Victim Services' Implementation of Mobile Tracking Systems

for Victims of High-Risk Gender-Based Violence Cases in Ontario

by

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A thesis

presented to the University of Waterloo

in fulfillment of the

thesis requirement for the degree of

Master of Arts

in

Sociology

Waterloo, Ontario, Canada, 2023

Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including

any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Since 2012, Ontario Victim Services providers have been a leading force in implementing Mobile Tracking Systems, a technological device some victim advocates and law enforcement officials believe will reduce risks in gender-based violence cases. The Mobile Tracking System resembles a small pager-like device that clients carry at all times. When activated in a high-risk gender-based violence emergency, the device aims to facilitate timely law enforcement assistance by emitting a GPS tracking signal and alerting first responders to a 'Priority 1' call. Mobile Tracking Systems have undergone a rapid increase in attention by the media, government, service providers, and wider public as the devices are perceived to be a safety-enabling technology for gender-based violence cases. Mounting calls to fund such technologies have emerged in light of pandemic safety measures and during a 2022 Coroner's Inquest held to investigate a triple femicide in Renfrew County, Ontario. In this Inquest, the Jury recommended that Mobile Tracking System technologies be funded by the Government of Ontario, while recently in Quebec, 41 million dollars was invested into GPS tracking technologies for gender-based violence cases. Despite gaining substantial traction in public and media discourse, Mobile Tracking Systems have been underrepresented in scholarly literature. To respond to this gap, this thesis employs qualitative methods to examine Mobile Tracking Systems in the context of gender-based violence cases in Ontario. In particular, through the examination of 91 textual documents and 10 semi-structured interviews with service providers involved in case referral and the administration of Mobile Tracking Systems, this study traces the history, development, and use of Mobile Tracking System devices in the context of gender-based violence cases in Ontario, and investigates the impact of panic button alarms on criminal justice responses to gender-based violence. To examine Mobile Tracking Systems, this thesis draws on relevant theoretical frameworks in the fields of Science and Technology Studies and critical perspectives on law and criminal justice. By tracing the development of panic button alarms to their current use in Ontario, this thesis reveals a shift toward pro-carceral safety measures that embrace technology as a perceived tool to reduce gender-based violence. As this thesis details, approaching safety work in this manner not only reflects, but also perpetuates particular assumptions about victims that pressure them to align their behaviour with the goals of the criminal legal system. The thesis argues that designing and administering a technological tool for victims of gender-based violence that centers the criminal legal system has direct impacts on victims when seeking support. The findings of this project have implications for Ontario Victim Services providers, police services in Ontario, and other agencies that support victims of gender-based violence cases, as they draw attention to how the implementation of panic button alarms as a perceived safety-enabling technology directly impact victims accessing support services for gender-based violence cases. Finally, the study's findings can inform policy and practice related to the GPS tracking technologies in the context of mounting calls to fund panic button alarm technologies in Ontario.

Acknowledgements

To the individuals I name below, the completion of this thesis would not have been possible without each of you, thank you.

To Andrea, it has been such a privilege to have you as my supervisor. You have been instrumental in my success and I have grown immensely under your guidance. You have instilled a passion for qualitative research in me that I am forever grateful for! Thank you for your sound guidance, thoughtful feedback, and consistent encouragement through electronic high fives! I thank you for the remarkable work you do to support graduate students.
To my committee members, Alli and Rashmee, thank you for your expertise, sincere engagement, and thoughtful feedback throughout this project. It was a privilege to discuss this work with you at my thesis defence and I have gained valuable insights from each of you. I thank you for your time and dedication to this project.

A special thank you is extended to the members of the "gender-based violence reading group". Our monthly discussions have been filled with inspiring dialogue, critical reflection, and collective encouragement as we address important issues related to gender-based violence.

To my parents, thank you for supporting me as I pursued postsecondary education. I am immensely grateful for your generosity, and as the first university graduate in our family, I have been both encouraged and motivated by your dedication to my success in graduate studies. I am also forever indebted to my mom for being my on-demand proofreader. There is not a page in this thesis that has not been carefully reviewed by you numerous times!

Thank you to my partner, Dominick, for your encouragement as I took on this project. You have provided a space to discuss my ideas, comedic relief in the stressful moments, and reacted with an equal amount of enthusiasm each time I submitted a draft of this thesis.

Finally, I would like to extend sincere thanks to the participants that took the time to contribute their perceptions and experiences to this research.

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Chapter 1: Introduction

In June 2022, a Coroner's Inquest was held into the deaths of Carol Culleton, Anastasia

Kuzyk, and Nathalie Warmerdam, victims of a 2015 triple femicide in Renfrew County, Ontario.

This Inquest was held to "explore the circumstances of their deaths, focusing on the dynamics of

gender-based intimate partner violence and femicide in rural communities" (Office of the Chief

Coroner, 2022a, n.p.). Following the examination of their deaths, the Inquest jury put forward 86

recommendations to the provincial government that focused on changes to policy and practice.

One recommendation called for "funding for mobile tracking system alarms and other security

supports for survivors of IPV" (Office of the Chief Coroner, 2022b, p. 4). Notably, one of the

femicide victims, Nathalie Warmerdam, had a Mobile Tracking System that was not deployed at

the time of her death.

Since the release of the Inquest recommendations, reactions have largely focused on the

potential for GPS tracking technology to assist victims[1] experiencing gender-based violence

(GBV). Messages disseminated by the media have agreed that "GPS tracking technology may be

one solution" (Laucius, 2022, para. 20) to gender-based violence, while the Globe and Mail

reported on how "proponents argue that GPS monitoring allows victims to get their lives back,

eliminating the need to constantly be looking over their shoulders" (Hayes, 2022, para. 4).

However, some professionals, including Pamela Cross, a lawyer at End Violence Against

Women-Renfrew County, highlight the need for deeper discussion related to the impact of

utilizing GPS monitoring technology; "I just want to feel like before we jump holus-bolus into

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[1] My use of the term *victim* is deliberate. Throughout this thesis, I use the term victim to align
with terminology used in Mobile Tracking System programs and by service providers. The term
may be interchanged with *client* to refer to one's status as a client of the Mobile Tracking System
program.

this, we've had some of those deep discussions about ... those kinds of possibilities and

responses to those possibilities" (Cross as cited in Hayes, 2022, para. 25).

Since 2012, Ontario Victim Services[2] providers have been a leading force in

implementing Mobile Tracking Systems (MTS), a technological device some victim advocates

and law enforcement officials believe will reduce risks in gender-based violence[3] cases involving

sexual violence, intimate partner violence (IPV), stalking, and sex trafficking (Crosier, 2020).

The Mobile Tracking System is a continuation of the Domestic Violence Emergency Response

System (DVERS)[4] program administered by Ontario Victim Services, which involved alarms

affixed in clients' homes and when activated, notified law enforcement to an intimate partner

emergency. Now, MTS devices, commonly referred to as GPS panic button alarms, resemble a

small pager-like device that a client carries at all times. When activated in a high-risk gender-

based violence[5] emergency, the device aims to facilitate timely law enforcement assistance by

alerting first responders to a 'Priority 1' call and subsequently, equips them with the location

[2] Victim Services provide "immediate crisis intervention, emotional support and referrals to individuals affected by crime and tragic circumstances" (Victim Services of Waterloo Region Mission, 2021, para. 1).
[3] In the study, interview participants often noted the intersecting nature of sexual violence and intimate partner violence. As such, the term 'gender-based violence' is used to refer to the nature of cases that typically involve Mobile Tracking Systems. However, the problems that characterize sexual violence versus intimate partner violence in the criminal justice system differ and will be addressed in Chapter 2.
[4] The Domestic Violence Emergency Response System (DVERS) has also been referred to as *SupportLink* across various agencies' historical records when referring to panic alarm programs, though there are slight differences between the programs. These historical programs will be addressed in Chapter 3.
[5] The term 'high-risk gender-based violence' is used by Victim Services and other criminal justice system professionals to refer to cases of sexual violence, intimate partner violence, stalking, and sex trafficking that have undergone review before the *high risk case review table* in each jurisdiction and have met the threshold for a 'high-risk' designation. This designation is added to the Canadian Police Information Centre (CPIC) database. The process of applying this designation will be discussed in Chapter 5.

coordinates of the client, the client's personal information, and police reports of previous violent incidents associated with the client.

