in 2021, of all health units in Ontario (Turner, 2021). Thus, an MCRT in Thunder Bay needs to focus on addiction crisis and must learn to work with addiction services in the city to connect individuals to appropriate care. These services will be reviewed in the following subsection.

Additionally, homelessness is prevalent in Thunder Bay y. The 2021 Point-In-Time (PIT) Count, which captures the number of homeless individuals across the Thunder Bay District, during a given 24-hour period, identified 221 homeless individuals (Lakehead Social Planning Council et al., 2021). While this is substantially lower than the 487 responses received in the 2018 PIT count, these results were likely affected by the COVID-19 pandemic and other data collection issues, including speculated increased stigma against individuals experiencing

homelessness at the time of capture (Kaufman, 2022). A by-name list collected by the Thunder Bay District Social Services Administration Board, which includes 693 registered people, is likely to be more accurate (Kaufman, 2022).

Of those individuals captured in the 2021 PIT count, 58% identified requiring help with addictions and/or substance use issues, 53% reported having at least one mental health condition, 28% reported spending time in the hospital in the past year, and 16% reported visiting the emergency department (Lakehead Social Planning Council et al., 2021). Moreover, 39% of respondents had interactions with police and 24% had spent time in prison or jail. Thus, it is evident that many of the individuals experiencing homelessness in Thunder Bay additionally face challenges related to mental health and/or addictions issues.

Additionally, the PIT count revealed only 36% of respondents had lived in Thunder Bay their whole life. Out of the individuals who had moved to the area, 72% had housing before they moved to Thunder Bay. Therefore, there are many individuals who have moved to Thunder Bay, likely away from their supports, and then experience homelessness. This, in turn, may impact their ability to access resources and support, and impact their ability to manage any mental health or addictions concerns before crises occur.

Thunder Bay has a significant Indigenous population (12.8%) compared to Canada as a whole (4.9; Statistics Canada, 2017), with the Fort William First Nations Reserve located directly south of the city. However, census data is likely to underrepresent the number of Indigenous individuals in the city, as many live there on a temporary basis and are not captured in the census data (McNeilly, 2018). Many Indigenous youths from small First Nations communities move to Thunder Bay to receive a high school education since no such facilities are available on northern and remote reserves. These youth are then away from their natural

supports, staying in boarding houses, and introduced into a new and unknown city, much different than their communities (Hope Story, n.d.).

Social issues, such as poverty, homelessness, and mental health and addictions, occur at higher rates in Indigenous individuals compared to the general population. Indigenous persons experience poverty at a higher rate in Thunder Bay, comprising almost 50% of the individuals who earn less than the Low-Income Measure, despite only comprising a significantly lower percentage of the population (Krysowaty, 2019). Moreover, in the 2021 PIT count of individuals experiencing homelessness, 68% of respondents identified as Indigenous (Lakehead Social Planning Council et al., 2021). In a survey of Indigenous individuals in Thunder Bay regarding health care, one in four adult respondents reported that they had unmet health needs in the past 12 months due to lack of trust in health care providers, long waiting lists, and inability to obtain transportation (Anishnawbe Mushkiki, 2020). Additionally, Indigenous persons, on average, experience more mental health and substance use issues than non-Indigenous individuals (Firestone et al., 2015). These issues are situated within larger issues of colonization, residential schools, and institutional racism (McNeilly, 2018). Therefore, there is a higher Indigenous population in Thunder Bay compared to the rest of the province and these individuals are subject to unique and higher rates of social issues and at-risk of mental health crises.

Thunder Bay has an overall crime rate 40% higher than the province (Statistics Canada, 2020). While this is likely a product of the complex social issues faced in Thunder Bay, this may affect the ability of an MCRT to operate optimally, with officers needing to balance responding to crime-related calls, which may be considered higher priority, and mental health-related calls. Additionally, due to Thunder Bay being relatively geographically isolated, organizations in Thunder Bay (e.g., community-based organizations, the hospitals, the police agency) are unable

to call on other organizations in nearby cities, and support smaller Northern communities covering a geographical area the size of France, which may affect the availability of resources and capacity of organizations. Lastly, Thunder Bay is subject to particularly cold winters with heavy snowfall, which is an additional challenge for the homeless population and can affect the ability for MCRTs to respond in winter months (e.g., making it hard to drive at times or attend calls outside in extreme conditions).

1.6.1.2. Community Resources and Social Services. Thunder Bay has one general medical hospital and a rehabilitative hospital, both of which provide mental health services. Only the general medical hospital has an emergency department, thus individuals in mental health crisis who require emergency care must go to the general medical hospital. Moreover, all medical emergencies (including mental health) are seen in one emergency department where they are seen according to assessed priority.

The Thunder Bay Police Service (TBPS) consists of approximately 320 officers (Desmoulins, 2018). In recent years, the proportion of mental health-related calls has skyrocketed, increasing by 237% from 2015 to 2018 (Community Safety and Well-Being Thunder Bay, 2021). In 2020, the TBPS received 50,808 calls for service, 1,802 of which were categorized as ‘mental health’ calls (Thunder Bay Police Service, 2021). TBPS has attempted to address the volume of mental health calls by creating different iterations of MCRTs, addressed in the below section. Several police forces serve surrounding communities, including TBPS, Ontario Provincial Police, and Treaty 3 police, a self-administered Policing entity under the First Nations Policing Program.

Many of the resources in Thunder Bay are not equipped to meet the needs of the community. For example, Statistics Canada data from 2020 revealed there are only two

emergency shelters in Thunder Bay with a total of 59 beds (42 general beds; 17 men's beds), one transitional housing centre with 47 beds, and three women's domestic violence shelters with 62 beds (Statistics Canada, 2022b). These numbers do not account for staffing or pandemic related restrictions, which may further limit capacities. Additionally, there are four addictions centres in Thunder Bay, only one of which that provides medically supported withdrawal management. However, there are long waitlists for individuals seeking treatment (Center for Community Based Research, 2013). The Government of Ontario has recently invested money for the creation of an additional 34 new addictions treatment beds to help mitigate these long waitlists (Government of Ontario, 2022).

Coordinated efforts to address many of these issues are being made by different organizations and steering committees in Thunder Bay. This includes plans to address homelessness, poverty, and addictions (see Lakehead Social Planning Council, 2018, 2019; Thunder Bay Drug Strategy, 2017). Likewise, the Thunder Bay Situation Table brings together a variety of front-line service providers to help individuals who are at immediate risk of harm or victimization (Canadian Mental Health Association Thunder Bay Division, n.d.-b). Thus, we see some mental health and addictions resources available in Thunder Bay, both in hospital and community-based organizations, and efforts to improve these services. However, the current resources in Thunder Bay to deal with mental health and addictions are not adequate to address the volume of these issues or to at least prevent these issues from escalating to crises, evident through generally long wait times for health services, long wait times for housing services, and reported concerns from residents regarding mental health and addictions in Thunder Bay (Lakehead Social Planning Council, 2018; Ontario Medical Association, 2022).

Lastly, the resources available in Thunder Bay often do not provide equitable care for the large Indigenous population that they serve. Local media has documented complicated relations between the TBPS, the healthcare system, and the Indigenous community, involving colonization, issues of racism, unfair treatment by officials, and sudden death and missing persons cases (Anishnawbe Mushkiki, 2020; McNeilly, 2018). In a survey of Indigenous peoples regarding health care experiences, 39% of respondents reported unfair treatment by healthcare professionals due to their Indigenous identity (Anishnawbe Mushkiki, 2020). Efforts are being made by both the TBPS and local hospitals to improve services provided to Indigenous individuals (Diaczuk, 2021; Thunder Bay Police Service, n.d.). Moreover, there are organizations that specifically provide care to Indigenous individuals in the community.

In short, Thunder Bay is a unique community with important differences from many of the urban contexts in which past MCRT evaluation studies have taken place. The city has unique challenges compared to larger urban cities, in addition to fewer resources, community support programs, and healthcare providers, which may pose a problem for MCRTs when referring clients to other resources. However, the smaller size of the community may also help facilitate relationship-building between IMPACT team members and clients, especially frequent clients. While such a unique context may hinder the transferability of these results to other communities, this may help highlight how different components of the program contribute to implementation in a diverse context, answering the calls of Kirst et al. (2015) and Shapiro et al. (2015).

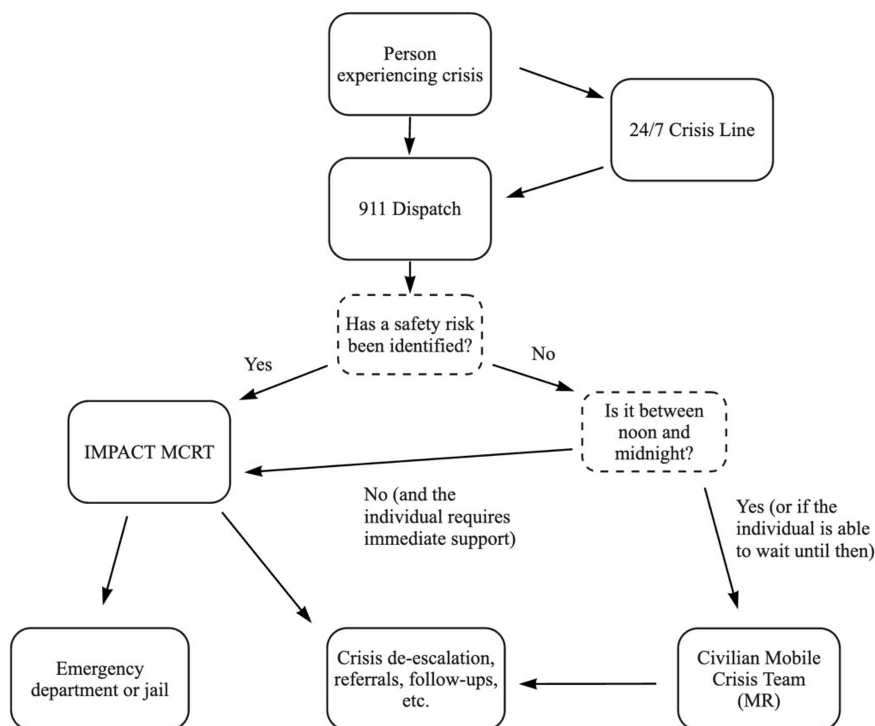
1.7. Current Crisis Response in Thunder Bay

There is a three-pronged approach to primary crisis response in the city of Thunder Bay (see Figure 4). When an individual is experiencing crisis, there is a 24/7 crisis line that services all of Northwestern Ontario that they may call. This service aims to mitigate risks, de-escalate

crisis, and connect individuals with the proper community-based resources (Canadian Mental Health Association Thunder Bay Division, n.d.-a). The crisis response worker uses risk assessment tools to determine if the call should be triaged to another form of crisis response or can be resolved over the phone. If it is determined that the caller needs more crisis response support, the crisis response worker will connect with 911 who dispatches the mobile crisis team (referred to as MR), if available, or the Integrated Mobile Police Assessment Crisis Team (IMPACT). Additionally, if an individual experiencing crisis calls 911, dispatch may contact MR or IMPACT to respond to the call.

Figure 4

Pathways to Service for an Individual Experiencing Crisis in Thunder Bay



Note. This figure does not include traditional police response units who may respond if crisis services are not available. Additionally, MR may call IMPACT or a police unit if the security threat escalates.

The non-police mobile crisis team consists of two crisis workers who de-escalate crisis and provide support and referrals to individuals experiencing crisis (Canadian Mental Health Association Thunder Bay Division, n.d.-a). This program operates seven days a week from noon to midnight. MR responds to crisis calls where an immediate safety risk has not been identified. If a call occurs outside of MR hours of operation and the individual cannot wait for assistance until then or an immediate safety threat has been identified, calls will be triaged to the IMPACT program (described in detail in the next section). In conclusion, the city of Thunder Bay mental-health crisis response consists of the 24/7 crisis line, MR team, and IMPACT program.

1.7.1. The IMPACT Program

Launched on January 1st, 2021, the IMPACT program runs 24/7 with one police-mental health worker team on the road in partnership with the CMHA-TB, TBPS, and Thunder Bay Regional Health Sciences Centre – Emergency Department (TRHSC-ED). This program aims to assist individuals experiencing mental health crises and direct them to the most appropriate services, including referrals to community supports, resulting in emergency department diversions. The intended full complement of this staff consists of four full-time, two part-time, and two casual mental health workers. The IMPACT team uses police vehicles to respond to mental health crisis calls identified by police dispatch, the 24/7 CMHA crisis phone line, community partner referrals, or the CMHA-TB mobile crisis response teams. Table 3 displays the IMPACT program characteristics.

Table 3

Summary of IMPACT Program Characteristics

Characteristic	Operationalization
Hours of operation	24/7
Mental health professional	Trained crisis worker with a degree or diploma in health and human services
Officer and crisis worker appearance	Officer is in police uniform, crisis worker wears vest marked ‘crisis worker’
Vehicle	Marked police car
Method of referral	Primarily 911 dispatch, however, referrals may come through the crisis line
Officer training	40-hour CIT training

The emergence of the IMPACT program occurred after a previous MCRT, the Joint Mobile Crisis Response Team, was shown to be highly successful. Originally started in 2018, this program consisted of two crisis workers who were dispatched to police mental health calls for assistance (Palmer, 2019). The benefits of this program included reduced police time in the emergency department and an estimated savings of $12,500 - $20,500 in police funds, ultimately with this program exceeding its service targets (Hawkins et al., 2019). However, limitations of this program included limited service hours, with 19% of calls falling outside of service hours, and limited resources, with JMCRT crisis workers unable to respond to 5% calls because they were too busy.

The new IMPACT service model seeks to enhance and expand the services previously provided by the JMCRT. Additionally, the current MR team in Thunder Bay continues these services. However, they also may respond to calls without the police present. The changes in crisis response models have been prompted largely due to funding availability. In 2018 when the JMCRT was conceptualized, the project intended to consist of a model identical to the IMPACT

program, but funding did not allow for this (Palmer, 2019). Therefore, the two-crisis worker model emerged so that the project could operate within its funding parameters. After two years of the JMCRT model, CMHA and TBPS were able to secure more funding to realize their original plan of a crisis worker-police officer team. In addition to this, CMHA was still able to continue the mobile crisis team consisting of two crisis workers, which may avoid police contact for individuals experiencing mental health crisis. Thus, this is a practical example how funding parameters affect how mobile crisis response operates in given contexts.

Communities may face pressure to structure their mental health crisis response in a certain way due to funding limitations and pressure from funders that is not consistent with their identified needs or not necessarily the best fit for their context. While the JCMRT displayed promising results to be a good fit for the community of Thunder Bay, the current IMPACT model has yet to be evaluated.

1.8. Objectives

My thesis aims to explore how MCRT models fit within unique community contexts by examining the context, structure, function, and outcomes of an MCRT implemented in Northern Ontario. Specifically, I aim to describe how the IMPACT program operates in the community of Thunder Bay, given its unique characteristics and needs. Using an extended Donabedian evaluation framework (Donabedian, 1966, 1989), I will explicate the necessary structures and processes of the IMPACT model in relation to the community context and how this fit may impact service quality, ability to achieve intended outcomes, client satisfaction with care, and provider experience. The rationale for using this framework is that it allows for the examination of the program context, structure, process, and outcomes, thus creating a rich understanding of the IMPACT program's functioning and the overall quality of care that it provides. Moreover, I

aim to identify the critical components that contribute to any success in MCRT implementation, functioning, and outcomes locally and potentially in other settings.

My thesis provides a novel application of the Donabedian model to MCRTs. Furthermore, this research project addresses the implementation evaluation gap in the MCRT literature. The research findings will provide feedback to the IMPACT programs for possible improvements. Furthermore, findings can be used to assist other communities in adapting MCRT models to best fit their unique context.

1.9. Research Questions

Given the previously stated objectives, the overarching research question was as follows: How does the IMPACT program function in the community and context of Thunder Bay, given its population, culture, and complementary community resources?

My specific research questions were:

1. What contextual factors affect the implementation and operation of the IMPACT program in Thunder Bay? **[Context]**
    a. To what extent are there appropriate, complementary community resources to support an IMPACT model that relies on referrals to low-barrier community care?
2. How is the program resourced in terms of staff, space, finances, policies, and procedures? **[Structure]**
    a. How sufficient are these resources for the program to function as intended?
3. How is the IMPACT program functioning? **[Process]**
    a. How is the dispatch process operating?
    b. Are there any barriers or facilitators to call resolution? (e.g., in emergency department presentations or referrals to community-based resources)

   c. What is the perceived accessibility of the services provided? (e.g., potential service gaps or ability for individuals to access the service when needed)
   d. How do the different agencies and community-based organizations collaborate to implement the IMPACT program?
4. How is the IMPACT program achieving or failing to achieve its aims? **[Outcome]**
   a. How is the program achieving (or failing to achieve) intended client outcomes?
   b. What are staff and client perceptions of the quality of care provided by the IMPACT team?
   c. What are perceptions of the efficiency of the program? (i.e., use of resources and resource saving compared to traditional models)
   d. What is the experience of service providers? (e.g., satisfaction with service provided, job sustainability or burnout)

2. Methods

2.1. Research Design

I used an extended Donabedian (structure-process-outcome-context) framework to describe the IMPACT program and how it operates in the city of Thunder Bay with the goal of extracting information that similar communities with similar and different features can use to ascertain the fit between the program and their context and needs. I used a single-case observational qualitative approach that synthesizes several data sources to populate the Donabedian model including (1) semi-structured interviews (n = 13); (2) 'ride along' site visits; and (3) review and summary of program and agency documents (e.g., policies, job postings, annual reports). Attempts at obtaining service user perspectives via client satisfaction surveys were made, but unsuccessful. As this Masters' thesis project is part of a larger research contract,

partner agencies were consulted throughout the research design process (e.g., initial research design and survey questions).

2.2. Participants

A total of *N*=23 individuals participated in this study. The following section details who the participants were for each data source. Table 4 details the intended and achieved sample sizes for each data source.