Recently, increased media attention has focused on funding GPS tracking technologies in light of the Renfrew Inquest recommendations and the province of Quebec investing 41 million dollars in offender and victim tracking technologies (Wong, 2023). Although Mobile Tracking Systems have been in use for over a decade in the province of Ontario, funding for MTS programs remains beyond the purview of the provincial government. Up until 2022, Ontario Victim Services were funded by the Ministry of Attorney General's Office, though Victim Services underwent a change in oversight in spring 2022 to the Ministry of Children, Community and Social Services. This change occurred "to ensure a more coordinated approach to delivering services such as crisis intervention and violence prevention programs" (Children, Community, and Social Services, 2021, para. 1). The Ministry of Children, Community and Social Services maintains the previous Ministry's stance by not funding Mobile Tracking System programs, though the Ministry of the Solicitor-General noted that it is "carefully reviewing the Renfrew County inquest recommendations" (Hayes, 2022, para. 23). The current gap in funding has led select Victim Services sites, who choose to offer this service program, to administer Mobile Tracking System programs through alternative funding sources, such as private donations and community fundraising. Despite the increased attention on Mobile Tracking Systems, the devices have received little scholarly attention. This lack of attention impacts how advocates and law enforcement officials perceive the use of technology to reduce risks in gender-based violence cases.

Additionally, since the onset of the COVID-19 global pandemic, Victim Services have been confronted with an increased demand for Mobile Tracking Systems. Charlene Lovegrove, a

corporate manager of one Victim Services site in Ontario, noted that "since the coronavirus pandemic, 'We've a surge in requests for these alarms; we're having more and more people apply for them'" (as cited in Botting, 2020, para. 5). Furthermore, the media, policymakers, and scholars have noted that the COVID-19 pandemic has been "a catalyst for gender-based violence" (Violence Against Women Learning Network, 2020, p. 1). Emerging literature has demonstrated that rates of domestic violence have increased as a result of "stay-at-home directives, which effectively require abused women to isolate with their abusers as a pandemic safety measure" (Quinlan and Singh, 2020, p. 572). Maryam Monsef, Canada's Minister for Women and Gender Equality, declared that these isolation measures have created a "powder keg" (as cited in Patel, 2020, para. 3) for abusers as frontline organizations have witnessed a 20-30% increase in rates of gender-based violence. Stemming from the rise in gender-based violence during the pandemic and increased pressure on social supports, service providers are turning to technology for service delivery (Sapire et al., 2022). In the context of Ontario, some Victim Services providers are calling for further financial supports to obtain and distribute additional MTS devices to clients (Renzella, 2020; Botting, 2020). For instance, Victim Services of Haldimand-Norfolk-Mississaugas of the Credit First Nation requested $2,500 in funding to purchase additional Mobile Tracking System for clients experiencing gender-based violence in their community (Botting, 2020). A heightened reliance on technology causes its use in Ontario to trend upward as Mobile Tracking Systems are positioned as a technological safety solution for victims of gender-based violence cases in Ontario.

Mobile Tracking Systems have undergone a rapid increase in attention by the media, government, service providers, and wider public as they are positioned to offer a 'solution' to gender-based violence. Mounting calls to fund such technologies have emerged during the

Renfrew Inquest and in light of pandemic measures, along with surrounding provinces taking significant action to fund GPS monitoring technologies for gender-based violence cases. Together, these circumstances position Mobile Tracking Systems as a perceived safety device worthy of timely empirical exploration. This empirical exploration is necessary to understand the impact of employing GPS tracking technologies as a perceived solution to reduce risk for individuals experiencing gender-based violence in Ontario.

Research Problem

Considering these recent developments, it is surprising that limited scholarly attention has been paid to the implementation of Mobile Tracking System programs in cases of gender-based violence across the province. The device and its use for victims of gender-based violence in Ontario have remained largely unexplored by social scientific researchers. While scholars have examined criminal justice responses to gender-based violence and some GPS tracking technologies for gender-based violence, a limited volume of research has investigated the development and implementation of these technologies, along with the impact these technologies have on the criminal justice system. Finally, to my knowledge, no academic literature has examined the specific device utilized in Ontario, the Mobile Tracking System, in the context of gender-based violence cases.

Using qualitative methods, this thesis examines the history, development, and use of Mobile Tracking Systems in the context of gender-based violence cases in Ontario, and investigates the impact of these devices on criminal justice responses to gender-based violence cases. Despite gaining substantial traction in public and media discourse, Mobile Tracking Systems, particularly in Canada, have been underrepresented in scholarly literature. Empirically, this thesis will make contributions to this literature through analyzing Mobile Tracking Systems

in the particular context of Victim Services regions throughout Ontario. This thesis will also make theoretical contributions to the literature on panic buttons for gender-based violence by engaging with theoretical concepts, such as Jasanoff's (2015) "sociotechnical imaginary" (p. 4) and Benjamin's (2019) "discriminatory design" (p. 5), to investigate this particular technology. This thesis will also make methodological contributions as I draw on a wide range of data sources, including textual documents and interview transcripts, which marks a unique method of examination into the use of technology as a perceived safety-enabling device for victims of gender-based violence in Ontario. Overall, these findings will contribute to knowledge surrounding the criminal justice system's implementation of technology as a tool in response to gender-based violence cases in Ontario. Future scholarly literature on panic button alarms could take on new methodological directions, such as increasing the geographical scope of research on these devices across Canada.

Research Questions and Methodological Approach

The interjection of technology to combat and respond to gender-based violence is both fascinating and frightening. Utilizing technology as a technoscientific solution to an inherently social problem reflects a broader faith in technology that ignores the social, political, and structural reasons for why gender-based violence exists. This reality provides an intriguing point of departure to examine the implementation of Mobile Tracking System devices for gender-based violence cases in the province of Ontario.

Drawing on relevant theoretical frameworks in the fields of Science and Technology Studies (STS) and critical perspectives on law and criminal justice, this study examines the creation and implementation of Mobile Tracking Systems, specifically in relation to Victim Services organizations in Ontario. For this study, my overarching research question is: How have

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Mobile Tracking Systems been implemented in Ontario Victim Services to address gender-based violence, and what are the implications on criminal justice responses to gender-based violence in Ontario? Additional sub-questions to support this study include:

1. How was the Mobile Tracking System device designed?

2. For what purpose and to whose benefit was the Mobile Tracking System device designed?

3. How is the Mobile Tracking System device perceived and used in cases of gender-based violence in Ontario?

4. What impacts have Mobile Tracking Systems had on how police and Victim Services respond to cases of gender-based violence in Ontario?

To respond to these research questions, this thesis employs a qualitative, interpretivist approach to inform my data collection methods and analysis. I conducted a textual analysis of 91 documents and carried out a multi-site analysis of three sites comprised of 10 semi-structured interviews to investigate the development, use, and impact of Mobile Tracking System devices in Ontario. Participants from three chosen interview sites who were directly involved in the design, administration, referral, or response to Mobile Tracking System devices in Ontario were recruited to participate in this study. Participants included Victim Services staff, law enforcement, shelter staff, and other community-based support program staff. This textual and semi-structured interview data was then analyzed through the application of Timmermans and Tavory's (2012) abductive approach to qualitative analysis[6].

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[6] Timmermans and Tavory's (2012) abductive approach to qualitative analysis is discussed in more detail in Chapter 3.

Together, these questions, developed through relevant theoretical framing, will broadly begin to unpack the intertwined nature of technology and gender-based violence in this context. To date, these questions have not been addressed or responded to in the existing literature. As a result, these research questions provide valuable contributions to the fields of Science and Technology Studies, critical perspectives on law and criminal justice, and support a broader understanding related to the implications of utilizing technology in response to gender-based violence cases.

Analytical Perspective

Given Mobile Tracking Systems' position as a perceived safety-enabling device by the criminal justice system in response to gender-based violence, this thesis draws on relevant theoretical frameworks in the fields of Science and Technology Studies and critical perspectives on law and criminal justice to consider this object of study. Amsterdamska, Hackett, Lynch, and Wajcman (2008) assert that Science and Technology Studies "has become an interdisciplinary field that is creating an integrative understanding of the origins, dynamics, and consequences of science and technology" (p. 1). Additionally, STS encourages researchers to critically examine the social construction of artifacts (Sismondo, 2018). Thus, Science and Technology Studies is particularly relevant in the examination of Mobile Tracking Systems given the perceived value of employing technology to reduce risk for gender-based violence cases in Ontario.

Next, critical perspectives on law and criminal justice frame how I consider my data as this analytical framework draws attention to the complications embedded in our carceral responses to gender-based violence. Specifically, this framework draws my attention to the problematic assumptions rooted in carceral responses, along with the subsequent complications that arise when the criminal legal system is viewed as both the default and superior mechanism

to respond to gender-based violence in Ontario. As I analyzed my data, these theoretical frameworks have been critical in directing my attention to the notions towards victims that are reflected and perpetuated through the use of Mobile Tracking Systems as a tool for reducing risk in gender-based violence cases.

I draw on specific theoretical tools to examine Mobile Tracking Systems. I use Jasanoff's (2015) conceptualization of the "sociotechnical imaginary" (p. 4) to examine the trust placed in technology to address gender-based violence cases in Ontario. Sociotechnical imaginaries "encode not only visions of what is attainable through science and technology, but also of how life ought, or ought not, to be lived; in this respect they express a society's shared understandings of good and evil" (p. 4). These imaginaries are "collectively held, institutionally stabilized, and publicly performed visions of desirable futures" (p. 4) that are sustained through shared understandings of the social world and order and are favourable to advancements in science and technology. In addition to helping me think about the social and technical design decisions involved in Mobile Tracking Systems, this concept also draws awareness to some service providers' shared ideas that view Mobile Tracking Systems as making victims of high-risk gender-based violence safer in their day-to-day lives.

The concept of socio-technical imaginaries shares similarities with "techno-optimism" (Granja, 2021, p. 254). Both terms have been used to interrogate the faith and trust placed in science and technology. As critical scholars have argued, a techno-optimist view contends that the implications of technology on society involve a largely positive effect, and in turn, innovation supports human actors to achieve considerable progress across a variety of spheres including the economic, political, social, and cultural (Quinlan, 2021; Bove, 2021; Granja, 2021). Utilizing this theoretical tool allows me to consider how Mobile Tracking Systems sustain

beliefs surrounding technology's ability to make society safer and more just for victims of gender-based violence.

Additionally, to explore the design of Mobile Tracking Systems, I draw on Benjamin's (2019) concept of "discriminatory design" (p. 5), which she suggests involves the "investigation [of] how social biases get coded, not only in laws and policies, but in many different objects and tools that we use in everyday life" (p. 5). Discriminatory design draws attention to technology's role in governing public life through obscured policy and design considerations that in turn, serve to "enforce social boundaries and deepen inequalities" (p. 6). Applying Benjamin's concept of discriminatory design allows me to critically analyze the design decisions and subsequent implications that arise when Mobile Tracking Systems are employed by Victim Services for victims experiencing gender-based violence that are deemed high-risk.

Overall, these theoretical frameworks and concepts provide valuable guidance when analyzing the history, development, use, and impact related to Mobile Tracking Systems employed by Victim Services in Ontario for victims of gender-based violence. Together, these frameworks and related concepts generate theoretical discussions and contributions in an area where such devices have undergone limited examination.

Outline of Chapters

In Chapter 2, I provide a background on current literature related to the intersections of gender-based violence and the criminal justice system, technology, and the COVID-19 pandemic. Chapter 2 analyzes current research available on panic button alarms for responding to domestic violence, as well as literature on: 1) the criminal justice system's inadequacies in responding and attending to the needs of survivors of gender-based violence, and differentiates the challenges faced by survivors of intimate partner violence compared to survivors of sexual

violence, 2) the use of technology within the criminal justice system as a tool for harm and safety in cases of gender-based violence, and 3) the effects of increasing rates of gender-based violence during the pandemic.

Following this, Chapter 3 outlines the methodological steps I have taken to examine Mobile Tracking System's use in the context of gender-based violence cases in Ontario. This chapter discusses the epistemological approach to the current study, highlighting the value of an interpretivist qualitative approach to consider the implementation of technology as a response to gender-based violence and how individuals make sense of these experiences. Chapter 3 also offers a discussion of the importance of reflecting on my social location and positionality as a past Crisis Responder with Victim Services to understand the ways this experience may have impacted the research process. Finally, this chapter details the sampling techniques, recruitment strategies, access challenges, data collection, and data analysis strategies utilized across this study.

Next, the two analytical chapters draw on textual documents and interview data to illustrate significant themes which emerged throughout the study. Chapter 4 traces the emergence of panic button alarm programs to the 1980s, while pro-arrest policies for domestic violence were gaining traction and simultaneously, high-profile domestic violence cases dominated media discourse. Consequently, increasing attention given to domestic violence, coupled with the quest for innovative solutions to solve "the issue of domestic violence" (Ashcraft, 2000, p. 3) created the circumstances for a technological fix to emerge as a perceived 'solution' to domestic violence. To illustrate this, I draw on Jasanoff's (2015) "sociotechnical imaginary" (p. 4), Kim's (2015) "carceral creep" (p. 24) and Benjamin's (2019) "discriminatory design" (p. 5) to examine the device's development through ADT AWARE, expansion into

Canada through DVERS, and current deployment of Mobile Tracking Systems as a response mechanism to gender-based violence cases in Ontario.

Chapter 5 highlights the current use and impacts of Mobile Tracking System offered by select Ontario Victim Services. This analytical chapter details the impact of employing a techno-optimist approach to reduce risk in gender-based violence cases. In particular, this chapter reveals the ways in which Mobile Tracking System programs are intertwined with the criminal justice system, and how this not only reflects, but perpetuates a particular perception of "ideal victim" (Christie, 1986, p. 18) behaviour when seeking support. Eligibility for the Mobile Tracking System program is hinged on victims cooperating with the prosecutorial aims of the criminal justice system and consenting to invasive monitoring practices. When victims do not cooperate with these expectations, access to this technology intended to reduce risk in gender-based violence cases can be revoked. Broadly, these chapters explore the complex intersections of technology, perceptions of safety, and criminal justice responses to gender-based violence through an in-depth account of Mobile Tracking System programs in Ontario.