Table 4

Intended and Achieved Sample Sizes

Data Source and Participant Type	Intended *n*	Achieved *n*
Interviews (Total)	**18-24**	**13**
Frontline (Total)	*12-18*	*7*
Police	4-6	3
Crisis worker	4-6	3
Hospital staff	4-6	1
Leadership (Total)	*6*	*6*
Police agency	2	2
Mental health agency	2	2
Hospital	2	2
Ride Along Site Visits	**4**	**9**
Client Satisfaction Survey	**100**	**2**
Total	**122-128**	**23**

2.2.1. IMPACT Staff

Approximately two administrators were recruited from each partner agency (mental health agency, police agency, and hospital; *n* = 6). Three frontline IMPACT staff were recruited from both the mental health agency and police agency. One frontline worker was recruited from hospital. The study details, along with an invitation to participate, was distributed to leadership

staff at each of the partner organizations, who then contacted frontline staff asking for volunteers. Several attempts for recruitment were made at each organization. Out of the 17 individuals who contacted researchers to participate, *n*=13 successfully participated. Two individuals were unresponsive in scheduling interviews, one did not attend their interview, and one did not have sufficient experience with the IMPACT team to be able to participate in the interview. Recruitment abilities were limited due to the small population size and impacted sample size. No incentive was provided as participants were asked about their activities in their workplace. Nine frontline staff (*n*=4 crisis workers; *n*=5 police officers) participated in ride-along site visits.

2.2.2. IMPACT Service Users

For the client satisfaction surveys, participants were *n*=2 IMPACT service users. Service users were adults (18+ years of age) who reported on their own experience with the service.

Recruitment efforts took several iterations. At first, participants were recruited via a postcard given to them by the IMPACT worker after completing a service call. The postcard included a QR code, web link, and telephone number to call to complete the survey using interactive voice response technology. Alternatively, paper copies of the satisfaction survey were offered to clients with an envelope including a return address for the researchers' lab and a postage stamp. Due to issues with staff distribution of postcards, the research team met with leadership and frontline staff from the mental health and police agency. After 10 weeks of no survey responses, survey recruitment pivoted to stickers that contained survey information that were placed on the back of crisis phone cards that the team handed out to service users due to the recommendations of frontline staff.

After an additional 9 weeks of this recruitment effort, there were only two survey responses. At that time point, our research team met with leadership from the mental health agency to discuss possible solutions, including interviews with service users. However, due to privacy concerns and ethical considerations regarding approaching individuals for feedback at crisis resolution, our team and community partners collectively reached the decision to not take any additional attempts to recruit more service user participants. In the limitations section, I further discuss complications regarding obtaining service user perspectives for MCRTs, who often serve individuals in acute mental health crises.

After completion of the survey, service users were offered a $5 gift card to a local coffee shop (e-card by email or physical card delivered through postal mail).

2.3. Data Sources

The following section describes the data collected for the study. Table 5 outlines which data sources were used to answer which questions.

Table 5

Research Questions and Data Sources that Address These Questions

Extended Donabedian Model domain	Question	Document review	Interview	Site visit	Satisfaction Survey
Context	1. What contextual factors affect the implementation and operation of the IMPACT program in Thunder Bay?		X		X
	a. To what extent are there appropriate, complementary community resources to support an IMPACT model that relies on referrals to low-barrier community care?		X		
Structure	2. How is the program resourced in terms of staff, space, finances, policies and procedures?	X	X	X	
	a. How sufficient are these resources for the program to function as intended?		X	X	
Process	3. How is the IMPACT program functioning?	X	X	X	
	a. How is the dispatch process operating?		X	X	
	b. Are there any barriers or facilitators to call resolution? (e.g., in emergency department presentations or referrals to community-based resources)	X	X	X	
	c. What is the perceived accessibility of the services provided? (e.g., potential service gaps or ability for individuals access the service when needed)	X	X		
	d. How do the different agencies and community-based organizations collaborate to implement the IMPACT program?	X	X		

Table 5 (Continued)

Extended Donabedian Model domain	Question	Document review	Interview	Site visit	Satisfaction Survey
Outcome	4. How is the IMPACT program achieving or failing to achieve its aims?	X	X	X	X
	a. How is the program achieving (or failing to achieve) intended client outcomes?	X	X	X	X
	b. What are staff and client perceptions of the quality of care provided by the IMPACT team?		X		X
	c. What are perceptions of the efficiency of the program? (i.e., use of resources and resource-saving compared to traditional models)	X	X		
	d. What is the experience of service providers? (e.g., satisfaction with service provided, job sustainability or burnout)	X	X		

2.3.1. Interviews

Interviews followed a semi-structured format. There were interview guides for police frontline staff, crisis workers, hospital staff, and leadership staff (see Appendix A, B, C, and D). As guided by the Donabedian framework (1966, 1989), these interviews inquired about the structure (e.g., resources or policies), process (e.g., typical operations), intended outcomes (e.g., reduced emergency department presentations), and observed outcomes (e.g., referrals to community-based resources or client relations) of the IMPACT project and contextual factors that may affect these components. Interviews informed all research questions.

2.3.2. Ride Along Site Visits

Data was collected via queries from the researcher. Queries followed a matrix of pre-determined site visit elements that aligned with the structure-process-outcome-context framework guiding this research (see Appendix E). There was also a section of the matrix for unscripted observations that may arise. Matrix analysis is a well-established practice in implementation evaluations (Averill, 2002). Elements were also informed by knowledge of the program from past work with IMPACT by our research team and were consistent with best practices for implementation evaluation site visit standards (Kenney et al., 2023). Answers were recorded by pen and paper, then transcribed to a digital format for data analysis. Ride along site visit data supported research questions 2, 3, 3b, 3c, 3d, 4, 4a, 4c, and 4d.

2.3.3. Client Satisfaction Survey

To remain consistent with the current evaluation tools used at CMHA-TB for collecting customer satisfaction data (and other organizations around the province), select questions from the Ontario Perceptions of Care tool (Centre for Addiction and Mental Health, 2019) were used with permissions and consultation of the mental health agency in charge of IMPACT (registered

users of this tool). This tool is a required assessment tool for mental health and addictions programs funded by Ontario’s Ministry of Health (Centre for Addiction and Mental Health, 2019). Moreover, this tool allows agencies to generate reports and compare their performance to similar service agencies, facilitates performance monitoring and program evaluation, and enables data to be aggregated and analyzed at the regional and provincial levels. Furthermore, the Mobile Crisis Response Teams Provincial Working Group (2023a) recommends the Ontario Perceptions of Care tool for crisis is to assess client perceptions of quality of care for MCRTs.

The survey consisted of eight questions selected from the Ontario Perceptions of Care tool to briefly assess client perceptions of the care received from the IMPACT program. All answers were rated on a 4-point Likert scale ranging from strongly disagree to strongly agree with an additional ‘not applicable’ option, prescribed by the authors of this tool. Appendix F contains the questions used in this survey. These questions inquired about the quality of services provided and the program's ability to connect service users to outside supports. Moreover, the survey consisted of four sections: inquiries about the overall program (four questions), service provided by the crisis workers (two questions), service provided by police officers (two questions), and an open-ended question. The purpose of this survey is to obtain client perspectives on the IMPACT program, contributing to data around IMPACT outcomes. The purpose of using a survey to obtain client feedback, rather than interviews or other qualitative methods, is to aid in recruitment, gain more client perspectives than possible with qualitative research, and protect client anonymity. Data from the client satisfaction survey was intended to support research questions 1, 4, 4a, and 4b.

2.3.4. Program and Agency Documents

Program and agency documents included CIT training curriculum, job postings, and reports made by the research team that were commissioned by the mental health agency. This included progress reports (e.g., Scharf et al., 2022) and a quality improvement focus group report (Zitars & Scharf, 2022). Data from the program and agency documents supported research questions 2, 3, 3a-3d, 4, and 4a-4d.

2.4. Data Collection Procedures

The following section details the collection process for each data source.

2.4.1. Interviews

All interviews were conducted on Zoom. Interviews followed a semi-structured interview guide and lasted an average of 55 minutes (SD=20.83). All audio recordings were transcribed using OtterAI and then reviewed and corrected.

2.4.2. Ride Along Site Visits

Ride along site visits occurred three times; one ride along visit was during the day shift and two were during the night shift. These visits were approximately four hours in length. When safe and appropriate to do so, I observed and queried IMPACT activities and processes.

2.4.3. Client Satisfaction Surveys

Before distribution took place, I attended a CMHA IMPACT worker staff meeting, detailed the project, the purpose of the client satisfaction surveys, how and when to distribute survey postcards to clients, and answered questions. As mentioned above, our team attended several meetings with mental health agency and police leadership and frontline workers to attempt to improve recruitment efforts. Following these meetings, the form of recruitment materials changed from a postcard to a sticker attached to the back of a crisis phone line card.

Survey postcards and stickers contained information about the client satisfaction survey, including a link, QR code, and phone number, to complete the survey. During the data collection period, IMPACT workers distributed the postcard or card containing the sticker to the client at the end of each contact, when the client is no longer in crisis. The survey took less than five minutes to complete. Individuals were able to complete these surveys at their own convenience either through an online survey, hosted on Survey Monkey, or on the telephone using the interactive voice response survey software, engageSPARK. No participants opted to respond by telephone.

2.4.4. Program and Agency Documents

Program and agency documents were collected from partner agencies or the research team. Specifically, this included program statistics, a job posting for the crisis worker position, annual reports, and grant applications.

2.5. Data Analysis

Originally, this project was planned to have qualitative and quantitative analyses. However, due to data collection issues with the client satisfaction survey, only qualitative analysis occurred. While the quantitative analysis did not occur, I still describe the planned analysis.

The overall aim of the analysis was to identify the critical components of the MCRT model and how this model is adapted to create fit between the IMPACT program and Thunder Bay's context by examining IMPACT's structure, processes, and outcomes, and to infer transferability to other similar contexts.

2.5.1. Qualitative Analysis

Audio transcriptions from interviews and site visit matrixes were uploaded to and coded in the ATLAS.ti software (version 23). While interview transcriptions contained richer data, the ride-along site visit matrixes were used to collect general themes that arose during the ride along visit or if there were any critical or unexpected components that were present or absent (e.g., the program had adequate supplies, or partners were in agreement regarding feeling equipped to answer calls). Additionally, program and agency documents were incorporated into the analysis to reveal if the documents are consistent with the other qualitative data and the themes drawn from that data. Thematic analysis was used to analyze the interview and site matrix data.

Braun and Clarke's (2006; 2012) framework for thematic analysis was used to systematically identify the major themes and patterns that arose from the interviews and ride-along site visits. Thematic analysis is a widely used approach to interpreting qualitative data (V. Braun & Clarke, 2019). Moreover, this method is praised for being a rigorous and flexible approach to analyze qualitative data (Alhojailan & Ibrahim, 2012), and has been identified as a suitable method for analyzing homogenous populations (Clarke & Braun, 2017). There are six phases in thematic analysis as outlined by Braun and Clarke (2006). The first phase is *familiarization of data*, which involves listening to audio recording, reading, re-reading transcriptions, and noting any initial observations. The next phase is *coding*, which is developing labels and labeling the data to reflect important information relevant to the research questions. The third phase is *searching for themes*, where the researcher examines the codes and constructs themes from the codes. The fourth phase is *reviewing themes*; this is when the researcher reflects upon the themes, begins to define each theme, and how the themes connect to each other. The fifth phase is *defining and naming the themes*, when each theme is thoroughly defined and

analyzed with a suitable name chosen that summarizes the theme. Lastly, the final step is *writing up* the results of the data analysis that provides a clear narrative of the findings and places the findings in the context of the relevant literature.

As this work operates under an extended Donabedian framework, I connected the themes that arose from the data to the structure, process, and outcome of the IMPACT project and its context, illuminating which themes are connected to which aspects of the extended Donabedian framework. From this analysis, key components that contribute to successes or limitations of the program and its fit to community context were revealed. Moreover, I identified prominent themes that arose from the data that may not be captured in specific parts of the extended Donabedian framework. Therefore, this analysis was both deductive (i.e., using the theory to inform possible themes and/or important aspects of the program for its operation) and inductive (i.e., using the data to determine the themes without preconceptions or theories). To address and avoid any assumptions and positioning that may influence the coding and interpretation of the data, I engaged in reflexive practice to identify any assumptions that I may have about the topic (e.g., assumptions about police, the mental health care systems, or people experiencing mental health crises) and life experiences and values that may shape my interpretation of the data, as recommended by Braun and Clarke (2019). My supervisor reviewed the interview transcripts and the themes generated from the qualitative analysis. While I primarily conducted the thematic analysis, Dr. Scharf reviewed and aided in revisions to the themes, and ultimately endorsed the final results.

2.5.2. Client Satisfaction Surveys

Basic descriptive analyses were planned to occur in SPSS (version 26). Means and standard deviations were to be calculated for each respective question and survey section (e.g.,

the overall program, perceptions of police officers' service, and perceptions of the IMPACT workers' service). This analysis was intended to provide a general idea of client perceptions of IMPACT service such as whether the program provided service that is suitable for its context and demography (i.e., do the clients perceive the staff to be sensitive to their cultural needs?) and general outcomes (i.e., is the service doing what it is supposed to from the client's perspective?) to inform how the program is able to be adapted to meet the needs of the community. However, due to the insufficient sample size, this analysis did not occur.

3. Results

I begin with providing my qualitative analysis of project qualitative data, which includes interviews, site visits, and document reviews. Overall, I identified 14 themes and 22 subthemes over four domains. Appendix G contains an overview of all themes, subthemes, and their definitions.

3.1. Demographics

Demographics were collected for all interview participants (*N*=13). The mean age of participants was 44.31 (SD=10.55; Range: 27-60). Ten (76.92%) participants identified as female and three (23.08%) identified as male. Four (30.77%) participants identified as First Nations, Metis, and Inuit, and six (46.15%) identified as a member of an equity-seeking group. Job titles included: constable, staff sergeant, crisis worker, manager, supervisor, registered nurse, and charge nurse. All participants had some post-secondary education (i.e., college diploma, undergraduate degree, or graduate degree). All frontline police and crisis worker staff endorsed receiving specialized training for the IMPACT program. In contrast, leadership did not receive specialized training pertaining to IMPACT.

3.2. Thematic Analysis

The following section details the results of the thematic analysis of the interviews, site visits, and program documents.

3.2.1. Research Question 1: Context

All participants reported that they believed the MCRT model was suitable for Thunder Bay. Within this domain, three themes of *meeting community needs, the Northern context,* and *complimentary community resources* emerged.

3.2.1.1. Meeting Community Needs. Participants largely reported that the IMPACT model was suitable as it met the community's needs in the areas of mental health and addictions services, culturally appropriate and trauma-informed care for a diverse population, housing, solutions for crime and violence, and services tailored for youth. Leadership staff from the mental health and police agencies noted that one way in which the program remains responsive to changing needs is by allowing aspects of the CIT training curriculum to change from year-to-year, based on emergent issues in the community or mentioned gaps in knowledge. Overall, police leadership and all police officer and crisis workers noted the high proportion of social-service calls received by the police agency, making a police-mental health worker team model well-suited to the community needs of Thunder Bay.

> *"80% of our calls are social service and crisis-related, and [so IMPACT] provides a good service to the community in responding to mental health issues, versus just a police response."*
>
> (Police Leadership)

Participants highlighted the diverse population of Thunder Bay, namely the large Indigenous population and many transient individuals from remote-Northern communities who come to receive services in the city, and the corresponding need for culturally appropriate and

trauma-informed approaches. Moreover, participants noted the complicated history and built distrust between Indigenous individuals and the TBPS, thus highlighting the need for softer-facing or civilian-run approaches to crisis care. While participants did not state that IMPACT services were extensively culturally responsive, all participants who mentioned the need for culturally appropriate and trauma-informed approaches endorsed that IMPACT was an improvement from traditional police response.

3.2.1.2. The Northern Context. When discussing the IMPACT team, many participants emphasized its Northern context, noting its geographic isolation, extreme temperatures, regionally limited workforce, and police mandate as relevant. Participants described how Thunder Bay's geographic isolation and its status as a hub for Northwestern Ontario results in few other resources nearby, low or no workforce in neighbouring communities to draw from, and many individuals from other northern communities coming to Thunder Bay for services, further straining local resources, and creating gaps in knowledge about many of the individuals that the team serves (e.g., transient individuals' health history may not be in accessible databases).

> *"We might get [patients come in] from [town an hour away] or you know, the surrounding areas, because they don't have the resources. So, we get an influx into the city…. They don't have social work and all these little communities. So they look to us, who is also short, and they said they want you know, let's send them to Thunder Bay, because maybe they can get seen sooner, but their wait lists are just as long as ours. So it's just not even a Thunder Bay thing. It's our district."*
>
> (Hospital Leadership)

Moreover, the city's extreme cold temperatures were reported to have affected staff equipment needs on the road and during hospital transfers (see also section 3.2.2.2.).

3.2.1.2.1. Workforce. Participants described how workforce issues impacted nearly all aspects of IMPACT program function. This included *how* workforce issues are experienced in the North, namely widespread staffing shortages, the need to prioritize what services are staffed, limited recruitment opportunities, high staff turnover between local organizations, and skilled workforce shortages of multiple kinds.

> *"Thunder Bay is a northern city, we're not able [to commute]… compared to maybe Southern Ontario, where you have closer cities and higher populations that someone might not mind going 45 minutes or an hour travelling. Thunder Bay, we have smaller communities, but we don't have the workforce there..."*
>
> (Mental Health Agency Leadership)

3.2.1.2.2. Police Mandate. Lastly, the Northern context was identified as affecting the types of calls that the police respond to. Participants shared that many social service calls that may not fit under the traditional police safety mandate (e.g., mental health and addictions calls, non-criminal calls for service) because no other appropriate or immediately available services (e.g., crisis respite beds, detoxification centres) are available. Participants discussed this reality as an additional justification as to why an MCRT model is well-suited for Thunder Bay's cultural and geographic context.