Finally, the discussion in Chapter 6 provides a broader reflection on the themes in this thesis as it considers the impact of employing technology as a perceived safety-enabling response for gender-based violence in the criminal justice system. This chapter also offers reflections on future research directions in relation to gender-based violence and technology, including an expansion of analytical work on the impact of tracking technologies, such as *SafeTracks GPS Canada* currently in use across other provinces in Canada.

Chapter 2: Background

Situating Mobile Tracking Systems in the Literature

Mobile Tracking Systems in the context of gender-based violence cases in Ontario remain understudied. Existing literature has evaluated other forms of electronic monitoring and panic button programs across the globe (Römkens, 2006; Tumen and Ulucan, 2019; Granja, 2021). However, limited scholarly research has considered this technology and its intersection with gender-based violence and the criminal legal system in the Canadian context and through the analytical perspectives drawn on in the current study.

A breadth of literature considers the criminal legal system's flawed responses to gender-based violence allegations (Doolittle, 2017; Perrault, 2015; Murphy-Oikonen et al. 2022), the impacts of utilizing technology as a response to gender-based violence (Turgoose and McKie, 2021; Granja, 2021), and the increased reliance on technology that has been brought about through the COVID-19 pandemic (Sapire et al., 2022; Slakoff et al., 2020). However, this literature has focused primarily on an American context, with little attention to the context in Canada. The Mobile Tracking System device is currently only utilized in Canada; as such, it is relevant to consider these devices' use in the Canadian context. This study offers valuable contributions to the literature as it investigates the impact of these technological devices on criminal justice responses to gender-based violence in Ontario.

I begin this chapter with a literature review that examines the intersections of technology, gender-based violence, and the criminal justice system. Specifically, this chapter reviews existing academic literature on panic button alarms in the context of gender-based violence. This chapter then discusses the inadequacies of the criminal justice system in responding to the needs of survivors of gender-based violence, with a particular focus on intimate partner violence and

sexual violence. This chapter will also discuss the use of technology in the context of gender-based violence as understood through its dual use as a tool for safety and harm. Next, this chapter provides a review of current literature addressing heightened violence and technology reliance realized during the COVID-19 pandemic. I conclude this chapter by locating my project's contributions within existing literature on the intersections of technology, gender-based violence, and the criminal justice system.

Criminal Justice Responses to Gender-Based Violence

The Canadian criminal legal system has a flawed record in responding to gender-based violence allegations and attending to survivors' needs (McQueen et al., 2021; Guo, 2021; Doolittle, 2019). Acts of gender-based violence, particularly domestic violence and sexual assault, remain among the most under-reported crimes in Canada (Perrault, 2015), while reported instances of assault are often deemed unfounded by police with no investigation to follow (Doolittle, 2017).

Survivors of sexual violence and intimate partner violence often face unique challenges when disclosing experiences of violence to law enforcement. While sexual violence survivors' cases are often plagued with negligence (Murphy-Oikonen et al., 2022; Doolittle, 2017), intimate partner violence survivors' cases are characterized by the overreach of the criminal justice system through acts such as mandatory arrest policies (Goodmark, 2009; Whynacht, 2021; Stoever, 2019; Kim, 2019). While each form of violence uniquely intersects with the criminal justice system, neither approach adequately serves survivors of gender-based violence.

There is a significant body of literature that has been published over the past several decades detailing how the criminal justice system has inadequately attended to survivors of gender-based violence. Estrich (1986) conducted an historical analysis of American case law to

gain insight into the archetype of the "real rape" (p. 1088) victim. Through examining the criminal legal response's system to survivors of sexual violence, Estrich provided an expanded understanding of rape in the law as she distinguished two forms of rape. First, "traditional rape" (p. 1092) closely resembled a violent stereotypical stranger rape and was recognized by the legal system as a crime. Contrastingly, a "non-traditional rape" (p. 1092) may have involved uncertainty, a known assailant, less violence, or injuries not visibly inflicted. In these cases, Estrich argued that the law, as demonstrated through statutes and case outcomes, does not recognize these women's experiences as a crime. When a crime has not taken place in the eyes of the law, "fault, if any is to be recognized, belongs with the woman" (p. 1092). Consequently, a dominant narrative of a "real rape" (p. 1088) victim is revealed to be legitimized and re-inscribed through criminal legal decisions, while others are ostracized from the scope of the criminal legal system's response to sexual violence.

In a further critique of criminal justice responses to gender-based violence, Goodmark (2009) traces the evolution and examines the impact of mandatory interventions in domestic violence cases. Goodmark identifies how domestic violence "policy revolution" (p. 2) through mandatory arrest and no-drop prosecution reduces women's discretion in their lived experiences of violence. This carceral overreach "marginalize[s] autonomy, serving women who share the goals of the system but disenfranchising those with divergent goals" (p. 4). Goodmark advocates for an anti-essentialist feminist approach that brings to light "the complexity of and differences among [women]" (p. 45) in order to honour the goals of those who have experienced gender-based violence.

Following a related narrative of victim experiences in the criminal justice system, Martin and Powell (1994) argued that the criminal justice system perpetrates a "second assault" (p. 853)

against sexual assault victims. The second assault materializes through victim experiences of re-traumatization during their engagement with the criminal legal system while pursuing justice post-assault. Martin and Powell highlighted that organizational frameworks positioned to respond to sexual assault are often designed towards the needs of the organization rather than the needs of victims. In consequence, the needs of systems versus the needs of survivors run counter to one another; "Whereas the survivor needs to be believed and supported, the legal system needs to win cases" (Ahrens, 2006, p. 271). This approach results in victims facing continuous doubt, embarrassment, and abuse when they engage with legal organizations post-assault (Martin and Powell, 1994).

In a further examination of victim credibility in sexual assault cases, Sheehy (2012) comprehensively examines women's sexual assault in Canada through considering multiple socio-legal aspects, including legal discourses, cultural stereotypes, and myths that work to deny the impact and importance of sexual assault on victims in Canada. Within this collection of essays, Teresa DuBois investigates the effect of the landmark 1998 Jane Doe case in Toronto. DuBois highlights that police services in Canada continue to discredit their accounts of victimization through deeming cases, wrongfully, as unfounded. "Wrongful unfounding" (p. 197) of sexual assault cases stems from biased assumptions in police officers' assessments of women's credibility, and this labelling continues to occur at a rate higher than any other crime in Canada. These decisions impact victims' ability to seek justice through the criminal legal system.

Following a related narrative, Murphy-Oikonen, McQueen, Miller, Chambers, and Hiebert (2022) investigate women's first-hand accounts of being disbelieved by Canadian law enforcement officers during a sexual assault report. Murphy-Oikonen et al. note that one in five sexual assaults reported to police are determined to be baseless, highlighting that dismissal of

sexual violence has become common practice for Canadian police officers (Balkissoon, 2017).

For the women interviewed across the study, experiences of sexual violence were reported with

the intention of receiving support. Instead, survivors of sexual violence were "faced with

insensitivity, blaming questions, lack of investigation, and lack of follow-up from the police, all

of which contributed to not being believed by the institutions designed to protect them"

(Murphy-Oikonen et al., 2022, p. 8932). Murphy-Oikonen et al. highlight the impact of law

enforcement responses on sexual violence survivors' ability to heal and seek justice, and raise

broader questions about law enforcement being positioned as a front-line response to gender-

based violence.

Taking up a similar theme, Gruber (2020) examines the state's failure to protect sexual

assault and domestic violence survivors in the United States and argues that current approaches

that center law and punishment tend to cause women to be less safe and more vulnerable to

harm. Gruber details how carceral approaches to gender-based violence exacerbate social

inequalities as resources and funding are funnelled into the systematically flawed criminal justice

system. In turn, victims of gender-based violence, perpetrators, and wider communities are

harmed in the process that insufficiently applies power and resources. To respond to these

inadequacies and reverse future harm, Gruber encourages a "neofeminist" (p. 17) approach to

violence that recognizes intersecting forms of oppression, opposes mandatory arrest, prosecution,

and incarceration, and ultimately views criminalization as a technique of last resort to be used in

combatting violence against women.

In a further examination of American responses to gender-based violence, Goodmark

(2018) offers a critical look at the United States' continued reliance on the criminal justice

system as a response to intimate partner violence. Goodmark outlines how the criminal justice

system has emerged as a dominant response system for victims of intimate partner violence and sets out to reframe intimate partner violence as a problem related to economics, public health, communities, and human rights. Goodmark's work challenges policymakers to "rethink the current criminal regime" (p. 143) by focusing on the needs of victims through an intersectional lens.

Following a related narrative, Whynacht (2021) builds on this theme by examining the complexities of high-risk intimate partner violence that leads to domestic homicide in Canada. Whynacht illustrates how the shortcomings in current legal responses to intimate partner violence are intertwined with the carceral state, heteropatriarchy, settler colonialism, and racial capitalism. Through unpacking the root causes of the inadequacies in the current system, Whynacht argues for abolitionist justice as a response to intimate partner violence by emphasizing transformative measures that focus on anti-capitalist, anti-racist, and feminist approaches to achieve safety, prevention and justice.

This body of literature has highlighted the shortcomings of the criminal justice system's response to gender-based violence and shows that women are criminalized through zero tolerance approaches to intimate partner violence. However, questions remain about the role that embracing technology plays in transforming approaches to facilitate safety for victims of gender-based violence. This project will investigate how Ontario Victim Services, operating within the criminal justice system, implement Mobile Tracking Systems as a response to high-risk gender-based violence cases.

Gender-Based Violence and Technology: Technologies for Harm and Safety

The intersection of gender-based violence and technology is an area of study that has been gaining momentum. Emerging literature is critically examining how technology is being designed and implemented on behalf of and to the detriment of victims of gender-based violence.

Shelby (2020; 2021) critically evaluates the intersections of anti-violence products and gender-based violence. By examining wearable anti-rape technologies, Shelby highlights how vulnerability, safety, and justice take form through sociotechnical systems. Shelby (2021) draws attention to how anti-violence technology can inadvertently be supplanted with "pro-punishment logic" (p. 1) and "carceral creep" (Kim, 2015, p. 24) that does not serve victims of gender-based violence in an advantageous manner. Through employing "the anti-rape imaginary" (p. 22), Shelby's work invites the consideration of "counter-carceral technologies" (p. 22) in order to create more just social structures and organizations within the realm of safety-enabling technology.

Taking up a similar narrative of power and technology relations, Musto (2016) examines the impacts associated with combatting domestic sex trafficking through collaborations that ultimately serve to consolidate state power, carceral control, and invoke surveillance technologies. Musto highlights that when law enforcement, social services, and sociotechnical services combine their efforts to address domestic sex trafficking, their "well-intentioned interventions" (p. 3) designed to intervene on victims' behalf may in fact subject them to different kinds of social control and monitoring, such as through the use of ankle monitoring bracelets. The implementation of "social-service oversight augmented by technologies with surveillance capacities" (p. 4) highlights the blurred lines of victim and offender, and punishment and protection across domestic sex trafficking cases. In this regard, these blurred boundaries

drive a logic of "victim-offenders" (p. 4) where domestic sex trafficking victims are subjected to "carcerality inflected with care" (p. 4). Overall, Musto's work contributes to the literature that examines the implications of employing carceral technological devices as a tool for achieving safety for victims.

In a further examination of the intersection between technology and gender-based violence, some scholars have highlighted a notable rise in technology-facilitated gender-based violence (TFGBV), as technological devices are utilized to perpetrate and exploit victims in the digital sphere and in the real world (Fiolet et al., 2021; Woodlock, 2017; Clevenger and Navarro, 2021; Khoo, 2021; Tanczer, López-Neira, and Parkin, 2021). Afrouz (2021) explores women's increasing risk of gender-based violence facilitated through technology. Afrouz looks specifically at the nature, patterns, and consequences related to perpetrators' use of new mechanisms to stalk, monitor, and abuse victims, such as spyware, GPS location tracking, and social media platforms. Afrouz's review found that TFGBV not only facilitates, but also exacerbates the consequences of abuse for victims of gender-based violence. Notably, Afrouz also discovered that frontline workers were faced with heightened difficulties in attending to this emerging form of abuse as their comprehension of the nature and impact of these technologies and digital tools remains limited.

Following a related theme, Turgoose and McKie (2021) examine the perceptions of practitioners working with victims of domestic violence and abuse who carry bespoke personal safety alarms who experience exploitation through technology. Turgoose and McKie draw attention to the limitations of employing mobile safety alarms in response to violence and abuse. Specifically, these devices can perpetuate victim stereotypes, such as through the company's pink logo, and increase victim blaming, displayed through criminal justice practitioners

perceiving the devices to allow victims to "tak[e] responsibility for their actions" (p. 457). Moreover, Turgoose and McKie argue that smartphone applications exacerbate risks for victims as offenders may monitor their phone apps; "encouraging the use of this generic PSA may reinforce an entrapment structure, where technology, regarded as pivotal to protecting victims, is the 'panopticon' of surveillance of DVA victims" (p. 461). Overall, Turgoose and McKie warn that these apps "serve to contribute towards the commodification of women's safety" (p. 462) and call for further independent evaluations on these technologies.

In a related study of technologies and gender-based violence, Woodlock (2017) considers domestic abusers 'exploitation of technology as a means to facilitate stalking and other forms of abuse. By surveying domestic violence advocates and victims, Woodlock discovered that perpetrators' abuse of technology served "(a) to create a sense of omnipresence, (b) to isolate, and (c) to punish and humiliate [victims]" (p. 589). Woodlock highlights how abusers use different technologies and techniques in their abuse, such as phoning and texting, but also less detectable techniques, such as GPS mobile tracking. Abusers utilize "technology to engender this sense of omnipresence" (p. 592) and to "create a sense of being ever-present in the victim's life" (593). Finally, Woodlock advocates for adequate regard in "practice, policy, and legal responses" (p. 599) when responding to digital violence offences.

This literature has highlighted the risks associated with the use of technology to address violence, and its subsequent role in facilitating harm through violence, coercion, and control against victims of gender-based violence. Building on this literature, this study will investigate the use of technology to address gender-based violence, and its subsequent role in facilitating harm through violence, coercion, and control against victims of gender-based violence. Mobile

Tracking Systems new and novel status positions them as a technological safety device worthy of empirical exploration.

Panic Buttons for Gender-Based Violence

A limited volume of qualitative literature has examined panic button alarms for cases of gender-based violence. Scholars employing quantitative and mixed methods have begun to evaluate the effect of these devices by considering the impact on victims and service providers in the context of the criminal justice system. Electronic monitoring and panic button alarms often go hand in hand as a mechanism to respond to threats of gender-based violence, and the impacts of these perceived safety solutions have begun to receive some attention from scholars (Turgoose et al., 2021; Gendera et al., 2021; Granja, 2021). This study contributes to the literature through a qualitative investigation of panic button alarms for gender-based violence cases in the context of Ontario.