> *"We're dealing with big city social issues in a small town with small budgets, you know, so that I think part of it too, is that for, like, I know that in other centres, like I have officers, friends from bigger centres, like [name of urban centre], right? They don't respond to [mental health and addictions issues] … So, IMPACT is the perfect fit for what's happening here in the North."*
>
> (Crisis Worker)

3.2.1.3. Complementary Community Resources. Participants shared mixed perspectives on the degree of community resources available to complement and support the operations of the IMPACT program in Thunder Bay. Largely, participants expressed that there are enough services to enable IMPACT to run, but not optimally. Four sub-themes arose that describe the strengths and limitations of complementary community services in Thunder Bay, including how the breadth and capacity of community services affect IMPACT operations. These subthemes were: *A fair amount, resource accessibility, resource gaps,* and *crisis-specific services.*

3.2.1.3.1. A Fair Amount. First, most participants reported that there are a fair number of community-based services, which enable a program that relies upon low-barrier community resources to operate. Respondents identified shelters, housing programs, detox and addiction programs, walk-in clinics, counselling, and other crisis services. Additionally, community care coordination services that connect vulnerable individuals without established service connections, who may be homeless, and/or have serious mental health and addictions issues and are at elevated risk for harm to themselves or others, such as the local Situation Table and coordinated care outreach, were identified as important resources for the community. However, while these services are present in the community, participants reported issues with the accessibility and capacity of many existing resources, detailed below.

> *"I mean, we do like, don't get me wrong, we have a list of resources. I'm sure you know, know what they are as well, right. So on paper, it looks like we have a lot of options. But when it comes to the reality of it, they're just not available at the time."*
>
> (Crisis Worker)

3.2.1.3.2. *Resource Accessibility.* In terms of resource accessibility, there were three main factors identified as hindering access to services: *hours of operation, resource capacity/waitlists,* and *high-barrier eligibility criteria*. First, lack of alignment between community-based services (e.g., who operated during regular business hours and during the typical work week) and IMPACT (24 hours per day, seven days per week) hindered the ability to make "live" referrals (i.e., warm handoffs) or access the service when needed. However, participants also acknowledged the limitations placed upon organizations with respect to their ability to set hours of operation.

> *"It'd be nice if other community partners had different hours, compared to Monday to Friday, nine to five. Crisis doesn't do that. But I don't [think] that's a barrier. That's just the way it is."*
>
> (Crisis Worker)

Participants explained how the limited hours of operation limited their ability to be able to divert individuals from the hospital or jail.

> *"That's one of the challenges with doing IMPACT, like any 24-hour program, somebody can be super well supported in the community and have all these resources, but it's 3 am on a Saturday night. And you've got to look at all the circumstances, and is this person able to wait until those resources are available? And if not, we might still be having to make decisions based on that person's safety or other people's safety in the moment."*
>
> (Crisis Worker)

One crisis worker shared an example where the limited hours of operation for community-based services hindered their ability to communicate with a particular organization and successfully make referrals.

"We found out that a program, all of us had left verbal voicemails for thinking that was a sufficient referral. None of us ever heard back from them saying that is not sufficient. But when [the crisis office] called to follow up to make sure they got the referral [during business hours] so that they can actually talk to somebody. Their response was just 'Oh, we don't take referrals by phone.'"

(Crisis Worker)

Next, resource capacity and waitlists were identified as barriers to successfully referring clients and accessing community-based services. Participants shared that while there were sufficient service options (i.e., types of care) in the community, the services often lacked the staff or funding required to operate at full capacity, in terms of hours or client load, rendering them unable to accept IMPACT referrals when needed. In particular, eight participants (n=3 leadership; n=5 frontline) identified the medical detox facility being at full capacity when trying to make a referral as a barrier.

"I think we have the [programs/services], it's just if there's the resources are staffed [thus, able to accept clients optimally]… I think that Thunder Bay is very creative and innovative, of how to meet the needs of the community, by stretching their mandates and working in the gray to come together. I think a lot of it is you might be given [funds to run a program]. But how do you run the program if you don't have people to?"

(Mental Health Agency Leadership)

Additionally, participants identified several valuable resources within the community that have had to shut down due to a lack of funding rather than a lack of need.

Indicative of community service capacity, lengthy waitlists posed a massive barrier to accessing care across all sectors. Seven participants mentioned the waitlists for accessing long-

term services, such as treatment programs and counselling. Notably, one hospital leadership identified these waitlists as a potential catalyst for crisis.

> *"Especially with waitlists in city too. [There are] waitlists for everything. For psychiatry, psychology, children's mental health, treatment for addictions, like there's a waitlist for everything, right? So everybody is just… some people are just teetering, and there's going to be a tipping point if you wait long enough, right?"*
>
> (Hospital Leadership)

Lastly, eligibility criteria were identified as reducing resource accessibility. Specifically, participants shared misfits between the requirements for various services and the clientele needing to access services. This was often mentioned regarding the crisis bed criteria or other services that take an abstinence approach to addictions, requiring clients to be sober. One crisis worker shared the need for clients to receive assessments that the team is not equipped to conduct prior to treatment as a barrier to accessing addictions-treatment services.

> *"So sometimes it's frustrating because it's like, this person isn't willing to go through the short-term services. They want to get straight into the program, but they have to get these assessments done first. And so those are more the systemic barriers that are going to exist across the board."*
>
> (Crisis Worker)

3.2.1.3.3. Resource Gaps. In addition to resource accessibility, participants identified resource gaps and areas that require more quantity of services. First, regarding services where there are currently none or only accessible to specific individuals, participants identified the need for crisis facilities, mental health and addictions caseworkers, youth safe-sobering sites, and shelters specifically aimed to support individuals experiencing mental health and addictions.

Regarding the need for more quantity of or lower-barrier services in areas where services are already established, participants identified the need for detox facilities, shelters, crisis beds, primary care providers, residential treatment programs, counselling, and trauma-specific counselling. Moreover, participants emphasized the need for long-term services to help address the root of crises, including counselling and housing.

> *"There are so many [barriers]. Not having access to housing, that's one of the biggest issues. And people who are precariously housed or don't have housing, that winds up being a barrier to a lot of services [in terms of referral requirements, contacting individuals, or helping with stability]."*
>
> (Crisis Worker)

3.2.1.3.4. Crisis-Specific Services. Participants identified the network of Thunder Bay crisis services as critical for the operation of IMPACT. Specifically, the varying levels of crisis severity, including the crisis phone and text line, the civilian-run mobile response team, and the crisis beds, was described as an important mechanism by which IMPACT can respond to higher acuity calls that involved safety and welfare concerns.

> *"It's like that continuum, right? Because not everyone in crisis goes right to an IMPACT level. And it's that assessment of [their needs] right."*
>
> (Mental Health Agency Leadership)

Moreover, several participants described how the crisis continuum of services were all run by the same organization, allowing for resource-sharing and care-coordination, as vital.

> *"It may start with IMPACT… potentially, with the client being set up after discharge, they might be having wellness checks through our crisis phone lines or are offered those supports, or if they need a face to face, they can also have an [civilian-run mobile*

response] visit."

(Mental Health Agency Leadership)

3.2.2. Research Question 2: Structures

The following section details program resources and the perceived sufficiency of these resources. Five themes emerged within this area: *Training, equipment/uniform, space, staffing,* and *policies and procedures.*

3.2.2.1. Training. Participants described the various trainings available to them as vital to the operation of the program. For the IMPACT program, both police officers and crisis workers completed the 40-hour crisis intervention training (CIT). Both agencies funded and organized this training whose trainer works on another MCRT within the province.

Document review of the CIT schedule and curriculum demonstrated that this training included information on the MHA, specific mental health and addictions disorders, trauma and culturally informed care, simulated patients, and pre- and post-testing. The training included presentations from people with lived experience and their families, local community-based organizations, and the hospital. All police and mental health agency staff described the training as something that was complimentary to other past training, education, and work experience. One police leader detailed the value of the training in conjunction with other experience through the following quote:

"So, they get some mental health training there than we do through their career, they get reintroduced to it in different ways. But the CIT training … really allows them to think of other strategies that may have been not due to [potential] training capacity issues, in the amount of time that things have to learn as a new recruit… The CIT training really allows them that dedicated time, to see different perspectives as a result of taking that

training with crisis workers. But it's very focused on those strategies they would utilize in, in real calls."

(Police Leadership)

All police officers and crisis workers described the training as useful and sufficient in addition to past experiences and education. One police officer requested more practical tools (e.g., decision-trees, short risk assessment tools) to assist with understanding the criteria that crisis workers use to assess risk.

Crisis workers received general crisis office training through the mental health agency, completed shadow shifts prior to working on the road, and received situational awareness training through the police agency to assist in any gaps in knowledge regarding safety that would be required as a civilian attending police calls for service. The police agency provided mandatory truth and reconciliation training that provided information on Indigenous culture and relevant issues for both police and crisis workers. Police officers and crisis workers reported seeking out different training opportunities that were relevant to their positions, such as training on developmental disorders, trauma-informed care for frontline workers, and other mental health-specific courses, offered through the mental health agency or free training via online platforms.

3.2.2.2. Equipment/Uniforms. Except for vehicles and police radios which were provided by police, staff equipment was resourced by their respective employing organizations (i.e., equipment for crisis workers was resourced by the mental health agency; police equipment was resourced by the police agency). Frontline staff from the police and mental health agencies noted that their respective databases (i.e., one with justice-related information and the other with mental health information on individuals who had interacted with their services before) allowed them to be better equipped for responding to calls for service by identifying any existing

information on service users (if their name was given), including any prior justice interactions and what mental health or addictions services the individual may or may not be connected with, possible diagnoses and medications, as well as notes from past interactions with the various crisis services that the mental health agency offers, if applicable. Crisis workers reported that cards with information about the crisis line were vital for call resolution, facilitating connections to other services as they were able to write down any other resources the service user might find helpful on the back of the card, and providing the service user with information for the crisis line that they may access to possibly prevent future crises from reaching high acuity. Officers reported that these cards were useful even when they were not IMPACT-assigned and aid in care connections during traditional response. Overall, participants from the police and mental health agency reported that the equipment that they currently had was sufficient for the program to run. Table 6 details the resource sufficiency for different components and the community resources.

Table 6

IMPACT Resource Sufficiency

Component	Degree of Sufficiency		
	Insufficient	Supportive of basic functioning	Supportive of optimal functioning
Training			X
Uniform appearance			X
Vehicles			X
Jacket		X	
Boots		X	
Staffing		X	
Policies and procedures		X	
Office space		X	
Crisis line cards			X
Community-based services		X	

Staff uniforms were a frequent topic of discussion. Leadership described the intentionality that went into creating the crisis workers' uniforms to differentiate them from the police role. Specifically, crisis worker uniforms included a bullet-resistant vest and jackets that clearly says "crisis worker" in a different colour from police.

> *"We want them to be looking unique. But… it was important that they wore a Kevlar vest, in the event, they ended up in a situation that involves a firearm. We made sure that it was unique and not coloured the same as the police officers' vest. So, it says 'crisis worker' in yellow versus police's in white."*
>
> (Police Leadership)

All crisis workers described their uniform, including its suitability for extreme temperatures, as essential for their safety and ability to complete their job. The crisis workers

described their jacket as sufficient for part of the year but needing to wear many different layers underneath their uniform which they paid for out of pocket and reporting that this can get quite costly, particularly for thermal clothing supportive of the extreme cold weather. The crisis workers also described the one-time voucher they received for footwear as insufficient and requiring different pairs of footwear for the winter vs. warmer months. Moreover, participants from both agencies noted how clothing allowances differ for the crisis workers and police and highlighted these disparities as negatively affecting their work.

> *"They're making efforts and I appreciate that. But the officers get an annual budget of a set amount of money for both a winter and a summer pair of shoes. And they get that every single year [compared to one-time]. So, we're working in the same circumstances, often without all of the resources."*
>
> (Crisis Worker)

Lastly, only one member of the police agency commented on officer appearance and expressed interest in the possibility of operating in plainclothes or 'softer' uniforms.

3.2.2.3. Space. Participants reported that crisis workers had some office space within the police station but did not have any physical space within the mental health agency office. However, participants also shared that the crisis worker office had moved serval times due to limited space within the police station. Crisis workers endorsed having office space within the police station was important to do their job.

3.2.2.4. Staffing. Staffing for each position was funded by their respective organization, except for a second crisis worker shift that was added on top of the regular compliment, which was funded through a community safety and well-being grant from the provincial government. *Staffing shortages, staff fit,* and *employee benefits* were common subthemes relevant to staffing.

3.2.2.4.1. Staffing Shortages. Participants reported issues regarding the number of crisis workers. More specifically, both leadership and frontline crisis staff shared that at the time of interviews, they were short one crisis worker position, requiring staff to pick up extra shifts for the 12 PM to 12 AM secondary shift to be fulfilled at times.

> *"So that 12 [AM] to 12 [PM shift] that we have right now, the other staff will pick up. But, we don't have casual staff. So, it would be staff that already working there full-time hours and picking up a shift here and there. We have not had to shut down the program by any means due to lack of resource for staffing."*
>
> (Mental Health Agency Leadership)

However, mental health agency leadership also described the need to balance the number of staff across their programs (e.g., crisis phone and text line, mobile response, crisis beds). Similarly, participants described occasional issues with having IMPACT-trained officers available to ride with mental health worker IMPACT staff, but also described efforts to mitigate this by spreading opportunities to complete the CIT training across the platoons.

3.2.2.4.2. Staff Fit. Participants noted the importance of a 'good fit' for IMPACT-trained police officers and crisis workers. This fit was described in terms of work experience and personality or character traits. All frontline workers described their work experiences as key to their ability to function in their role. This was more greatly emphasized for the crisis worker role, noting that this role may be difficult for new graduates, and educational experience does not guarantee that an individual will succeed in the position. Additionally, participants reported that crisis workers were required to be compassionate, flexible, able to adapt, and able to compartmentalize or cope with highly stressful and possibly dangerous situations. Crisis worker participants suggested allowing an IMPACT officer and crisis worker present at the interview

and providing potential candidates with the opportunity to join a ride-along before interviewing for the position to help maximize the fit between individuals who are hired for the crisis worker position and possibly reduce turnover.

> *"I know lots of people really want to do IMPACT because they think it's so cool. Because people are ill-equipped, I think, because it's not the feel-good provider, right? Like people just want us to make people feel good. That's not what we do. Yeah, I think there's just a little bit of a lack of understanding with what we do. And therefore [there is a lack of understanding of] what a good candidate looks like, and how to follow up with a good candidate."*
>
> (Crisis Worker)

In terms of police in the IMPACT role, participants noted that officers who were compassionate and interested in mental health tended to enjoy the role best.

3.2.2.4.3. Employee Benefits. Frontline staff highlighted employee benefits often regarding mental health support available. While police officers reported having access to unlimited long-term mental health supports, crisis workers reported only having access to short-term counselling through the federal Employee Assistance Program and $500 of therapy covered through their benefits for long-term counselling. However, one crisis worker noted that the limited coverage may prevent individuals in the crisis worker position from accessing mental health services.

3.2.2.5. Policies and Procedures. Respondents described both pros and cons regarding IMPACT policies and procedures for both the police and mental health workers and agencies. When describing the inception of the program, frontline officers and crisis workers reported that they received low levels of guidance and policies, and that this was both challenging and also

serendipitous as it allowed them to shape the program according to their experience and needs. With respect to ongoing operations, frontline officers and crisis workers reported a lack of policies and procedures specific to the IMPACT program as enabling them to provide a better service. Police leadership and frontline staff further explained that while working on IMPACT, they have some flexibility in following police policy to suit the needs of the situation, such as whether or not to require that two officers be present for a hospital transport. A crisis worker similarly explained:

> *"But in a lot of ways, like having not having very in-depth, like policy and procedure manual, it's more conducive to our work, right? Because you're like, well, I need to do this. Oh, but I can't because policy says, you know... Actually, if anything, it allows us to work outside of the box sometimes if we have to."*
>
> (Crisis Worker)

Both representatives of hospital leadership noted the presence of a policy that required individuals to be clinically sober before being assessed by a physician, possibly leading to extended wait times for the IMPACT team at the hospital. However, this was not noted by any frontline staff at any of the organizations, including hospital frontline staff, as a contributing factor to long wait times.

3.2.3. Research Question 3: Process

The following section details IMPACT program processes, namely the *dispatch process, call resolution, service accessibility,* and *collaboration.*

3.2.3.1. The Dispatch Process. Overall, the dispatch process was reported to be adequate by participants, with mental health calls being the top priority of the team. However, two

subthemes emerged that hindered the dispatch process: *Responding to non-mental health calls* and *call volume and triage*.

3.2.3.1.1. Responding to Non-Mental Health Calls. All police officers and crisis workers described being dispatched to non-mental health calls at times. While participants identified the need to respond to non-mental health calls when all other cars are on a call, participants also expressed frustration at being dispatched to calls that were non-mental health-related and not top priority (e.g., attending calls not in progress or going to take witness statements in non-urgent matters) because it interfered with their ability to respond to mental health calls when such calls did come in.

> *"We're stuck on a call that's not mental health, it's definitely police, but we can't leave to attend to what is now a mental health call or a call where we can be of use."*
>
> (Crisis Worker)

Moreover, police officers and crisis workers noted that when they are on calls without a mental health component, the crisis worker is unable to do their intended role. However, participants also reported that this issue was mitigated at times by having the crisis worker offer phone support to other traditional police teams on the scene with a mental health component and/or the people in need of mental health supports also receiving police services.

One police officer remarked that the amount of non-mental health calls attended has increased since the inception of the program:

> *"[At the] beginning of the program, all we were dispatched to us was mental health calls 100% of the time. But then, of course, it's you know, you gradually see it morphing into well, they're free, and they can go and take this, you know, a car accident report or something, so the more that had happened, the more often it happened."*

(Police Officer)

While participants expressed frustration regarding attending other calls, they also acknowledged that other calls needed to be attended to as well.