In contrast, Tumen and Ulucan (2019) reveal the risks of relying on technology to facilitate safety in high-risk gender-based violence cases. In an examination of two Turkish provinces, Tumen and Ulucan investigate the causal effect and impact on incidents of violence for targeted panic button implementation for cases of intimate partner violence. They discovered that when panic buttons were employed, physical violence increased as a result of women's perceived level of empowerment through carrying the device in comparison to control groups where no technology was employed. Tumen and Ulucan argue that this notable increase in violence is consistent with male backlash theory:

> In the big picture, the program empowered less-educated women economically, but also
> triggered a male backlash effect in the sense that males increased physical violence against

their female partners to restore their—perceivably weakened due to increased autonomy of women—authority in the household. (p. 14)

In consequence, when technology is implemented as a perceived safety-enabling mechanism, Tumen and Ulucan contend that violence and control in the domestic setting increases.

In a related study of electronic monitoring programs, Römkens (2006) examines the experiences of victims involved in the pilot launch of *AWARE*, an electronic intervention program designed to enhance responses to domestic violence in the Netherlands. Römkens draws from a critical theoretical understanding of the powers of law and the legal system to analyze criminal justice system actors' decision-making when assessing victims' eligibility for the *AWARE* program. Subsequently, Römkens investigates how victims navigate this program, given its intricate linkages to the criminal justice system for eligibility and programming. Römkens finds that "the involvement of criminal law to protect victims can eclipse other intervention perspectives and can unintentionally lead to the marginalization of victims 'interests" (p. 162). Troublingly, criminal legal actors are seen to "embody a superior epistemological system" (p. 162) that ultimately produces violent impacts on victims by either excluding them from the program or forcing them to abide by criteria that prioritizes the needs of the criminal justice system over their safety. In light of this conclusion, Römkens calls for further investigation into how women navigate their protection in the context of the criminal justice system as she ultimately notes that "it is hard for victims to please the criminal justice system" (p. 178).

In a further critical examination of panic button alarms, Granja (2021) investigates the less visible effects of "techno-optimism" (p. 254) and electronic monitoring in Portugal. Granja argues that the introduction of tracking technologies as a method to reduce pressure and overcrowding in prisons makes the expansion of the penal sphere into public space less visible.

Granja illustrates that through employing electronic monitoring in domestic violence cases, it positions technology as a technoscientific solution to an inherently social problem. In turn, this inhibits the opportunity for public debate to prevent future violence. Interestingly, Granja found that techno-optimism surrounding electronic monitoring fuels victim blaming. Though not legally obligated to do so, when victims did not 'properly' carry their electronic monitoring system, they were cautioned to do so for "the preservation of life" (Lusa as cited in Granja, 2021, p. 260). In effect, victims are held co-responsible for their safety and blamed for violence that ensues.

As an exception to these critical perspectives on technology for safety, Gendera, Valentine, and Breckenridge's (2021) mixed-methods evaluation of personal safety devices argues that innovative technology solutions, like panic alarms for clients experiencing domestic and family violence, offer substantial benefits to victims and service providers. When these technologies are employed as part of a wraparound adaptable service approach to victims' needs, it supports their ability to remain in their home. This conclusion is also supported by other *Safe At Home*[7] literature, which highlights the use of technology as a perceived tool for reducing homelessness and women and children in shelters (Breckenridge et al., 2015).

Following a similar optimistic narrative, Erez and Ibarra (2007) evaluate the impact of bilateral electronic monitoring (BEM) for individuals experiencing domestic violence in the United States. By conducting qualitative interviews with victims and justice professionals, Erez

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[7] *Safe At Home* initiatives first emerged in Australia in the 1990s. These intervention strategies consider how women and children can remain safely in their homes following acts of intimate partner and family violence. See *National mapping and meta-evaluation outlining key features of effective "safe at home" programs that enhance safety and prevent homelessness for women and their children who have experienced domestic and family violence: State of knowledge paper* for a full discussion of *Safe At Home* initiatives that consider the implementation of panic button alarms.

and Ibarra highlight the perceived value of BEM programs, arguing that the technology provides a subjective sense of safety to victims. According to Erez and Ibarra, "the use of BEM technology to promote victim welfare rather than as a strictly evidentiary tool suggests that this expression of the new paradigm of justice is oriented toward victim re-entry into civil society" (p. 100) which involves "'rehabilitating 'victims so that they may attain 'closure 'and resume a 'normal life'" (p. 102) following experiences of violence. Overall, Erez and Ibarra contend that when victims' sense of agency and safety are gradually heightened, it provides them with an alternative option to relocating out of their homes and into shelters.

Several other scholars have employed quantitative methodology to evaluate the use of panic buttons. Briefly, Prenzler and Fardell's (2017) experimental design evaluates the ability of panic button alarms to reduce repeat domestic violence, Hodgkinson, Ariel, and Harinam's (2022) randomised control trial was executed to determine the deterrent effect of panic alarms for domestic abuse offenders, and Natarajan (2016) evaluated the use of mobile phone applications designed to reduce domestic violence victimization. Although these studies provide insight into the 'successes' of panic buttons through quantitative figures, they fall short in accounting for diverse perspectives held by individuals involved in the referral, response, and administration of these programs, which are gained through the qualitative methods employed in this study.

While a small body of literature has considered electronic monitoring and panic buttons' use for cases of gender-based violence, this literature has yet to take up questions that investigate the use and impact of Mobile Tracking Systems on criminal justice responses to gender-based violence cases in the Canadian context. This study offers unique contributions to this literature through the methodological steps taken to collect this data. In particular, literature on electronic

monitoring has yet to draw on a combination of unobtrusive and interview data to investigate

Mobile Tracking Systems in the context of gender-based violence in Ontario.

Heightened Violence and Technology Reliance in a Pandemic Setting

The COVID-19 global pandemic has added a new dimension to the prevalence and

severity of gender-based violence (Dlamini, 2021; Tracy et al., 2022). Restrictive pandemic

measures have created "a perfect storm" (Davidge, 2020, p. 1) to set in motion a rise in gender-

based violence, which has led to increasing pressure on social service providers to facilitate

safety resources for individuals experiencing gender-based violence (Slakoff et al., 2020). In

light of this, recent literature has addressed the transformative ways that the pandemic has

increased social service providers' role in facilitating safety resources, including technological

safety devices, for victims of gender-based violence.

Statistics Canada researchers, Allen and Jaffray (2020), surveyed Canadian Victim

Service providers to explore technology use during the pandemic. Allen and Jaffray discovered

that "almost two-thirds (62%) [of respondents] reported that they used a new technology to

communicate with clients" (p. 4). In consequence, for Victim Services to continue to deliver

adequate services during the pandemic, there was an increased use of technological forms of

communication not previously offered. Additionally, for 38% of respondents, a lack of

technology was identified as a communication barrier to offering sufficient services. Allen and

Jaffray's survey frames a *lack* of technology as a barrier to providing adequate safety resources

for individuals, in turn, positioning the implementation of *more* technology as a desirable

solution for service provision in the context of gender-based violence.

Sapire, Ostrwoski, Maier, Samari, Bencomo, and McGovern (2022) evaluate "the impact

of COVID-19 policy responses on GBV service providers in the United States" (p. 4). Sapire et

al. examine the effect of increasing violence on gender-based violence resources that are further constrained during the pandemic due to emergency orders, siloed approaches to healthcare, and funding limitations. In turn, social services are tasked with creating innovative and creative solutions to ever-increasing levels of violence. Sapire et al. note that "over half of respondents (52%) reported developing innovative ways to continue service delivery using technology and other strategies" (p. 8). In light of the rising demand on service providers, some are turning to technology as a perceived solution to facilitate safety resources for victims of gender-based violence.

Slakoff, Aujla, and PenzeyMoog (2020) recommend best practices for social service providers during and beyond a pandemic setting and put forward recommendations for designers working at the forefront of creating innovative technologies for those experiencing gender-based violence. Slakoff et al. highlight the pandemic's role in reaffirming a need for safe technology, which involves an "inclusive safety design" (p. 2784) by having tools and resources accessible to people of various backgrounds. This emphasis on inclusive safety design is both timely and relevant to consider given the implementation of technology-reliant solutions and its intersection with gender-based violence during the pandemic.

To summarize, existing literature has considered the criminal justice system's inadequate responses to gender-based violence cases, evaluated the impact of using technology as a response to gender-based violence, begun to explore electronic monitoring and panic buttons, and has considered the impact of the COVID-19 pandemic on service providers' responses to gender-based violence. However, no studies have traced the development and narrative of panic buttons as a promising solution to gender-based violence cases in the context of the criminal justice system in Ontario. Scholarly literature has also yet to investigate the impact of these

technological devices on criminal justice responses to gender-based violence in Ontario and will be addressed by the current study.

Current Study

This study contributes to the qualitative literature critically evaluating the use of technology as a response to gender-based violence by focusing particularly on the perspectives of individuals in positions of power who work within and on behalf of the criminal justice system.

This study makes theoretical contributions as my analytical approach draws on concepts within Science and Technology Studies and critical perspectives on law and criminal justice to direct my attention to the particular design features and assumptions embedded in Mobile Tracking Systems. Limited scholarly research has applied these frameworks to the current object of analysis. The findings I present in this thesis expand the application of these theoretical tools to a technological device gaining significant traction in public discourse. These theoretical tools allow me to critically evaluate the assumptions embedded in these technologies and expose the impact of utilizing these tools in the criminal justice system for victims of gender-based violence cases.

The epistemological approach to this project marks a notable methodological contribution to the literature. The interpretivist qualitative framework I drew on to collect unobtrusive data and semi-structured interview data marks a unique methodological approach to examining panic button alarms for gender-based violence cases. An interpretivist qualitative orientation to this project allowed me to explore service providers' interpretations and perceptions regarding how they make meaning of the use of this technology in the context of gender-based violence cases in

Ontario. Together, these approaches to conducting this thesis are a valuable contribution to existing scholarly literature.

Finally, the findings and broader themes I present in this thesis make a variety of empirical contributions to the literature. This study is uniquely Canadian as it focuses on panic button alarms used in the context of Ontario. Since this specific panic button alarm has been subjected to mounting attention through the recent Renfrew County Inquest and has yet to receive scholarly attention, the investigation into its implementation in the province is both critical and timely. Critically investigating Mobile Tracking Systems as a tool perceived to reduce violence in cases of gender-based violence in Ontario provides a new and novel approach to understanding the implementation of technological resources. Building empirical research on Mobile Tracking Systems at a time where service providers are calling to add devices and increase funding for these programs is critical.

Chapter 3: Epistemological Approach and Methodology

This thesis offers an in-depth examination of the history, development, and use of Mobile Tracking Systems in the context of gender-based violence cases in Ontario, and investigates the impact of these devices on criminal justice responses to gender-based violence. To effectively analyze Mobile Tracking Systems, I draw on a range of theoretical frameworks and tools to guide the research process and focus my attention throughout the data analysis and interpretation processes. This chapter provides a detailed discussion of the study's methodology.

This chapter begins with a discussion of the epistemological approach used in the study. Then, this chapter reflects on the importance of my social location and positionality as a past Crisis Responder to understand the ways both may have impacted the research process. Next, I detail the methodological steps taken to collect and analyze the data across this study. Using qualitative methods, I engaged in two complementary forms of data collection, unobtrusive methods, and semi-structured qualitative interviewing, to gain a rich understanding of Mobile Tracking Systems in cases of gender-based violence. The methodological section includes a detailed discussion of my unobtrusive methods, sampling techniques, recruitment strategies, access challenges, semi-structured interview data collection methods, data analysis strategies, and ethical considerations acted on throughout the study.

Epistemological Approach

This thesis employs an interpretivist, qualitative approach to consider the use of Mobile Tracking Systems as a perceived safety-enabling tool for gender-based violence cases in Ontario. Qualitative approaches to research allow scholars to "richly depict the experience of participants, to identify complex behavioural or social patterns, and to delineate the multifaceted nature of the situational-organizational-community context in which phenomena occur" (Maton, 1990, p.

154). This approach is particularly useful as I conduct a multi-site analysis across various sites in Ontario. In addition, my approach to qualitative research is rooted in an interpretivist paradigm, where I consider "the world through a 'series of individual eyes' and choose participants who 'have their own interpretations of reality' to 'encompass the worldview'" (McQueen as cited in Thanh and Thanh, 2015, p. 26). In the context of this study, rather than finding universal truths established as facts (Guba et al., 2011) about the use of this technology, an interpretivist framework allows me to explore service providers' interpretations and perceptions regarding how they make meaning of the use of this technology in this specific context. In particular, this approach is valuable for the current project as I sought to understand the impact of Mobile Tracking Systems' use from the perspectives of service providers involved in case referral and the administration of Mobile Tracking Systems for victims of gender-based violence. Employing an interpretivist, qualitative approach supports an "inside-out" (McQueen, 2002, p. 55) approach to social science research, as the perspectives of participants reflect their lived "reality [that] is dynamic and responsive to the fluctuations of human interaction, perception, and creation of meaning" (p. 55).

While a quantitative approach to this study may have provided a numeric based understanding of the 'successes' of Mobile Tracking Systems, such as the rates of uptake, the volume of crimes thwarted through their use, or the volume of convictions the devices have facilitated and provided victim-witness evidence for, this approach would not provide an in-depth understanding of the various dimensions of the problem under analysis (Queirós et al., 2017). Rather, a qualitative approach to this project has provided a nuanced understanding of the devices' history, development, use, and impact through the perspectives of service providers who are 'on the ground' working with Mobile Tracking Systems and forming partnerships with the

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device designers. The qualitative approach to examining panic button alarms marks a contribution to the literature as most scholarly literature provides a quantitative examination of these devices.

Social Location and Positionality

Social location and positionality alert us to the ways in which our understandings of the social world are shaped. Jacobson and Mustafa (2019) recognize that "the way that we as researchers view and interpret our social worlds is impacted by where, when, and how we are socially located and in what society" (p. 1). In turn, positionality impacts our work through our research interests, the questions we ask, how we engage participants, and how we choose to interpret the data we collect. To effectively understand my positionality and the ways in which it has been relevant to informing my project, prior to commencing data collection, I reviewed Jacobson and Mustafa's Social Identity Map (2019), included in Appendix A. By reflecting upon my own positionality map, I was able to recognize the continuous inter-connection of privilege and oppression embedded in my social location as a researcher. The intersections of my position as a white middle-class able-bodied cisgender woman with educational opportunities has influenced how I interpreted and interacted in the social world while collecting and analyzing my data.