3.2.3.1.2. Call Volume and Triage. Frontline and leadership staff from mental health and police agencies noted that there was high variability in mental health call volumes across different times and days, making it hard to anticipate when the call volume would increase. Participants also reported that when call volumes were high, many calls remained "pending" (i.e., in the response cue) resulting in the IMPACT team being triaged to the highest priority call, but triage criteria was not always consistent or easy to determine. Interviewees did not identify clear criteria or guidelines for how these decisions were made, but rather identified that these decisions are left to the discretion of 911 operators or frontline police leadership.

"There's other days where there's five or six calls for mental health concerns on the screen. And we have to triage what's the most important one to go to."

(Police Officer)

3.2.3.2. Call Resolution. Four sub-themes emerged when asking about the call resolution process: *Crisis de-escalation and referrals, hospital transfers*, *'nowhere else to go',* and *documentation*.

3.2.3.2.1. *Diversion, Crisis De-escalation, and Referrals.* Participants consistently shared that as the main goal of the IMPACT program is to divert individuals from the hospital and jail, and that frontline staff focus on diverting individuals from the hospital when it is appropriate to do so. Participants from each organization shared that the mere presence of the crisis worker can be a facilitator of crisis de-escalation rather than traditional police response in

which no civilian responders are present. All participants regarded the crisis workers as skilled in their ability to de-escalate mental health crisis situations.

Most participants also shared that crisis workers focus on de-escalation and referrals. All staff from the mental health agency mentioned that the mental health agency crisis office was important for facilitating referrals, including the ability to call the crisis line to look for referrals, access a community resource list, and refer individuals to the crisis line. Additionally, all frontline police officers reported that they had learned about different community resources from the crisis workers and this helped them to connect individuals to other services when they responded to mental health calls but were not in the IMPACT role.

> *"Having a crisis worker that has access to all of these different programs that a lot of us have never even heard of before, oh my gosh, that has been really beneficial."*
>
> (Policer Officer)

Service accessibility (described in Section 3.2.1.3.2.) was a barrier to the referral process and included limited hours of operation to services, limited capacity of services, and unclear referral processes. Additionally, all crisis workers noted that their ability to successfully make referrals was dependent upon the service user, as they need to be willing to access these resources and engaged in finding alternative solutions to the hospital. Lastly, the ability for the crisis worker to form a safety plan with the individual experiencing crisis was identified as an essential function of the IMPACT program for crisis de-escalation and to ultimately provide confidence that referring an individual to services and/or leaving them in care of self was appropriate (i.e., hospital diversion).

3.2.3.2.2. Hospital Transfers. In contrast to decisions about referrals, which respondents identified as the primary work of the crisis worker, participants identified that ultimately it is the

police officer's decision whether to apprehend someone under the MHA and facilitate their hospital transfer. Frontline and leadership staff from the police and mental health agencies reported that during the transfer process, a second police officer may be called to assist in transportation to the hospital. Long hospital wait times were described as a barrier to timely call resolution by all participants. When an individual is apprehended under the MHA, the IMPACT team is required to stay until they are seen by a physician. Therefore, participants reported that it was typical to wait several hours after arriving at the hospital. Participants from all agencies acknowledged the burden of long wait times on the team and how this prevents the team from responding to other mental health calls.

In response to the elevated number of police-facilitated mental health emergency department presentations, the hospital and police agency created a Person in Custody form to assist in the transfer process and facilitate communication between police and hospital staff, which includes a nurse risk assessment to determine whether ongoing police presence is needed. However, frontline police and crisis worker staff noted that they are often required to stay until their service user is seen by the physician. Interview participants identified that while this form assists with communication and decision-making, it does not mean that individuals who were brought to the hospital by police will be prioritized, or that their status will override criteria used to triage individuals who present to the ER through other means.

Additionally, frontline police officers and crisis worker staff reported that although they try to provide collateral information to hospital staff when possible, hospital staff vary in the degree to which they listen to or seek this collateral information. One crisis worker identified forming relationships with the charge nurses as important to facilitating transfers and ensuring

information is shared. Additionally, one police officer described the enhanced knowledge of the crisis worker as key for communication during hospital transfers.

> *"I think it certainly helps smooth out interaction with the hospital. The mental health worker, of course, can relay to the doctor or the charge nurse what they're seeing, rather than just in our own layman's terms. 'Well, what do you mean by kind of off?'"*
>
> (Police Officer)

Participants identified two substantial issues related to long hospital wait times. First, the IMPACT team and their service users wait in the ambulance bay, which participants described as loud, chaotic, extremely cold in the winter, and stressful and distressing for service users. During one of the ride-along visits, the researcher presented to the hospital with IMPACT staff for patient transfer. During this instance, the service user was required to wait on a stretcher in the ambulance bay with no privacy amongst five paramedic and three police teams for an extended period of time. The researcher was in the ambulance bay for approximately 45 minutes before leaving with a separate officer. There was no indication that the service user was to be assessed by a physician or nurse soon before the researcher left. Crisis and police staff confirmed that this was a typical occurrence when prompted by the researcher.

Next, participants shared that service users' presentations may change during the long wait times, meaning that they may not appear apprehendable under the MHA by the time they are assessed by a physician, thus are sent home. This was identified by participants as an issue as it can contribute to negative healthcare systems interactions, preventing future help-seeking, pulls them away from their natural environment and supports, and may prevent root issues (i.e., underlying mental health or addictions issues) from being addressed.

“We’ve had times where we’re sitting in the ambulance bay for hour upon hour upon hour with people who, on the initial assessment of bringing them in, really needed to attend hospital. Seven hours later of waiting in an ambulance bay. Guess what? Their presentation may have changed.”

(Crisis Worker)

Leadership staff from all organizations shared plans to create a more supportive waiting area in the hospital for individuals who present with the police.

3.2.3.2.3. Nowhere Else to Go. A common subtheme that was shared throughout the interviews and ride-along site visits was that often, although it is not the appropriate service, service users have nowhere to go other than hospital and/or jail, and that resource gaps or resource accessibility issues can seriously hinder their ability to divert individuals from the hospital.

“Yeah, there is no in-between. It's hospital or they stay in the street, which doesn't happen... But it usually ends up hospital and then you sit there for six hours. And then the next time something happens, people are like, ‘I am not going to the hospital.’”

(Crisis Worker)

During the ride-along site visits, the researcher observed an instance where this issue occurred (i.e., staff noted that hospital was likely not the best fit for the service user, but it was the only appropriate service option available).

“I find that the people even that we're still bringing to the hospital don't necessarily need to go, but we just have nowhere else for them if that makes sense. Like we know something's bad we know we're gonna get there and the doctors gonna be like, "No, we're not forming" them. But we had no other choice at 3 am.”

(Police Officer)

Several interview participants suggested that the presence of physical crisis facilities (e.g., respite beds) might mitigate this issue.

"[It would be nice to have] a space that's between hospital and leaving the person on the street, right, like having some sort of other support, support place, like a safe place where there's a nurse, say, if we need to check, and there's a social worker and stuff like that, right? Like something like that would be fantastic. I feel like we could, because a lot of times we have no choice but to take people to the hospital, because there's no other option."

(Crisis Worker)

***3.2.3.2.4. Documentation*.** Lastly, frontline police officer and crisis worker staff reported that post-contact documentation is a substantial part of their roles, and often the last step in call resolution. Crisis worker post-contact reports are used to create critical program statistics; however, crisis worker staff shared that this can be burdensome. Particularly, frontline and leadership staff from the mental health agency reported that crisis worker staff historically had an office day every two weeks to help them to complete all necessary documentation in a timely fashion, but this was discontinued due to resource constraints. Therefore, crisis workers reported that they often complete paperwork intermittently during spare time in the cruiser. Crisis worker staff suggested reinstating administrative time, having administrative support from the mental health agency, or using dictation software (akin to what their police partners use) would alleviate some of the burden and strain that the paperwork is currently placing on their position. Police officers did not typically describe documentation as burdensome; exceptions they identified

included reports for non-mental health-related incidents and historical mental health or addictions-related incidents that was not currently in progress.

3.2.3.3. Service Accessibility. Overall, IMPACT service was described as accessible and almost always available 24/7. However, frontline and leadership participants identified staffing shortages and being tied up on other calls, both mental health or non-mental health-related, or at the hospital as barriers to service accessibility. Additionally, participants reported that there were occasionally times where the crisis worker is at the station and not on the road due to calls for service that they cannot attend (i.e., calls deemed not safe for civilian presence by the police agency, such as weapons calls) or possible scheduling conflicts (i.e., last-minute changes or depending on where the officer was when the 12 PM to 12 AM secondary crisis worker shift started). If there is not an IMPACT-trained officer available, participants shared that the crisis worker may still be paired and on the road with an officer who is not IMPACT-trained.

Participants reported that when the team is not available, traditional police response is used. However, officers may be IMPACT-trained and thus, have a stronger mental health response knowledge or may call the crisis worker for support. Therefore, participants reported enhanced mental health response across the local police service despite service gaps.

> *"On my platoon, I'll always tell everybody, like, even if I'm at another call, if you need me, I can even just talk to the phone or I can go see the matter."*
>
> (Crisis Worker)

3.2.3.4. Collaboration. Participants reported that collaboration occurred both within the two agencies that run the program and between the program and other community agencies at the leadership and frontline levels.

3.2.3.4.1. Within the IMPACT Program. Participants described a strong partnership between the police and mental health agency, both at the agency and frontline levels. Leadership detailed agency-level several successes through this partnership, including the CIT training program, the compiling of resources, sharing of responsibilities, and better understanding of the different fields that each organization works in. Moreover, leadership staff from the police and mental health agencies worked together in the scheduling of crisis workers to ensure that their shifts matched that of police officers and that the police agency was aware of when and which crisis workers would be working. In contrast, frontline staff described the frontline-level partnership as being built on trust and mutual respect between the police officer and crisis worker. Moreover, frontline police and crisis worker staff identified that consistently working with the same individuals allowed them to anticipate how the other responds to different situations and to give feedback to each other, explain their reasoning, and learn from each other.

> *"I mean, generally, they can tell by my left eyebrow if we're going to apprehend somebody and go to the hospital. Like it's pretty incredible. I say our communication is very, very good."*
>
> (Crisis Worker)

3.2.3.4.2. With Community Agencies. Leadership from all organizations shared how the hospital and other community-based organizations attend IMPACT steering meetings. By collaborating with other agencies, leadership from the police and mental health agencies reported that they can be better informed about community issues (e.g., youth mental health) and create efficiencies (e.g., creating a separate waiting room for police hospital transfers). One quote from police leadership exemplifies this process:

"So the meetings themselves are identified or designed in a way that allow us to work through system issues, to remind each other what our commitment was to what we're supposed to do help us understand each our systems and how they work, communicate changes within those systems, and then deal with issues within those systems."

(Police Leadership)

One hospital leadership person completed ride-along with IMPACT, which they reported allowed them to better understand and appreciate the nature of their work and the circumstances they are under, which may require them to transport someone to the hospital.

"[Talking about a specific incident] Weeks prior, if I was the [Mental Health Assessment Team] nurse or manager getting this person admitting admitted to my unit. Looking at the facts around it, it would have been like, "Okay, well, why were they admitted? This wasn't necessarily appropriate intervention here", right? But having seen it from their side of things, really understanding that they're working with what they have, and the ultimate goal is to keep the person safe. Recognizing that, going to the cell within the police station for the night wasn't appropriate. Detox wasn't appropriate. And so, where else do we have? It made me realize that there are some gaps out there and services where an individual has nowhere else to go except for our emergency department."

(Hospital Leadership)

At the frontline level, crisis worker staff shared experiences of working with social service agencies staff (with service user permission) to gain collateral information, understand past solutions and strengths, brainstorm solutions, and be able to leave individuals in the agency's care. As mentioned, crisis worker and police frontline staff shared similar experiences with hospital staff to help provide relevant information both verbally and through paperwork.

3.2.4. Research Question 4: Outcomes

Respondents' discussion of program outcomes and other qualitative data fit within four themes: *client outcomes, quality of care, resource-saving,* and *provider experience.*

3.2.4.1. Client Outcomes. Participants most frequently reported hospital diversion and finding the most appropriate level of care as the intended outcomes of the program. A review of documents including program annual reports suggest that the program is achieving hospital diversions and improving in their capacity to do so (i.e., 55% of calls were classified as hospital diversions in the second year of operation, which was an 8% increase from the first year). However, already described (Sections 3.2.1.3.2.; 3.2.1.3.3.; 3.2.3.2.3.), resource gaps and limited resource accessibility hinder the program's ability to divert service users from the hospital. Within client outcomes, two sub-themes emerged: *client dispositions* and *client experience*.

3.2.4.1.1. Client Dispositions. As supported by interview data and program report review, client dispositions included care of self (i.e., alone, with family, or with community-based social service staff), hospital transfer by MHA apprehension or voluntary, community services, detox, jail, EMS, crisis beds, or shelter. Moreover, all crisis worker staff shared the need to be resourceful to find alternative solutions to the hospital.

> *"So we're definitely meeting those like, I think we have really high hospital diversion numbers… we have to be resourceful sometimes, right? So like asking the types of questions like finding safe places, finding safe people, you know, but I feel like we're definitely I think we're, I think we're exceeding our, our outcomes. Like, based on what I can see from the numbers."*
>
> (Crisis Worker)

However, staff identified that it can be hard to capture how many individuals do indeed connect with the services that they were referred to. One leadership person explained that the way in which repeat service users are currently defined and captured (i.e., within a seven-day period) may hinder the program's ability to identify repeat service users who interact with the service over a longer period of time. A review of the program statistics confirmed that the data only tracked repeat service users in the past seven days, and while this statistic appeared to demonstrate program success (i.e., averaging 13 per month in 2021; 9 per month in 2022), it does not capture longer trends of repeat service for individuals (e.g., repeat service in a month or year). In other words, respondents identified some challenges in capturing the degree to which the program helps to stop cycles of crisis and find long-term solutions.

3.2.4.1.2. Client Experience. Participants also shared IMPACT outcomes relevant to the client experience compared to traditional police responses. This included having more choices available, less trauma due to police experiences or hospital presentation, less restrictive care, and greater support. Additionally, mental health agency leadership and frontline staff shared that they are able to offer a follow-up to service users either through the crisis line, civilian-led response team, or the IMPACT team. The most recent annual report supports this, demonstrating that 303 follow-ups occurred between June and December 2022.

Staff also identified the family of service users as being affected by the team in mixed ways. Participants described the family of service users as being better supported during an IMPACT response vs. traditional police response. However, participants also identified possible burdens or strains on families when an individual left in care of self with family does not receive longer-term support.

3.2.4.2. Quality of Care. When asked about the quality of the care provided by the team, responses were largely positive. Of note, some frontline staff shared that quality of care can be dependent on the amount of time they have with the service user, the presentation and cooperativeness of the service user, and the resources available to them at the time. One police officer described their work as "[doing] the best [they] can with what [they've] got".

Leadership of the mental health agency described gaining insight into the quality of care provided by reading post-contact notes from the team and having service users and community organizations reach out to the team to share their positive experiences and give thanks. One hospital employee shared their experiences indicative of high-quality care from interacting with patients and family members post-contact.

> *"Family [members] are also supported through IMPACT as well. Sometimes mental health patients don't quite understand that they're unwell. And it's their families that's advocating for their care. So IMPACT is really able to validate the family members, and support them and getting them to hospital."*
>
> (Hospital Worker)

3.2.4.3. Program Efficiencies. Three subthemes arose related to cost savings and other efficiencies created by IMPACT: *police savings, hospital savings,* and *other savings*. Eleven of the thirteen participants identified resource savings for the police agency via reduced officer time on calls through shorter call times and having less officers at the calls. Additionally, participants identified savings at the hospital via emergency department diversions and reduced hospital admissions. One staff member at the hospital remarked:

> *"We don't get to see how many patients that they prevented from coming to hospital. But with my involvement with crisis response through doing training with IMPACT and*

police… We've heard the stories about IMPACT, so I know that they're preventing a lot more than are coming to hospital."

(Hospital Staff)

Other perceived resource-savings that participants identified were broader health system savings, reduced EMS calls, increased community-based care, through reduced repeat callers, and possible prevention of future justice system interactions. However, it should be emphasized that many of these resource-savings were perceived and not currently well-captured through data. One police leadership reported difficulties in measuring resource savings (or hindrance to resource savings) that cut across silos and interact with different systems. Specifically, this participant shared difficulties in capturing factors that may or may not contribute to an individual returning to a state of crisis and the impact that has on resources.

3.2.4.4. Provider Experience. When asked about their experiences as frontline staff on the IMPACT team, three main sub-themes arose: *Job satisfaction, burnout*, and *support*.

3.2.4.4.1. Job Satisfaction. All frontline police and crisis workers reported that they were satisfied with their role with the IMPACT team overall, despite some grievances. Frontline participants spoke about their passion for mental health, being able to help others and problem-solve, and getting along with their coworkers as aspects that contribute to their job satisfaction. One crisis worker shared the following:

"There's a certain person that works in this job that is successful in it, right? So that's part of the reason why our team is so amazing. We all kind of have similar qualities, we have similar thought processes. We highly, highly respect one another."

(Crisis Worker)

Furthermore, police officer participants shared that positive experiences as part of the IMPACT team have shaped their own careers and the careers of their colleagues, inspiring them to move to other-related positions or assisting in their ability to respond to calls when serving in the general police role.

3.2.4.4.2. Burnout. All frontline and leadership staff at the police and mental health agencies identified burnout as a concern for frontline staff. Particularly, the intensity of mental health calls, high stress and high demand of the role, volume of mental health calls, and staffing shortages were identified as contributors to burnout. Police identified that the ability to rotate between shifts where they are assigned in the IMPACT and non-IMPACT role as a protective factor to burnout. Additionally, crisis workers identified setting boundaries, learning how to leave work at work, previous experience, and only taking overtime shifts when they are not nearing burnout as protective.

3.2.4.4.3. Support. Frontline staff from the police and mental health agency reported that their colleagues both across and within the two respective agencies were a large source of support. More specifically, participants reported that they were to debrief with their partner (i.e., in the police and crisis worker team) after a difficult call or discuss with members of the IMPACT team. Additionally, staff and leadership reported that leadership may reach out to frontline staff after a difficult call and that staff are able to reach out to leadership.

3.3. Quantitative Analysis

As the survey only received n=2 responses, quantitative analysis did not occur on survey data. Section 2.2.2. details the recruitment and refinement procedure. In focus groups with program staff, frontline crisis worker and police staff shared hesitation regarding sharing recruitment materials post-contact, concerns about feedback requests harming built rapport, and

inability to share materials when the interaction was over if the service user was still in an acute state (i.e., during hospital transfers).

4. Discussion

4.1. Summary of Findings

The purpose of my Masters' thesis was to describe how the IMPACT program operates in the community of Thunder Bay, given its unique characteristics and needs, and how such learnings might apply to similar communities and contexts planning to implement a similar MCRT. To do this, I described the IMPACT program's context, structure, function, and outcomes based on data from interviews with organizational leadership and frontline employees with the program and the hospital, ride-along site visits, and proposed client satisfaction survey data. Overall, the results of this study suggest that there is a good fit between the MCRT model and the community of Thunder Bay, ON. In what follows, I summarize and contextualize the findings for each of my four main research questions, describe strengths and limitations of the study design, and then propose considerations for different stakeholders who may be involved in decision-making about continuing IMPACT in Thunder Bay and/or implementing an MCRT like IMPACT in a similar context.

4.1.1. Question 1: What Contextual Factors Affect the Implementation and Operation of The IMPACT Program in Thunder Bay?

Overall, findings suggest that the contextual factors that affect the implementation and operation of the IMPACT program are the needs of the community, the Northern context, including geography, temperature, and Northern issues, and the different complimentary community resources, including their accessibility and gaps in the resources available. While there are barriers in terms of accessing services and if the services exist, the current services are

sufficient for the program to operate (i.e., there are services to refer individuals to) but not optimally (i.e., these services are not always open, able to take on new clients, or have enough staff to operate at full capacity).

4.1.1.1. Community Needs. These findings are aligned with Thompson (2021), who identified the high volume of mental calls and a lack of community-based services as justifying the need for the MCRT program in the Canadian sub-rural context in which their study took place. The results of this study are also similar to Koziarski et al. (2021), who identified a lack of community-based services to receive MCRT referrals as a barrier to fulsome operation for several Canadian MCRTs. These findings highlight the need to examine the community context, including community needs and community resources available when identifying the optimal crisis services model for a given community (Reuland, 2010).

4.1.1.2. Crisis Response Options. IMPACT and frontline and leadership staff similarly emphasized the importance of the other crisis response options available in the community. This supports emerging literature in which authors call for coordinated crisis response systems rather than individual crisis programs (Balfour et al., 2022; Balfour & Zeller, 2023; Bonfine & Barrenger, 2022).

4.1.1.3. Police Workforce Size. Absent from the current study was a discussion about the proportion of police officers that need to receive IMPACT training. Smaller police agencies may need to train a higher proportion of their staff to ensure that there are always CIT-trained officers available (Mobile Crisis Response Teams Provincial Working Group, 2023a; Skubby et al., 2013). However, small police agency sizes might also hinder the ability for police to receive training due to limits on how many officers can be off the road and at training at once (Skubby et al., 2013). Additionally, the MCRT in the present study was city-run. More rural and smaller

communities may be the jurisdiction of the provincial police, which comes with unique considerations and possible differences in funding (Mobile Crisis Response Teams Provincial Working Group, 2023a), training, policies or other operational considerations.

4.1.1.4. Community Demographics. The demographics of the community were highlighted throughout the findings as special consideration must be taken with the high proportion of Indigenous individuals in Thunder Bay. CIT training content was adapted to include topics, such as trauma-informed care, cultural competency, and sessions from Indigenous community-based services. Moreover, officers and crisis workers completed Truth and Reconciliation training, which was dedicated to learning about Indigenous cultures, the history of colonialization, and other relevant topics.

4.1.1.5. The Northern Context. Lastly, the general geography and Northern workforce shortages affected IMPACT operations. In Northern settings, the general geography, including distance from other communities and weather conditions, affects program implementation (Mobile Crisis Response Teams Provincial Working Group, 2023a; Skubby et al., 2013). The equipment used (e.g., heavy-winter jackets and boots for winter; lighter uniform for summer), travel conditions, available resources (e.g., community-based services available and limited access to services in other communities due to distance), and conditions faced by community members are all affected by Northern context. The relevant workforce issues for the Northern context are discussed below.

4.1.2. Question 2: How is The Program Resourced in Terms of Staff, Space, Finances, Policies, and Procedures?

Results from this study suggest that the program is sufficiently resourced in some areas, but not in others. Particularly, the different training options and the selection of staff who were

an appropriate fit for the program were identified as sufficient and integral to the operation of the program. However, the available resources (e.g., staffing and funding) and structural supports (i.e., policies and procedures) are not sufficient for the program to operate optimally.

4.1.2.1. Challenges. Issues with staffing numbers and fit, as well as complementary community resources were prominent throughout this study. Challenges with funding and staffing MCRTs are well-documented (Bailey et al., 2018; Koziarski et al., 2021; Lamanna et al., 2018; Thompson, 2021), and were expected in the Thunder Bay community where the provincial skilled workforce shortages are compounded with a variety of unique or heightened health and social issues, resulting in poorer outcomes for individuals in these regions (Schiff & Moller, 2021). Current efforts to alleviate the skilled health workforce shortage have been largely targeted at new graduates, such as the Ontario Learn and Stay Grant (Government of Ontario, n.d.). While these approaches have yet to be applied to the field of social work and social services, the current findings suggest that such approaches may not be suitable for MCRTs as the results of this study and the general literature suggest that this role is better suited for those with more work or life experience (Coleman & Cotton, 2016; Mobile Crisis Response Teams Provincial Working Group, 2023a). This finding is consistent with contemporary policing guidelines on working with PLMI from Cotton and Coleman (2015), who specify that staff on MCRTs should be carefully selected and have positive attitudes towards PLMI and possible previous experience working with the PLMI population.

One suggestion that arose from the frontline staff was to have existing staff participate in the interview process for new recruitments. The specialized field knowledge of frontline staff may aid in the quest for recruiting staff who are a good fit for the program. Additionally, frontline staff suggested that new recruits participate in a ride-along before accepting the job so

they can observe the nature of the job. This also can provide the opportunity for interviewees to ask any questions about the role with frontline staff before accepting or denying a job offer. Research that develops and assesses strategies that reconcile these narrow hiring criteria with urgent staffing needs could help the sustainability and function of MCRTs like IMPACT.

4.1.2.2. Policies and Procedures. Unexpectedly, the lack of policies and procedures was identified as something that was both positive (i.e., giving frontline workers more leniency and agency) and a barrier (i.e., a lack of guidance for how the program was to operate at its inception). In an MCRT case study, Bailey et al. (2018) identified that a lack of policies and procedures allowed for the team to continuously learn and be flexible in responding to service user needs, but also led to confusion, frustration, and inconsistency in response across platoons. At the same time, lack of policies and procedures is a common barrier that can prevent clear expectations and accountability in cross-sector integrated care provision (Fisher & Elnitsky, 2012; Lee et al., 2013; Winters et al., 2016). Moreover, there are special safety considerations for when civilians are responding with police (Balfour & Zeller, 2023; Mobile Crisis Response Teams Provincial Working Group, 2023a). The policies surrounding the safety of civilian crisis workers were not specific to the IMPACT program, but rather enforced for any interactions in which civilians are present during call response (e.g., ride-alongs).

One particular area in which additional policies, procedures, or tools could be beneficial is MHA apprehension. The new framework for MCRT development by the Mobile Crisis Response Teams Provincial Working Group (2023a), in partnership with several government, police, and mental health agencies in Ontario, may assist with these initial stages and the creation of any procedures. Moreover, there is a complementary guide to this framework that includes separate checklists to demonstrate the steps that police and mental health professionals should

respectively take at a mental health crisis call, stages of a MCRT interaction, and a suggestion for a screener to document why an individual is apprehendable under the MHA (Mobile Crisis Response Teams Provincial Working Group, 2023b). However, any policies and procedures that may be created for the program must allow for room for flexibility in implementation due to the unique mandate and unique composition of MCRTs and to ensure that these procedures do not hinder its operation. Rigorous research that assesses both the efficacy and any unintended consequences of such a tool should also be undertaken before being distributed to Ontario's ever-growing network of MCRTs.

4.1.3. Question 3: How is The IMPACT Program Functioning?

The results of this study support that the IMPACT program is functioning well, but there are challenges within each portion of the process.

4.1.3.1. The Dispatch Process. The dispatch process tended to work well, however, being dispatched to non-mental health calls or having many pending mental health calls for service posed barriers for the team. MCRT dispatch to non-mental health calls is an issue that is not well-documented in the literature. It would be logical to assume that this is not unique to IMPACT, but rather a challenge that experienced more frequently in rural or remote areas where there are less police resources, thus requiring that MCRT-assigned officers attend non-mental health calls (Skubby at al., 2013). Moreover, internal policies and procedures within the police agency affect which calls are considered police mandate. Additionally, policies regarding the number of officers required to respond to specific calls and are able to transport individuals to the hospital affect the operation of these teams, including what calls MCRTs are dispatched to.

4.1.3.2. Call Resolution. Additionally, the call resolution process worked well when the crisis was able to be de-escalated and a safety plan was formed. However, this process ran into

issues regarding long wait times at the hospital, inability to divert individuals from the hospital due to a lack of suitable community-based services, and issues with successfully providing referrals due to the varying hours of operations with services, communication gaps, and resources being full or with long waitlists. In interviews with officers from MCRTs across Canada by Koziarski et al. (2021), participants also reported issues with having no suitable place to bring individuals who do not need to be apprehended under the MHA and accessibility issues with the existing community-based services. Bailey et al. (2018) similarly identified issues in successfully resolving calls due to resource availability. Issues regarding long wait lists, underfunding of community-based services, and the general over-reliance on the emergency departments for mental health care have been well-captured in Canada (see review by Moroz et al., 2020).

Additionally, the long wait times at the hospital were a large barrier for the IMPACT team. This is a common challenge reported both by MCRTs and traditional police response teams (Baess, 2005; Forchuk et al., 2010; Kirst et al., 2015; Koziarski et al., 2021). Currently, this is a circular issue in which MCRTs potentially reduce wait times at the hospital by diverting individuals from the ED (e.g., Every-Palmer et al., 2022; Fahim et al., 2016b; Ghelani et al., 2022; Lamanna et al., 2015, 2018), but may be subject to long wait times when they are there, further preventing their ability to divert additional individuals and relieve the ED.

While the current MCRT had formed a partnership with the hospital that facilitated the flow of communication between the hospital and IMPACT program, there were no formal agreements regarding service prioritization to reduce hospital wait times for the team. One possible solution that has been used by other programs is a formal agreement, such as a memorandum of understanding (MOU). For example, the police agency in Hamilton, ON, has an

MOU with the hospital stipulating that individuals who are brought in by police under the MHA are to be seen quickly to facilitate quicker departure from hospital for police officers (Hamilton Police Service, n.d., as cited by Boyd, 2019). This agreement is attributed to having reduced wait times from around 150 minutes to 70 minutes for traditional police responders and under an hour for the co-response team (Coleman & Cotton, 2016). However, this may be complicated for smaller and over-burdened hospitals that already struggle with meeting the demands of service prioritization or cities that only have one main hospital.

4.1.3.3. Service Accessibility. Staff described the program as accessible, despite service gaps and the team being tied up on other calls (mental health or non-mental health). Data from previous studies suggests that these issues are largely related to the nature of the co-response, a common challenge for MCRTs, and not specific to IMPACT (Baess, 2005; Forchuk et al., 2010; Koziarski et al., 2021; Thompson, 2021). There are pros and cons to the co-location co-response model compared to a co-response model in which the mental health professional responds in a separate vehicle (Mobile Crisis Response Teams Provincial Working Group, 2023a). While the ride-along model ensures that the crisis worker is on scene at the same time as the police and mitigates the threat of the individual's crisis escalating while the officer is waiting for the crisis worker to arrive, the crisis worker is then tied to that specific unit. Whereas in the model in which the mental health professional meets the officer on scene, there is the risk of crisis escalation, but they are more widely available to different officers and do not need to attend non-mental health calls. The IMPACT program worked around these barriers by having the crisis workers provide phone support to officers if they were not busy.

The 24/7 nature of the IMPACT program contributed to service accessibility. However, IMPACT's hours of operation are rare (Iacobucci, 2014). Koziarski et al. (2021) surveyed 17

Canadian police services with a MCRT and only one operated 24 hours a day. If an MCRT is unable to operate 24/7, the current study suggests that they may wish to either adapt their hours according to when community-based services are open so they can indeed successfully make referrals and divert individuals from the hospital and/or jail or according to service call data (i.e., when calls tend to be highest). This is to say, programs must make intentional decisions regarding what is more important for their context: making successful linkages to other services to facilitate hospital diversions or to relieve police agencies from some mental health calls during high-demand times and de-escalate people on-site to facilitate diversions when other services are closed.

4.1.3.4. Collaboration. Lastly, respondents of all types identified collaboration as key to the success of the program. The collaboration between the mental health agency and police agency was instrumental in program operations, both at the leadership and frontline levels. Collaboration between the leadership of the main agencies involved in MCRTs has been identified as critical for program implementation and operation by several other studies (Bailey et al., 2018; Puntis et al., 2018; Robertson et al., 2020; Shapiro et al., 2015).

At the frontline level, the collaboration between the police officer and mental health professionals, especially through built trust and cross-sector knowledge exchange, was vital to the operations of the team. This finding was not unique to IMPACT and is supported by the literature (Kirst et al., 2015; Winters et al., 2015). An advantage of the co-response model in which officers and crisis workers are co-located is the unique opportunity to build trust between both professionals (Mobile Crisis Response Teams Provincial Working Group, 2023) and to highlight strengths and gaps in knowledge of each professional type through their time together. For example, in a case study of an MCRT in Toronto, ON, Kirst et al. (2015) established the

need for greater mental health and crisis de-escalation training for officers and safety training for mental health professionals. This need was also established during focus groups that occurred with the IMPACT team (Zitars & Scharf, 2022). The results from the current study suggest that additional training has benefitted the team, as well as clear communication from officer partners to understand safety risks. Likewise, training on the use of force model and how this is used in policing is recommended for crisis workers in the guidelines developed by the Mobile Crisis Response Teams Provincial Working Group (2023).

Additionally, collaboration between the program agencies and the hospital and other community-based organizations occurred at the frontline and leadership levels as well. Frontline workers collaborated to provide support and gain collateral information on clients. At the leadership level, this occurred through steering committee meetings. MCRT collaboration with hospitals and community-based organizations are vital in understanding community issues, collective efforts to address these issues, and for creating ongoing support for individuals (Bailey et al., 2018; Ghelani, 2021; Lamanna et al., 2015).

4.1.4. Question 4: To What Extent is the IMPACT Program Achieving its Aims?

Overall, the findings of this study tentatively support that IMPACT is achieving its aims for client outcomes, quality of care, resource savings, and service provider experience. However, data suggest areas for improvement and is subject to bias as the qualitative data only represents program staff perspectives.

4.1.4.1. Client Outcomes. Qualitative results from this study suggest that the program may be improving client dispositions (e.g., hospital diversions, referrals to other services) and client experience (e.g., more choices, less restrictive care, less trauma, and stigma). However, these results are based on program staff perspectives and are subject to bias. This data is

supported by the Year 2 report for the program (Zitars & Scharf, 2023c), in which statistics obtained from post-contact notes demonstrated that 64% of service users were able to remain in the community and 55% were deemed hospital diversions. Moreover, Zitars and Scharf (2023) demonstrated the improved capacity for the IMPACT team to de-escalate crisis and divert individuals from hospital across the two years of its operation. The client outcome-related findings are aligned with scoping reviews and meta-analyses conducted on MCRT outcomes (e.g., Ghelani et al., 2023; Marcus et al., 2023; Puntis et al., 2018). However, studies that include service use perspectives and data from several data sources (e.g., police and hospital data) are needed to objectively assess IMPACT program outcomes.

4.1.4.2. Quality of Care. Staff (leadership and frontline) perceptions of the quality of care given were largely positive. While this was obtained by a variety of different sources (e.g., personal perceptions, contact notes, clients reaching out), there were no formal feedback mechanisms allowing for consistent and unbiased opportunities for clients to provide feedback. Structured (e.g., Ontario Perceptions of Care Tool; CAMH, 2019) and unstructured (e.g., qualitative comment boxes) can allow clients to give feedback on the quality of care that the service provides and identify areas for quality improvements. For example, client feedback in studies by Evangelista et al. (2016) and Kirst et al. (2015) revealed client preference for the MCRT model compared to traditional response but identified a need for stronger referral pathways for long-term treatment options.

The obstacles encountered in the present study when trying to obtain client feedback highlight how difficult it can be to acquire feedback from service users and may explain the previous small sample sizes of service users in studies investigating MCRTs or used caregivers or care team members to obtain feedback (e.g., Boscarato et al., 2014; Evangelista et al., 2016;

Kirst et al., 2015; McKenna et al., 2015; Palmer et al., 2019). The vulnerability and acuity of service users who access MCRT services and the lack of physical location of these programs contribute to the complexity of client feedback mechanisms. However, this also limits the degree to which service user input can be implemented to improve services.

Data from the interviews and conversations with leadership from the mental health agency demonstrated that they do receive some feedback from service users and community-based services, both positive and negative, via individuals contacting the program to provide feedback. Moreover, as this thesis is part of a larger evaluation contract, our research team and community partners have decided to continue to run the survey for an additional six months in hopes of more responses. The program may benefit from sustained efforts to receive client feedback that is a minimal effort on the client's behalf and accessible, such as the current survey, which does not require clients to actively seek out pathways to providing feedback (i.e., calling the mental health agency requesting to provide feedback).

An Honours' thesis student co-supervised by the author and her supervisor (Murphy, 2023) interviewed six employees from four community-based service organizations in Thunder Bay regarding the IMPACT program. Results from this thesis demonstrated mainly positive perceptions of the care provided by the team, including IMPACT taking time to de-escalate a crisis, effectively communicating, and providing a calming presence during a crisis. However, three of the participants also highlighted ways in which IMPACT quality of care could be improved, such as finding more private spaces to talk to service users to aid in client privacy when discussing sensitive topics, and faster response times. Overall, the data from this study and the study by Murphy (2023) suggest that the quality of care is adequate and supportive of service users' needs.

4.1.4.3. Program Efficiencies. Overall, the program was perceived to be supportive of resource-saving and more resource-efficient compared to traditional police response models. Participants identified savings for police, hospital, systems, and the community. Other quantitative analysis that our team has completed for IMPACT estimates a direct savings of $574,000 - $674,000 to the emergency department from hospital diversions alone in IMPACT's first two years of operation (Zitars & Scharf, 2023a, 2023b). This does not account for hospital savings related to staffing or avoided admissions for other departments. Among the different cost-savings to consider include officer time spent on calls, hospital transport costs, EMS calls, and greater systems costs through reduced repeat callers (Balfour et al., 2022; Cotton & Coleman, 2010). Other studies are supportive of the cost-savings provided by MCRTs (Scott, 2000; Semple et al., 2021).

The resource efficiency and cost-savings across systems are a large reason as to why communities may choose the MCRT model. However, the costs of mental health crises and therefore the cost-savings associated with these models are often difficult to compute due to the different silos and systems that mental health and addictions crises impact. In the US, the CrisisNow.com website has a Crisis Resource Need Calculator, which can allow communities to understand the potential healthcare costs associated with delivering care for individuals requiring care in a mental health crisis across a variety of crisis system scenarios, including a traditional health care system, MCRTs, and a comprehensive crisis system including crisis centers (National Association of State Mental Health Program Directors, n.d.). Such accessible tools to calculate possible costs in Canada may assist with justification for the employment of MCRTs or other crisis response models.

4.1.4.4. Staff Experience. Lastly, crisis workers and police officers shared that they are satisfied with their roles due to their interests in mental health and general fit between the position and their personality and skillset. Although burnout was a concern for crisis workers and police officers, respondents identified that the presence of supportive colleagues and leadership protected against this. Ghelani (2021) highlights the importance for MCRT crisis workers to build relationships with their police counterparts to protect them from burnout. Currently, the literature does not address possible burnout and exposure to trauma for mental health professionals on MCRTs. More research dedicated to this topic can aid in identifying how to best support MCRT frontline staff.

In sum, the results of this study support the operation of the IMPACT program and demonstrate its general fit for the community of Thunder Bay. Moreover, the findings of this study are generally consistent with the extant literature.

4.2. Contributions to Theory and Systems

The following sections will demonstrate how these results can be used to inform the theoretical understanding of how MCRTs are conceptualized and delve into how this study may inform the larger crisis and mental health and addictions systems, leading to implications, limitations, and directions for future research.

4.2.1. Model Heterogeneity: Fidelity vs. Flexibility

While MCRT model heterogeneity can complicate the establishment of best practices (Puntis et al., 2018), the findings support some heterogeneity of MCRTs to allow communities to make informed decisions about how this model can be adapted to meet the needs of their community (Reuland, 2010; Shapiro et al., 2015).

There is tension between the need to establish an evidence-based practice for MCRTs and allowing communities to adapt the model to their community needs, community characteristics, and available resources (Puntis et al., 2018; Reuland, 2010; Shapiro et al., 2015). The concepts of *fidelity* and *flexibility* are common in the program implementation and evaluation literature. The *fidelity of implementation* refers to "the degree to which… program providers implement programs as intended by the program developers" (Dusenbury et al., 2003, p. 240). In contrast, *flexibility* refers to how programs can be adapted to meet the needs of their varying contexts.

The current study suggests that the active components that are involved in the *structural fidelity* of MCRTs are the embedded co-response piece (i.e., having a mental health worker who co-responds with a police officer; co-location), uniforms for crisis workers that clearly communicate their position, and enhanced officer training on responding to mental health calls and working with PLMI. Moreover, our findings suggest that the active components that contribute to *process fidelity* are the presence of other crisis services that allow for the MCRT to be prioritized for high-acuity calls (i.e., dispatch) and other community-based services to refer to (i.e., call resolution). In sum, the core elements of an MCRT based on the current study and the broader literature appear to be co-location, enhanced officer training, other mental health crisis services, and community-based services (Blais et al., 2022; Ghelani et al., 2022; Iacobucci, 2014; Lamanna et al., 2018).

One important mechanism of action that is part of the current model under study is agreements with hospitals regarding pathways to prioritize individuals brought to the ED by co-responders (Coleman & Cotton, 2016; Ghelani et al., 2022).

Of note, the way that co-response is currently defined in the literature is very broad. Co-response or MCRT can consist of the co-location of mental health professionals and police (i.e.,

ride-along model), professionals that meet officers at calls, or provide telephone support. The literature on co-response teams is unclear regarding what ‘co-response’ truly is (e.g., Ghelani et al., 2022; Puntis et al., 2018).

As evident through the interviews in the present study, these differences are likely important to the function of a model within a particular context. The community that this case study occurred in had two types of models, one in which mental health professionals co-responded to mental health calls with police (i.e., co-location) and another previous approach where they met the officers at the call. Participants in this study emphasized that co-location is highly important, allowing relationship building between the two professionals, ongoing knowledge exchange, and the ability for a trained mental health professional civilian to be there from the onset of a call-response to aid with their mental health-specific knowledge base, crisis de-escalation, and a softer-facing approach. Moreover, the results of this study demonstrated that the civilian-led mobile response team had a related but non-overlapping purpose, where they were able to respond to calls without safety concerns, with or without police presence.

Prior to IMPACT, a civilian-led mobile team called the Joint Mobile Crisis Response Team (detailed in Section 1.8.1.) that met police at calls was the only MCRT. Beyond issues with limited capacity to response to call for service due to limited hours of operation, this program also did not demonstrate significant diversions from the ED (Hawkins et al., 2019). While this may be due to many different reasons, including how data was captured, this may be supportive of the importance of having a mental health professional at the onset of response (i.e., embedded, ride-along co-response). In contrast, the IMPACT team has demonstrated a substantial ability to divert individuals from the hospital (55%; Zitars & Scharf, 2023).

Perhaps further delineation of model types is needed to establish best practices for MCRTs. For example, MCRT could be a term that encompasses all mobile crisis response teams that are connected to police response, with co-response teams referring to only those in which mental-health professionals are co-located with police, and joint-response teams referring to models where mental health professionals meet the police at calls. In the framework developed by the Mobile Crisis Response Teams Provincial Working Group (2023), the MCRT model types are identified as 'embedded live response' (i.e., co-location primary response), 'embedded follow-up response' (i.e., co-location secondary response), 'live co-response' (i.e., mental health professionals drive separately and meet police at call). Clear definitions regarding the varying types of response models, the identification of what the active ingredients of each MCRT response model are, and clear reporting of MCRT characteristics in empirical studies are likely to assist with the current issues in the literature regarding the heterogeneity in MCRT implementation and how this prevents the identification of MCRT best practices and general efficacy (Puntis et al., 2018).

Nonetheless, the heterogeneity of the MCRT model can be leveraged in a way that creates flexibility for communities and empowers them to make informed decisions regarding how they can adapt the model to best fit their needs. This may be particularly important in smaller, Northern, and/or remote communities, which may need to adapt this model from the way in which it has been established in larger urban centres. For example, the ability for programs to vary in their hours of operation, appearance, vehicle, mental health professional criteria, and referral methods is likely to assist in the uptake of these programs across communities. However, what comprises MCRT fidelity must be established to empirically study these teams and establish best practices.

4.2.2. The Need for Crisis Systems

The results of this study support the emergent literature calling for a focus on crisis systems over crisis services and larger systems coordination (e.g., Balfour et al., 2022; Balfour & Zeller, 2023; Bonfine & Barrenger, 2022). The presence of the crisis phone and text lines, civilian-led mobile response team, and crisis beds were highly supportive of the IMPACT program and created a stepped approach to addressing the crisis continuum. The Substance Abuse and Mental Health Services Administration's (2020) best practice guidelines for behavioural health crisis care detail three core elements of a crisis system: 1) someone to talk to (i.e., crisis lines); 2) someone to respond (i.e., mobile crisis teams); 3) somewhere to go (i.e., crisis receiving and stabilization services).

In Thunder Bay, the two first elements of the crisis system are present. However, data from this study showed that there were gaps in the places to go. While there are services that individuals are able to go to when experiencing crisis, limited hours, limited capacity, or high-barrier eligibility criteria prevent individuals from being able to access these services. As a result, many individuals are required to present to the hospital, jail, or stay in care of self with family, when these are not the most appropriate options. A dedicated crisis facility in Thunder Bay could help to bridge gaps in the current crisis system and ease the burden of crises on the hospital and jail. Moreover, to fully complement the existing crisis system, the crisis facility must have a 24/7 availability, a 'no wrong door' policy, and rapid drop-off times for police or paramedics (Balfour & Zeller, 2023). However, these facilities will be affected by the larger staffing and funding shortages that are reported across the community. Moreover, these type of crisis centres tend to be less frequent in rural, isolated, or smaller communities (Kempf, 2008).

While the current crisis system in Thunder Bay does not meet the established best practice guidelines, it does support that smaller or remote cities can still benefit from a co-response model if other aspects of a crisis system are established (e.g., crisis lines and civilian-led mobile crisis response). Taken altogether, examining the existing crisis response options is a vital step for communities looking to adopt a co-response model or to expand their crisis services. The presence of supplementary crisis services that were operating together was conducive to the success of the MCRT.

However, as highlighted through the results, co-response is not appropriate for all crisis situations. Moreover, depending on the context, the co-response model may not be a cost-effective option or initial costs may be too great, especially in smaller or rural communities (Bonynge et al., 2005; Fix et al., 2023). The co-response model is a high-cost model aimed towards high-acuity cases (Mobile Crisis Response Teams Provincial Working Group, 2023a; Rogers et al., 2019). Therefore, lower-cost approaches aimed toward lower acuity crises are necessary for MCRTs to function optimally, facilitate resource-savings, and to be available for higher acuity calls for service.

Similar to how one prescribed set of MCRT components is unlikely to fit all communities, Fix et al. (2023) state that "while there are best practices, there may not be one 'right' way to do things; each community or region should evaluate their resources and options, and work to design a [crisis] system that ensures [people in mental health and addictions crisis] have safe and appropriate levels of care offered" (p. 208). Therefore, communities must holistically examine their existing services and take a systems approach to addressing mental health and addictions crises. Past crisis systems approaches (e.g., Tucson, Arizona) have demonstrated improved client and community outcomes and substantial resource-savings across the silos (Balfour & Zeller,

2023). In sum, communities must focus on building crisis systems to make informed choices about what crisis response models are the best fit with their context.

4.2.3. The Need for Long-Term Solutions

Aligned with Coleman and Cotton (2016), a third-generation approach that consists of both proactive (i.e., preventative) and reactive solutions is needed. Police agencies must work with other organizations to identify gaps, flow continuity of care, and establish post-crisis wraparound care, including long-term solutions for addressing mental health and addiction issues, such as treatment facilities, accessible and appropriate counselling services, and affordable housing. By working together, these organizations can create a comprehensive system that addresses the root issues contributing to crises.

Service users have expressed frustration with a lack of connection to other long-term solutions post-crisis interaction in other studies (Evangelista et al., 2016; Kirst et al., 2015). For crisis systems to operate optimally, there must be access to services that emphasize skill-building and autonomy for the client (i.e., focusing on crisis prevention and promotion), in addition to responsive and reactive services. By empowering individuals with the necessary tools and resources, they can develop resilience and effectively manage their own well-being, reducing their reliance on reactive crisis interventions (Balfour et al., 2022; Walter & Petr, 2011). To enhance the work of crisis systems, efforts should be made to reduce wait times and ensure that individuals can access the necessary support when needed. Shorter waitlists can help clients maintain stability post-crisis and prevent their conditions from worsening due to delayed care. While safety plans are crucial for preventing future crises and protecting clients (Ghelani, 2021; Pope et al., 2023), they may not be sufficient on their own. Ongoing care is essential for individuals to receive continuous support, monitoring, and treatment. Without regular and

sustained care, safety plans alone may not effectively address underlying issues or prevent crisis situations from occurring.

Investments are being made by the government at the federal and provincial level to improve access to mental health services in Canada through community-based services, stepped care models, increased psychotherapy access efforts, and e-mental health services (Moroz et al., 2020). These efforts must continue to aid in preventing crisis and promoting positive mental health. Moreover, upstream efforts that target risk factors for crisis are needed for a comprehensive approach. Such efforts must also work to address social determinants of health (World Health Organization, 2008) and systematic racism (Balfour & Zeller, 2023).

4.3. Implications

The current study addresses gaps in the literature, including a lack of studies on MCRTs in diverse areas (e.g., rural, remote, smaller) and identifying the active components of an MCRT (Lamanna et al., 2018; Puntis et al., 2018). To my knowledge, this is the first study to explicate the critical components of an MCRT.

4.3.1. Considerations for the IMPACT Program

The findings of the present study, particularly issues regarding successful referrals, the IMPACT program should work with community-based services to create referral pathways to a variety of different services (e.g., detox/addictions, counselling, developmental services) for service users. Moreover, the long wait times at the hospital suggest that the IMPACT program may benefit from a written agreement, such as an MOU, which facilitates quicker police transfers and allows units to return to the road at a quicker pace and attend more calls.

Internally, the IMPACT program may wish to refine triage procedures and establish processes for when mental health and addictions calls for service are made while IMPACT is on

another call. Furthermore, IMPACT leadership may benefit from consulting with frontline staff and other MCRTs as to what strategies they can pursue to maximize use of the crisis worker time.

4.3.2. Considerations for the Community of Thunder Bay

Previously established as a targeted outcome in the 2021-2025 Thunder Bay community safety and well-being plan (Community Safety and Well-Being Thunder Bay, 2021), this study highlights the need for a crisis facility that can support individuals experiencing mental health and addictions across the lifespan. The results of this study highlight how gaps in crisis care can further burden hospital emergency departments or result in inappropriate care for PLMI. Therefore, crisis facilities must be a priority for the community of Thunder Bay.

Moreover, the need for more detox and addictions treatment facilities was identified by many participants. When detox beds are not available, some individuals who would be better suited for a detox facility are brought to the ED. Therefore, the expansion of detox and addictions treatments is a clearly identified need that should be addressed to reduce the burden of these issues on the hospital and to provide more appropriate care to these individuals.

Additionally, coordinated efforts towards addressing the root causes of crises (e.g., mental health, addictions, poverty, homelessness, crime) must be made to end cycles of crises. Currently, there are many different boards, committees, and tables that work towards this goal, such as the Thunder Bay District Health and Addictions Networks, the Thunder Bay Community Safety and Well-Being Board, the Thunder Bay Coordinated Housing Access Table, and the Thunder Bay Situation Table. Sustained efforts between community organizations, non-profits, and government agencies, including the TBPS, are necessary for preventing and addressing crises.

4.3.3. Considerations for Other Communities

The present study demonstrates how the MCRT model is applied to a remote Northern context. The results support the importance of identifying community needs and choosing a model that aligns with these and forming strong partnerships between police and mental health agencies. Moreover, this research underlines the importance of prioritizing the creation of a cohesive crisis system with various service options tailored across the crisis continuum to assist with call prioritization for the MCRT. Therefore, communities must make intentional and informed decisions regarding where to expand their crisis services based on the existing service options available.

Additionally, for communities that currently have an MCRT, program evaluation and progress monitoring are vital for identifying areas for improvement and possible gaps in service (Mobile Crisis Response Teams Provincial Working Group, 2023a). This, in turn, can inform decisions for MCRT operations and service creation prioritization within the community. Furthermore, such evaluations should be published to create transparency with the community and contribute to the current evidence base (Mobile Crisis Response Teams Provincial Working Group, 2023a). Partnering with universities or colleges can assist with program evaluation as there is often mutual benefit (i.e., knowledge pursuit and research experience for students). Moreover, mental health or police agencies may not have staff with the experience equipped to perform program evaluation or may wish for program evaluation to be conducted externally. Program budgets should dedicate funds towards continuous program evaluation as the program and community needs evolve.

Community safety and well-being plans (e.g., Community Safety and Well-Being Thunder Bay, 2021) are one option for identifying and organizing collective efforts to address

mental health and addictions across different agencies within a community. In the context of Ontario, all municipalities are mandated to prepare and adopt a community safety and well-being plan under the Police Services Act (RSO, 1990, c. P.15). Moreover, as suggested by Coleman and Cotton (2016), a well-crafted mental health and addictions strategy for a police agency that is created in partnership with community-based organizations and other stakeholders, including those with lived experience, and congruent with the agency's organizational (corporate strategy) can aid in comprehensively guiding their interactions with PLMI.

4.3.4. Broader Implications

The present research supports that policymakers should emphasize the formation of crisis systems in which service options complement each other, opposed to crisis services in general. Moreover, the findings of this research suggest that the way that funding initiatives are structured should empower communities to make informed decisions regarding what crisis response model is best suited for their community context and needs, rather than dictate what model should be used. Therefore, funding opportunities must be broad in the constraints in which they place on communities to allow communities to build crisis systems rather than focusing upon specific crisis services.

Furthermore, the present research contributes to the extant MCRT literature and provides guidance for the formation of evidence-based practice. While the heterogeneity of the MCRT model complicates the empirical evidence supporting MCRT implementation, the current study presents several key components that may be vital in achieving optimal outcomes. By identifying key or active components to the MCRT model, the research base can establish what comprises MCRT fidelity and what components can be flexible.

Lastly, the current study demonstrated the value of using a framework, specifically the extended Donabedian framework, to systematically examine an MCRT. The extended Donabedian framework served as a basis for much of the study design and assisted in providing structure for the research questions and results. As its feasibility and value are demonstrated in this study, future researchers may choose to use this framework for MCRT program evaluation and quality improvement efforts.

The specific value of using the Donabedian framework is at least twofold. First and in general, it systematized the evaluation of the IMPACT program and its components which promoted both a balanced and comprehensive description of the program, shedding light on program elements that are both successes and remaining challenges. Second and more specifically, this research included a close look and discussion of the elements and potential mechanisms of action, including both structures and processes, that contribute to the outcomes the program was intended to achieve.

To illustrate this point, by using the extended Donabedian framework, I was able to explore the hospital process that contribute to program outcomes. Whereas past studies have tended to confound process and outcome by evaluating hospital presentations through metrics such as the number of hospital presentations and officer time spent at hospital, by examining structures and process, I identified program elements (e.g., structure: physical waiting area capacity; process: hospital communication practices) that can be adapted to improve progress towards program goals. In sum, the extended Donabedian model is a useful framework in evaluating MCRTs and fills a gap in the current literature, which largely lacks guiding frameworks for program evaluation.

4.4. Limitations

The present study is not without limitations. First, this is a case study conducted in a remote northern city, which may limit the generalizability of findings. While case study methodology may be critiqued for a lack of generalizability, Corcoran et al. (2004) frame case studies as a study of *practice*. That is to say, case studies have the ability to identify practices that work or do not work in a particular context, which in turn may inform these practices in other contexts. Moreover, despite variations in contexts, MCRT programs frequently experience many of the same barriers, such as funding and staffing (Koziarski et al., 2021; Reuland, 2010). The purpose of this research was not to provide widely generalizable findings (e.g., generalizable to large urban centres), but rather provide an in-depth example of how MCRTs can be adapted to meet the needs of one particular context and to identify possible key components of this model. With these findings, general assumptions may be made about the adaptability of the MCRT model to meet the needs of other similar contexts and possible factors that can affect the fit of MCRTs to other contexts. Additionally, as studies of MCRTs have tended to occur in larger urban settings, the context of this study contributes to its novelty and fills a gap in the literature in understanding how MCRTs function in smaller northern or rural/remote contexts. Heterogeneity of MCRT implementation is an existing issue in this research field, thus, Puntis et al. (2018) provide a suggested framework of model aspects to be reported to assist in understanding model components and their context in research. These aspects have been reported in this paper.

Next, the overall sample size of *n*=13 interview participants is relatively small due to the small population size of eligible participants. However, Braun and Clarke (2021) highlight that sample size is less pertinent in qualitative research where the depth of data affects the sample

size needed. Due to the small population size and richness of interviews, I believe this sample size is appropriate for this study. To avoid homogeneity of sampling and to ensure various experiences are captured in interviews, I purposively sampled IMPACT workers and police officers from multiple platoons and shifts and varying time spent working with IMPACT.

The lack of service user perspectives is a large limitation of this research. Despite many efforts to recruit service users, these attempts were unsuccessful. This contributes to possible response bias in the data, as only employees of the agencies involved were interviewed. Challenges associated with the nature of this research (e.g., time constraints associated with a thesis, researchers unable to directly recruit participants) complicated recruitment efforts. Some past research has included qualitative accounts of service users' experience (e.g., Kirst et al., 2015; Lamanna et al., 2018) and future research should continue to involve those with lived experience. Moreover, this research did not include perspectives from dispatchers, which was a missed opportunity to gain additional perspectives on the accessibility and responsiveness of IMPACT.

Lastly, due to the overall nature of the study (e.g., naturalistic, no comparison groups) and data collected (e.g., single timepoint, mixed methods), the analysis cannot compare program functioning with other MCRTs, conduct objective progress monitoring, or draw causal conclusions. However, the intention of this research project is to examine the functioning of a MCRT in a northern context and in this process, identify possible critical components that contribute to or hinder its success. Thus, the ability to make comparisons or casual conclusions is not necessary for this project.

4.5. Future Directions

This master's thesis presents possible critical active components of an embedded ride-along MCRT. Future research should work to confirm or add to the proposed critical components and identify the critical components for other forms of MCRTs. Such research can contribute to the formation of evidence-based practice for MCRTs and may aid in resolving difficulties regarding the heterogeneity of these models which have prevented the gathering of empirical evidence to support MCRT implementation.

Moreover, the general literature must work to understand if the differences in how the MCRT model is realized contribute to differences in outcomes. The current work suggests that there are differences in perceptions and outcomes between models in which the professionals ride along in the same vehicle vs. separate vehicles. These differences have also been acknowledged to have their own benefits and challenges (Mobile Crisis Response Teams Provincial Working Group, 2023a). Therefore, future work should strive to empirically support the pros and cons of each model type.

4.6. Conclusion

This master's thesis project aimed to understand the fit between the MCRT model and the context of Thunder Bay using an extended Donabedian model. Overall, findings revealed a general fit between this model and its context. Moreover, the results suggested that the embedded ride-along co-response, enhanced officer training and the presence of other mental health crisis services and community-based services were critical to the operation of this program and possibly the active ingredients in the MCRT model in how it was realized in this setting. Long wait times and issues regarding finding alternatives to the hospital suggest that improved hospital transfer procedures and improved access to other community-based mental health and addictions

services, including a crisis stabilization centre, would benefit the IMPACT program and the community it serves. This study has implications for the IMPACT program, community of Thunder Bay, other communities, policymakers, funders, and the larger MCRT literature. In sum, the MCRT model can be adapted to meet the needs of different communities. Communities must make informed, evidence-based decisions regarding how they implement the MCRT model or other crisis response services to best work for their context.

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Appendix A

Police Interview Guide

Hello, my name is [NAME], I am a [ROLE] at Lakehead University under the supervision of Dr. Deborah Scharf. We currently have a contract with CMHA to evaluate the IMPACT project. Today I will be talking to you about the IMPACT project, both your role, and your overall perceptions of the program itself - how it's structured, how it runs, and its outcomes.

Just a quick reminder that this call is being audio recorded for research purposes. Is that okay with you?

Before we get started, I need to review a few pieces of information with you, and then obtain your verbal consent to participate.

- Did you have a chance to read the information letter we sent via email?
- Do you have any questions or concerns about any of its contents, or about the study in general?

Review key points of information letter:

- We promise to take all steps to maintain your confidentiality. The information you provide will not be linked to you or your practice in any way
- Your personal comments may be quoted. If they are, it will be done in a way that preserves your confidentiality.
- The audio recording from this interview will be transcribed. Once transcription is complete the audio will be destroyed. We will not write down any names or identifying information that might get mentioned on the call.
- This study may benefit you, as the program evaluation results such as emergent process improvements that create efficiencies for staff.
- IMPACT is a small program thus there is a chance that your contributions to this research may be recognizable to your colleagues despite our deidentification of the data. This is the only foreseeable risk associated with your participation in this study.
- You are a volunteer and can withdraw from the study at any time up until the point of submission of your data, and may choose not to answer any question
- There will be no negative repercussions should you decide to withdraw from the study at any time
- The data will be securely stored at Lakehead University for a minimum period of 5 years following completion of the research project
- The research findings can be made available to you upon request, we will be sharing the findings with your organization.
- By consenting to participate you will not be waiving any rights to legal recourse in the event of research-related harm

This interview will take approximately 45-60 minutes.
Have all of your questions and concerns been answered?
Do you agree to participate?

Consent Given: Y or N

Questions

1. Tell us about your role in the IMPACT program.
2. What formal education do you have?
3. What specific training did you receive for the IMPACT program?
4. How long have you been working with IMPACT?
5. What are your general impressions about the IMPACT program?
    a. Can you think of any primary benefits?
    b. What about challenges of this program?

Structure

6. Now, I would like to ask you about program resources. I will be mentioning different component and would like to hear about your opinions on how the program is resourced for each component?
    a. Staff
    b. Staff training and credentials… do you think your CIT training was appropriate for your role? Are IMPACT officers consistently trained?
    c. Necessary equipment, these are things such as your own desk and chair, computers, phones, appropriate safety equipment, uniforms, or vest ID badges?
    d. Are you able to access private spaces if needed?
    e. Funding
    f. Are there any other resources that you can think of?
7. Overall, how do you think the resources of the program support or prevent the IMPACT program from achieving its goals?
8. Next, I would like to ask you about community resources. How do you think the community resources in Thunder Bay complement the IMPACT program that relies on referrals to low-barrier community care? **[Context]**

Process

For the next few questions, I will be asking you about the functioning of the IMPACT team. When you think about these, I want you to think about the process of this program rather than outcomes. So, these are the things that help or hinder achieving the goals of the IMPACT program.

9. How do you find the overall dispatch process?
    a. Can you think of things that help you to do your job or make it harder?
10. What helps you to successfully give community resource referrals when needed? Is this mainly handled by the IMPACT worker?
    a. Are there any barriers in this process?
    b. How is the cultural appropriateness of these resources taken into account?
11. Are there any barriers to successfully transferring individuals to the hospital when needed?
    a. Anything that helps this process?
12. How often is IMPACT unable to answer calls for service?
    a. What happens when IMPACT is not available?

13. How do you collaborate with the IMPACT worker to do your job?
    a. How about the hospital staff?
14. Overall, what makes a call run smoothly?
    a. What are common challenges that you haven't mentioned?
15. Can you think of any policies or procedures are facilitating or hindering the functioning of this program?
    a. Are there any policies or procedures that you would like to see developed?

Outcome

Next, I will be asking you about the outcomes of the IMPACT program.

16. How is the program achieving intended client outcomes?
    a. What might make this easier or prevent this from happening?
17. What do you think about the quality of care provided by the IMPACT team?
    a. How does the IMPACT program consider client's individual needs?
18. What is your overall perceptions on the resource saving of the IMPACT program compared to traditional police response? [Prompt: police resources; hospital resources]
19. What is your overall experience working on the IMPACT team?
    a. Are you proud or satisfied with the service you provide?
    b. Can you provide any insight on your overall job sustainability or burnout in this role?

Context

20. Lastly, the IMPACT model was designed and tested for large urban centres, do you believe that the IMPACT model is a good fit for Thunder Bay? Why or why not?
    Prompts:
    a. Community demographics?
    b. Geography?
    c. Police workforce size?
    d. Community resources?

21. Do you have any recommendations for IMPACT program or changes that you would like to see?

Is there anything else you would like to share?

Turn off recorder

Demographics

Before I let you go, I was wondering if I could ask you some demographic questions. This will not be captured on the audio recorder and I will write your answers on a separate piece of paper that will not be connected to your interview responses. Any demographic information will be reported globally and not connected to your organization or role, so for example the median age of interview participants was 46 and 56% of participants identified as male. If you would not like

to report this information or answer specific questions, feel free to respond ‘pass’. Are you comfortable answering these questions?

22. What is your age?
23. What is your gender identity?
24. Do you identify as a member of an equity-seeking group? An equity-seeking group refers to communities that face significant barriers to equal access, opportunities and resources due to disadvantage and discrimination. This may refer to groups assigned on the basis of gender, ethnicity, race, or sexuality, etc.
25. Do you identify as First Nations, Metis, or Inuit?

Thank you for your time.

Appendix B

Crisis Worker Interview Guide

Hello, my name is [NAME], I am a [ROLE] at Lakehead University under the supervision of Dr. Deborah Scharf. We currently have a contract with CMHA to evaluate the IMPACT project. Today I will be talking to you about the IMPACT project, both your role, and your overall perceptions of the program itself - how it's structured, how it runs, and its outcomes.

Just a quick reminder that this call is being audio recorded for research purposes. Is that okay with you?

Before we get started, I need to review a few pieces of information with you, and then obtain your verbal consent to participate.

- Did you have a chance to read the information letter we sent via email?
- Do you have any questions or concerns about any of its contents, or about the study in general?

Review key points of information letter:

- We promise to take all steps to maintain your confidentiality. The information you provide will not be linked to you or your practice in any way
- Your personal comments may be quoted. If they are, it will be done in a way that preserves your confidentiality.
- The audio recording from this interview will be transcribed. Once transcription is complete the audio will be destroyed. We will not write down any names or identifying information that might get mentioned on the call.
- This study may benefit you, as the program evaluation results such as emergent process improvements that create efficiencies for staff.
- IMPACT is a small program thus there is a chance that your contributions to this research may be recognizable to your colleagues despite our deidentification of the data. This is the only foreseeable risk associated with your participation in this study.
- You are a volunteer and can withdraw from the study at any time up until the point of submission of your data, and may choose not to answer any question
- There will be no negative repercussions should you decide to withdraw from the study at any time
- The data will be securely stored at Lakehead University for a minimum period of 5 years following completion of the research project
- The research findings can be made available to you upon request, we will be sharing the findings with your organization.
- By consenting to participate you will not be waiving any rights to legal recourse in the event of research-related harm

This interview will take approximately 45-60 minutes.
Have all of your questions and concerns been answered?
Do you agree to participate?

Consent Given: Y or N

Questions

General

1. Tell us about your role in the IMPACT program.
2. What formal education do you have?
3. What specific training did you receive for the IMPACT program?
4. How long have you been working with IMPACT?
5. What are your general impressions about the IMPACT program?
    a. Can you think of any primary benefits?
    b. What about challenges of this program?

Structure

6. Now, I would like to ask you about program resources. I will be mentioning different component and would like to hear about your opinions on how the program is resourced for each component?
    a. Staff
    b. Staff training and credentials… do you think that the training your received is appropriate for your position? What about other staff members? Is training consistent?
    c. Necessary equipment, these are things such as your own desk and chair, computers, phones, appropriate safety equipment, uniforms, or vest ID badges?
    d. Are you able to access private spaces if needed?
    e. Funding
    f. Are there any other resources that you can think of?
7. Overall, how do you think the resources of the program support or prevent the IMPACT program from achieving its goals?
8. Next, I would like to ask you about community resources. How do you think the community resources in Thunder Bay compliment the IMPACT program which relies on referrals to low-barrier community care? **[Context]**

Process

For the next few questions, I will be asking you about the functioning of the IMPACT team. When you think about these, I want you to think about the process of this program rather than outcomes. So, these are the things that help or hinder achieving the goals of the IMPACT program.

9. How do you find the overall dispatch process?
    a. Can you think of things that help you to do your job or make it harder?
10. What helps you to successfully give community resource referrals when needed?]
    a. Are there any barriers in this process?
11. Are there any barriers to successfully transferring individuals to the hospital when needed?
    a. Anything that helps this process?
12. How often is IMPACT unable to answer calls for service?
    a. What happens when IMPACT is not available?

13. How do you collaborate with the IMPACT worker to do your job?
    a. How about the hospital staff?
14. Overall, what makes a call run smoothly?
    a. What are common challenges that you haven't mentioned?
15. Can you think of any policies or procedures are facilitating or hindering the functioning of this program?
    a. Are there any policies or procedures that you would like to see developed?

Outcome

Next, I will be asking you about the outcomes of the IMPACT program.

16. How is the program achieving intended client outcomes?
    a. What might make this easier or prevent this from happening?
17. What do you think about the quality of care provided by the IMPACT team?
    a. How does the IMPACT program consider client's individual needs?
18. What is your overall perceptions on the resource saving of the IMPACT program compared to traditional police response? [Prompt: police resources; hospital resources]
19. What is your overall experience working on the IMPACT team?
    a. Are you proud or satisfied with the service you provide?
    b. Can you provide any insight on your overall job sustainability or burnout in this role? ?
20. To what extent do you believe the program provides high-quality and appropriate response to mental health calls?

Context

21. Lastly, the IMPACT model was designed and tested for large urban centres, do you believe that the IMPACT model is a good fit for Thunder Bay? Why or why not?
    Prompts:
    a. Community demographics?
    b. Geography?
    c. Police workforce size?
    d. Community resources?

22. Do you have any recommendations for IMPACT program or changes that you would like to see?

Is there anything else you would like to share?

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Demographics

Before I let you go, I was wondering if I could ask you some demographic questions. This will not be captured on the audio recorder and I will write your answers on a separate piece of paper that will not be connected to your interview responses. Any demographic information will be reported globally and not connected to your organization or role, so for example the median age of interview participants was 46 and 56% of participants identified as male. If you would not like

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23. What is your age?
24. What is your gender identity?
25. Do you identify as a member of an equity-seeking group? An equity-seeking group refers to communities that face significant barriers to equal access, opportunities and resources due to disadvantage and discrimination. This may refer to groups assigned on the basis of gender, ethnicity, race, or sexuality, etc.
26. Do you identify as First Nations, Metis, or Inuit?

Thank you for your time.

Appendix C

Hospital Staff and Leadership Interview Guide

Hello, my name is [NAME], I am a [ROLE] at Lakehead University under the supervision of Dr. Deborah Scharf. We currently have a contract with CMHA to evaluate the IMPACT project. Today I will be talking to you about the IMPACT project, both your role, and your overall perceptions of the program itself - how it's structured, how it runs, and its outcomes.

Just a quick reminder that this call is being audio recorded for research purposes. Is that okay with you?

[TURN ON RECORDER]

Before we get started, I need to review a few pieces of information with you, and then obtain your verbal consent to participate.

- Did you have a chance to read the information letter we sent via email?
- Do you have any questions or concerns about any of its contents, or about the study in general?

Review key points of information letter:

- We promise to take all steps to maintain your confidentiality. The information you provide will not be linked to you or your practice in any way
- Your personal comments may be quoted. If they are, it will be done in a way that preserves your confidentiality.
- The audio recording from this interview will be transcribed. Once transcription is complete the audio will be destroyed. We will not write down any names or identifying information that might get mentioned on the call.
- This study may benefit you, as the program evaluation results such as emergent process improvements that create efficiencies for staff.
- IMPACT is a small program thus there is a chance that your contributions to this research may be recognizable to your colleagues despite our deidentification of the data. This is the only foreseeable risk associated with your participation in this study.
- You are a volunteer and can withdraw from the study at any time up until the point of submission of your data, and may choose not to answer any question
- There will be no negative repercussions should you decide to withdraw from the study at any time
- The data will be securely stored at Lakehead University for a minimum period of 5 years following completion of the research project
- The research findings can be made available to you upon request, we will be sharing the findings with your organization.
- By consenting to participate you will not be waiving any rights to legal recourse in the event of research-related harm

This interview will take approximately 20-40 minutes.

Have all of your questions and concerns been answered?
Do you agree to participate?

Consent Given: Y or N

Questions

1. What is your role at TBRHSC?
2. What formal education do you have (e.g., nursing degree, physician etc.)?
3. What do you know about the IMPACT program, including its purpose and goals?
4. What is your understanding of how the IMPACT program is supposed to interface with the hospital?
5. Are there any policies or procedures that you can think of that facilitate or hinder the functioning of the IMPACT program?
6. To what extent is the hospital is adequately equipped to support the IMPACT program and its goals?
7. Are there any barriers or facilitators to assessing or admitting individuals who come to the emergency department via the IMPACT program?
    a. Can you think of any way to smooth this process?
8. Do you think the community of Thunder Bay is a good fit with the IMPACT model? Why or why not?
    a. How do you think the community resources in Thunder Bay compliment the IMPACT program which relies on referrals to low-barrier community care?
9. What other information would you like to share with us about your views on the value and function of the IMPACT program at TBRHSC and in Thunder Bay?
10. Do you have any recommendations for the IMPACT program or changes you would like to see?

Is there anything else you would like to share?

Turn off recorder

Demographics

Before I let you go, I was wondering if I could ask you some demographic questions. This will not be captured on the audio recorder and I will write your answers on a separate piece of paper that will not be connected to your interview responses. Any demographic information will be reported globally and not connected to your organization or role, so for example the median age of interview participants was 46 and 56% of participants identified as male. If you would not like to report this information or answer specific questions, feel free to respond ‘pass’. Are you comfortable answering these questions?

11. What is your age?
12. What is your gender identity?
13. Do you identify as a member of an equity-seeking group? An equity-seeking group refers to communities that face significant barriers to equal access, opportunities and resources

due to disadvantage and discrimination. This may refer to groups assigned on the basis of gender, ethnicity, race, or sexuality, etc.

14. Do you identify as First Nations, Metis, or Inuit?

Thank you for your time and participation.

Appendix D

Mental Health and Police Agency Leadership Interview Guide

Hello, my name is [NAME], I am a [ROLE] at Lakehead University under the supervision of Dr. Deborah Scharf. We currently have a contract with CMHA to evaluate the IMPACT project. Today I will be talking to you about the IMPACT project, both your role, and your overall perceptions of the program itself - how it's structured, how it runs, and it's outcomes.

Just a quick reminder that this call is being audio recorded for research purposes. Is that okay with you?

Before we get started, I need to review a few pieces of information with you, and then obtain your verbal consent to participate.

- Did you have a chance to read the information letter we sent via email?
- Do you have any questions or concerns about any of its contents, or about the study in general?

Review key points of information letter:

- We promise to take all steps to maintain your confidentiality. The information you provide will not be linked to you or your practice in any way
- Your personal comments may be quoted. If they are, it will be done in a way that preserves your confidentiality.
- The audio recording from this interview will be transcribed. Once transcription is complete the audio will be destroyed. We will not write down any names or identifying information that might get mentioned on the call.
- This study may benefit you, as the program evaluation results such as emergent process improvements that create efficiencies for staff.
- IMPACT is a small program thus there is a chance that your contributions to this research may be recognizable to your colleagues despite our deidentification of the data. This is the only foreseeable risk associated with your participation in this study.
- You are a volunteer and can withdraw from the study at any time up until the point of submission of your data, and may choose not to answer any question
- There will be no negative repercussions should you decide to withdraw from the study at any time
- The data will be securely stored at Lakehead University for a minimum period of 5 years following completion of the research project
- The research findings can be made available to you upon request, we will be sharing the findings with your organization.
- By consenting to participate you will not be waiving any rights to legal recourse in the event of research-related harm

This interview will take approximately 45-60 minutes.
Have all of your questions and concerns been answered?
Do you agree to participate?
Consent Given: Y or N

Questions

General

1. Tell us about your role at [organization].
    a. What hours/days do you work?
2. What formal education do you have?
3. How are you involved with the IMPACT program? Did you receive any specific training for this?
4. How long have you been working with IMPACT?
5. What are your general impressions about the IMPACT program?
    a. Can you think of any primary benefits?
    b. What about challenges of this program?

Structure

6. Now, I would like to ask you about program resources. I will be mentioning different component and would like to hear about your opinions on how the program is resourced for each component?
    a. Staff
    b. Staff training and credentials… do you think that the training your staff received is appropriate for the position? Is training consistent?
    c. Necessary equipment, these are things such as your own desk and chair, computers, phones, appropriate safety equipment, uniforms, or vest ID badge for the staff? For yourself?
    d. Funding
    e. Are there any other resources that you can think of?
7. Overall, how do you think the resources of the program support or prevent the IMPACT program from achieving its goals?
8. Next, I would like to ask you about community resources. How do you think the community resources in Thunder Bay complement the IMPACT program that relies on referrals to low-barrier community care? **[Context]**

Process

For the next few questions, I will be asking you about the functioning of the IMPACT team. When you think about these, I want you to think about the process of this program rather than outcomes. So, these are the things that help or hinder achieving the goals of the IMPACT program.

9. How do you find the overall dispatch process?
    a. Can you think of things that facilitate or hinder this process?
10. Can you think of any barriers or facilitators for IMPACT staff when giving community resource referrals?
    a. How does the program collaborate with community organizations to provide these referrals?
    b. Is the cultural appropriateness of these resources taken into account?
11. Are there any barriers to successfully transferring individuals to the hospital when needed?

   a. Anything that helps this process?
   b. How does the program collaborate with the hospital to ease this process?
12. How often is IMPACT unable to answer calls for service?
   a. What happens when IMPACT is not available?
13. How do partner agencies collaborate to implement this program?
   a. What about community agencies?
14. Can you think of any policies or procedures that are facilitating or hindering the functioning of this program?
   a. Are there any policies or procedures that you would like to see developed?
15. Can you think of anything else that either helps or hinders how the program is run?

Outcome
Next, I will be asking you about the outcomes of the IMPACT program.
16. How is the program achieving intended client outcomes?
   a. What might make this easier or prevent this from happening?
17. What do you think about the quality of care provided by the IMPACT team?
   a. How does the IMPACT program consider client's individual needs?
18. What is your overall perceptions on the resource saving of the IMPACT program compared to traditional police response? [Prompt: police resources; hospital resources]
19. What is your perception of IMPACT frontline workers' experiences?
   a. Can you provide any insight on satisfaction with service?
   b. Can you provide any insight on employee job sustainability or burnout? Is there high job turnover in this program?

Context
22. Lastly, the IMPACT model was designed and tested for large urban centres, do you believe that the IMPACT model is a good fit for Thunder Bay? Why or why not?

Prompts:
   a. Community demographics?
   b. Geography?
   c. Police workforce size?
   d. Community resources?

23. Do you have any recommendations for IMPACT program or changes that you would like to see?

Is there anything else you would like to share?

Turn off recorder

Demographics

Before I let you go, I was wondering if I could ask you some demographic questions. This will not be captured on the audio recorder and I will write your answers on a separate piece of paper that will not be connected to your interview responses. Any demographic information will be reported globally and not connected to your organization or role, so for example the median age

of interview participants was 46 and 56% of participants identified as male. If you would not like to report this information or answer specific questions, feel free to respond ‘pass’. Are you comfortable answering these questions?

24. What is your age?
25. What is your gender identity?
26. Do you identify as a member of an equity-seeking group? An equity-seeking group refers to communities that face significant barriers to equal access, opportunities and resources due to disadvantage and discrimination. This may refer to groups assigned on the basis of gender, ethnicity, race, or sexuality, etc.
27. Do you identify as First Nations, Metis, or Inuit?

Thank you for your time.

Appendix E

Site 'Ride-Along' Visit Protocol

Before we get started, I need to review a few pieces of information with you, and then obtain your verbal consent to participate.

- Did you have a chance to read the information letter we sent via email?
- Do you have any questions or concerns about any of its contents, or about the study in general?

Review key points of information letter:

- We promise to take all steps to maintain your confidentiality. The information you provide will not be linked to you or your practice in any way
- Your personal comments may be quoted. If they are, it will be done in a way that preserves your confidentiality.
- This study may benefit you, as the program evaluation results such as emergent process improvements that create efficiencies for staff.
- IMPACT is a small program thus there is a chance that your contributions to this research may be recognizable to your colleagues despite our deidentification of the data. This is the only foreseeable risk associated with your participation in this study.
- You are a volunteer and can withdraw from the study at any time up until the point of submission of your data, and may choose not to answer any question
- There will be no negative repercussions should you decide to withdraw from the study at any time
- The data will be securely stored at Lakehead University for a minimum period of 5 years following completion of the research project
- The research findings can be made available to you upon request, we will be sharing the findings with your organization.
- By consenting to participate you will not be waiving any rights to legal recourse in the event of research-related harm
- Lastly, you understand that the research team will take your name and telephone number for contact tracing purposes, and that this information will only be disclosed to health authorities (if requested) should a research team member or participant(s) contract COVID-19

Have all of your questions and concerns been answered?
Do you agree to participate?

Consent Given: Y or N

Date:

Time:

Shift:

Staff Present (i.e., one police officer, one IMPACT worker):

Office

Aspect	**Present (P) or Absent (A)**	**Additional Comments**
Desk for IMPACT		
Desk for police		
Office supplies accessible		
Written policies		
Protocols for IMPACT calls		
Phone		
Computer		
Program goals or mission accessible		
Additional		

Mobile Team

Aspect	**Present (P) or Absent (A)**	**Additional Comments**
Technology		
How did the call come in?		
PPE		
ID Badge/Vest		

Outerwear Prompt: Was this provided for you?		
Community support resources accessible		Cultural appropriate resources:
Risk assessment protocol		
Knowledge of best next step (i.e., referral; ED) demonstrated		
Reporting process (Police)		
CMHA reporting		
Additional		

Call Type

Type	# of Type
MH	

Outcomes

Outcome	# of Outcome
Emergency Department Consenting	
Emergency Department Involuntary	
Jail/Police	
Care of Service	
Care of Service with Family	
Care of Service with Staff	
Community Service	
RAAM	
Inpatient	
Medical EMS	
Outpatient	
Shelter	
Safe Bed	
Detox	
Unable to Locate	
Call Cancel	

Outcome Follow Up

Question	Police			Crisis Worker			Are answers consistent between partners?	
	Yes	No	N/A	Yes	No	N/A	Y	N
Do you believe this is an ED diversion?								
Why?								
Do believe this was an appropriate use of police resources?								
Why?								

Were you able to direct the client to the appropriate resources?								
Why?								
Did you feel equipped to answer this call?								
Any additional comment								
Additional								
Can you think of anything that helped or hindered call resolution in that call?								

Additional unprompted observations below:

Appendix F

Client Satisfaction Survey

Consent

Lakehead University, in partnership with Canadian Mental Health Association, are inviting you to participate in a feedback survey of the IMPACT program.

You are under no obligation to participate. Refusal to participate will in no way effect the service you receive. If you feel uncomfortable at any time, it is your right to refuse to be in the study, refuse to answer any question, or withdraw from the study at any time.

If you consent to participate, you will be asked to take part in a survey conducted online or over the phone, lasting approximately 10 minutes. You will be eligible to receive a $5 gift card as compensation for your time. Any information provided for you to receive your gift card will NOT be linked to your survey answers. All data collected for this study will be kept anonymous and confidential.

This research study has been reviewed and approved by the Lakehead University Research Ethics Board. If you have any questions related to the ethics of the research and would like to speak to someone outside of the research team, please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

Please note that the online survey tool used in the study, Qualtrics, is hosted by a server located in the USA. The US Patriot Act permits U.S. law enforcement officials, for the purpose of anti-terrorism investigation, to seek a court order that allows access to the personal records of any person without the person's knowledge. In view of this we cannot absolutely guarantee the full confidentiality and anonymity of your data. With your consent to participate in this study, you acknowledge this.

Depending on survey format:
[Online] I want to answer the survey [button]
[Phone] If you want to continue with the survey, please say 'yes'
[Paper] If you consent to answering this survey, please sign your name here: _______________

Please answer the following questions about the overall services received:

1. The services I have received have helped me deal more effectively with my current challenges.
   - o Strongly disagree
   - o Disagree
   - o Agree
   - o Strongly agree
   - o Not Applicable
2. I think the services provided here are of high quality.
   - o Strongly disagree

- Disagree
- Agree
- Strongly agree
- Not Applicable

3. I felt safe while receiving services that were being provided.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
   - Not Applicable
4. Staff helped me connect to ongoing supports and services.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
   - Not Applicable

Please answer the following questions about the IMPACT/mental health workers

5. I was treated with respect by program staff.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
   - Not Applicable
6. Staff were sensitive to my culture and identity (e.g., religion, ethnic background, race, gender, sexual orientation)
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
   - Not Applicable

Please answer the following questions about the police officers present

7. I was treated with respect by program staff.
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
   - Not Applicable
8. Staff were sensitive to my culture and identity (e.g., religion, ethnic background, race, gender, sexual orientation)
   - Strongly disagree
   - Disagree
   - Agree
   - Strongly agree
   - Not Applicable

If you have anything else you would like to note about the services that you received or the staff, please let us know in the space below.

9. Do you have anything you would like to add?
   [Text box]

Please answer the following demographic questions if you are comfortable answering:

10. Do you identify as a member of an equity-seeking group? An equity-seeking group refers to communities that face significant barriers to equal access, opportunities and resources due to disadvantage and discrimination. This may refer to groups assigned on the basis of gender, ethnicity, race, or sexuality, etc.
    - Yes
    - No
    - Prefer not to say
11. Do you identify as a First Nations, Metis, or Inuit?
    - Yes
    - No
    - Prefer not to say
12. What is your gender identity?
    - Male
    - Female
    - Indigenous or other cultural gender minority (e.g., two-spirit);
    - Something else (e.g., gender fluid, non-binary), please specify: _
13. What is your age? _________________

Online Survey: You will now be sent to a separate survey link to provide your email address or mailing address to receive your $5 gift card compensation if you choose.

Phone Survey: If you choose, please provide your email address or mailing address to receive your $5 gift card compensation. We will store this data separately from your responses.

Paper Copy: If you choose, please provide your email address or mailing address below to receive your $5 gift card compensation. We will transfer your response to a digital copy without your contact information and then destroy the paper copies. All contact information will only be used for compensation purposes and will not be associated with your response.
Email:
Mailing Address:

Appendix G

Qualitative Analysis Themes

Theme	*Subtheme*	Description
DOMAIN ONE: CONTEXT		
Meeting Community Needs		The MCIT model meets community needs by addressing the high proportion of social service calls, tailoring training towards the needs of the community, and by using an approach that is better suited for community demographics.
The Northern Context		Contextual factors of Northern Ontario, including its geographic isolation, and extreme temperatures.
	Workforce	Workforce issues in the North affecting how programs are staffed and function.
	Police Mandate	Police mandate in the Northern context or other smaller communities has a larger social services component than traditional police mandate.
Complimentary Community Resources		Services available that compliment a program that relies upon providing low-barrier referrals to operate.
	A Fair Amount	A fair variety of different community-based services in Thunder Bay.
	Resource Accessibility	The relative accessibility of existing community-based resources.
	Resource Gaps	Gaps in the different areas of services available, including long-term services.
	Crisis-Specific Services	Different crisis-specific service options are critical to the operation of the MCIT.
DOMAIN TWO: STRUCTURES		
Training		Different trainings that contribute to the knowledge base of IMPACT frontline staff for them to fulfill their role.
Equiptment/Uniforms		The equipment and different uniforms necessary for IMPACT frontline employees.

Space	The co-located office space for crisis workers.
Staffing	How the program is staffed for each role.
Staffing Shortages	Shortages in the number of crisis worker staff and number of IMPACT-trained officers.
Staff Fit	The relative fit between the employee and the frontline IMPACT staff, including past experience and personality or character traits.
Employee Benefits	Employee benefits that support the health and vitality of frontline employees.
Policies and Procedures	Policies and procedures across agencies that may affect how the IMPACT program operates.
DOMAIN THREE: PROCESS	
The Dispatch Process	The overall process of dispatching the IMPACT team to calls.
Responding to Non-Mental Health Calls	The IMPACT team responding to calls for service that are not mental health-related.
Call Volume and Triage	The high mental health call volume and how the team is triaged to these calls.
Call Resolution	The process of resolving a call for service.
Diversion, Crisis De-escalation and Referrals	Diverting individuals from the hospital or jail by de-escalating crisis situations and providing referrals to community-based services.
Hospital Transfers	Transfers to the hospital, either under the Mental Health Act or voluntary.
Nowhere Else to Go	The lack of suitable places for someone experiencing crisis other than the hospital at times.
Service Accessibility	The relative accessibility of the IMPACT program, including possible gaps in service.
Collaboration	How different individuals and agencies collaborate to support the operation and goals of the IMPACT program.
Within the IMPACT Program	How individuals collaborate within the IMPACT program (i.e., police officers and crisis workers, leadership and frontline, inter-agency)

With Community Agencies	How the IMPACT program collaborates with community agencies, including the hospital.
DOMAIN FOUR: OUTCOMES	
Client Outcomes	The different outcomes of clients.
Client Dispositions	The dispositions of clients after contact with the IMPACT team.
Client Experience	The experience of service-users with the IMPACT program.
Quality of Care	The quality of care provided by IMPACT.
Program Efficiences	The general savings of resources through the IMPACT program, including police, hospital, and community savings.
Provider Experience	The experience of frontline staff.
Job Satisfaction	The reported job satisfaction of frontline staff.
Burnout	Job exhaustion of frontline staff.
Support	How frontline staff are supported.