I recognize my positionality within Victim Services as a past Crisis Responder in the Waterloo Region. My experience providing crisis intervention support to clients of gender-based violence alerted me to the emphasis placed on technology as a tool to reduce violence for those who experience victimization. I was able to reflect on my experience providing crisis support and consider how this experience related or differed to the implementation of MTS across various sites utilizing this technology in Ontario. This formative experience shaped my

awareness of privilege, oppression, and their link to gender-based violence and technology when considering the use of Mobile Tracking Systems in the context of Victim Services, and more broadly, the criminal justice system. In addition, during data collection, I was reflexive of my positionality by maintaining awareness of my role as a past crisis responder and being attentive to how this experience shaped my perspective of offering technological services to victims of gender-based violence. Overall, across this project, I strived to remain cognizant of the role these factors and experiences have played in shaping my data collection and analysis.

Methodology

As of 2023, there are 48 Victim Services locations serving Ontario residents who are victimized by crime. Of these 48 sites, 16 Victim Services locations across Ontario have been identified as sites that provide Mobile Tracking Systems to clients experiencing high-risk gender-based violence (Ontario Network of Victim Service Providers, n.d.). All these Victim Services programs are either integrated or work in affiliation with their local police service. Appendix B outlines the 16 Victim Services sites across Ontario that employ Mobile Tracking Systems.

Unobtrusive Methods

To investigate the use of Mobile Tracking Systems by Victim Services in Ontario, I first collected unobtrusive data pertaining to the devices to perform a textual analysis. I began with a textual analysis to uncover what details surrounding the implementation of Mobile Tracking Systems in Ontario were publicly accessible. The step also directed my attention to areas that required further investigation to respond to my research questions when conducting semi-structured interviews with Ontario service providers. Unobtrusive data on Mobile Tracking Systems consisted of documents ranging from 1991 to 2022 that span the development and

implementation of technologies drawn on by Victim Services to respond to gender-based

violence cases in Ontario. This collection process produced a range of textual data, including: 1)

media articles published online between 2019 and 2022 from Ontario media sources[8], 2) archival

reports and media releases related to panic button alarm programs from 1991 to 2014[9], 3) media

articles published online between 1998 and 2005 by American media sources[10] 4) publicly

accessible information on Mobile Tracking System programs published on Victim Services

websites, 5) Canadian legal cases that involve panic button alarms from 1999 to 2021[11], 6)

documents provided by Victim Services sites that administer Mobile Tracking Systems,

including brochure materials, Tracker Use Agreements, and eligibility criteria forms, and 7) law

enforcement Standard Operating Procedures on Mobile Tracking Systems obtained through

Freedom of Information requests.

      To search for media articles pertaining to the development and implementation of panic

button alarm programs in Ontario, I drew on the University of Waterloo's Omni database and

Google. Through these databases, I used key word searches, such as "Mobile Tracking System",

"Domestic Violence Emergency Response System", " MTS panic button alarm", "Victim

Services AND panic button". "Victim Services AND MTS", "Victim Services AND DVERS" to

collate documents for my textual analysis. Media articles were primarily published by regional or

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[8] This date range has been chosen to capture media sources related to Mobile Tracking Systems closely leading up to the COVID-19 pandemic and subsequently, media sources emerging after the onset of the COVID-19 pandemic.
[9] This date range has been chosen to capture the shift in devices used in Ontario, beginning with DVERS and shifting to MTS.
[10] This date range has been chosen to reflect media sources related to the development of the DVERS program in the United States and its expansion into Canada as a response to domestic violence.
[11] This date range reflects legal cases pertaining to electronic minoring devices through DVERS and subsequently, Mobile Tracking Systems, available on the Canadian Legal Information Institute.

municipal-level news sources, which focused on the local context of a community's use of the MTS. I also used CanLii to search for Canadian legal cases pertaining to Mobile Tracking Systems and applied the same search terms in this database.

The collection and subsequent textual analysis of the unobtrusive data I gathered guided my attention to specific aspects of my research questions that were not responded to through textual documents. As I recognized gaps in knowledge related to the current use and impact of Mobile Tracking Systems in Ontario, this provided a departure point for my semi-structured interview guides with service providers. Through this textual analysis, particular gaps related to the implementation of Mobile Tracking Systems in Ontario were identified and subsequently, informed the development of my interview guide. These identified gaps included questions related to how the Mobile Tracking System was designed as a technological response for victims of gender-based violence, how the MTS is perceived and used in cases of gender-based violence in Ontario, and the impacts of the MTS on how police and Victim Services respond to cases of gender-based violence in Ontario. This approach marks a methodological contribution to the literature as to date, the combination of these data sources have not been drawn on to critically examine panic button alarms in the context of gender-based violence in Ontario.

Interview Participant Sampling

To supplement the unobtrusive data collected for this project, I conducted a multisite analysis of three Victim Services sites across Ontario. Jenkins, Slemon, Haines-Saah, and Oliffe (2018) report that by "collecting data from multiple settings with similar methods and procedures, multisite qualitative case studies [aim] to enhance transferability and trustworthiness of findings to other contexts by comparing data across sites, while preserving the site-specific understandings foundational to the methodology" (p. 1969). For this project, engaging in a

multisite analysis was a favourable approach over contextualized single-site findings, which may have limited the utility and applicability of findings in other settings (Rogers-Dillon, 2005). Instead, approaching this project through a multi-site analysis allowed me to investigate the diversity across Victim Services organizations in Ontario that utilize Mobile Tracking Systems.

The sites chosen for the multi-site analysis include: 1) Victim Services Renfrew County, 2) Victim Services of Kingston & Frontenac, and 3) Victim Services of Waterloo Region. To select these sites, I used quota sampling. This sampling strategy separates the population of Victim Services sites into categories and purposely selects relevant sites based on prescribed criteria. One Victim Services site from each population range identified in Appendix B was chosen to reflect the diversity of geographic regions across the province from rural to urban centres. Victim Services Renfrew County represents a population of less than 100,000 (small), Victim Services of Kingston & Frontenac has a population between 100,000 and 500,000 (medium), and the final site, Victim Services of Waterloo Region, represents a population greater than 500,000 (large).

Additionally, Victim Services Renfrew County, Victim Services of Kingston & Frontenac, and Victim Services of Waterloo Region were chosen for their unique identifying features as MTS sites. First, Victim Services Renfrew County is the only documented location in Ontario to have a domestic homicide associated with an MTS device (Office of the Chief Coroner, 2022). In addition, given the recent Inquest in Renfrew County which drew attention to the use of Mobile Tracking Systems, it was important to gain the perspective of service providers in this region of Ontario. Next, Victim Services of Kingston & Frontenac enhanced their program during the COVID-19 pandemic to provide additional resources and devices to victims of gender-based violence (Crosier, 20220). Finally, Victim Services of Waterloo Region is

positioned as an organization that works to promote and expand MTS programs and jurisdictions across the province. These sites each provide distinctive features when considering the use of Mobile Tracking Systems in their respective locations across Ontario for cases of gender-based violence.

Inclusion Criteria

Inclusion criteria are established to "draw a boundary around the sample universe" (Robinson, 2014, p. 26). In order to participate in the study, participants were required to be at least 18 years of age and have some involvement in the design, administration, referral, or response to Mobile Tracking Systems in Ontario. Additionally, my inclusion criteria involved sites where the Mobile Tracking System program was already publicly discussed in the media by the site's Victim Services staff. Across the study, participants noted their desire to obscure MTS programs from the public eye in order to limit detection of the devices, and program more generally, by perpetrators. In line with their sentiments about detection, I chose to not bring further attention to the devices. This decision ultimately limited the sample available for the study, though an adequate volume of sites had publicly spoken about the devices which allowed me to conduct a thorough multi-site analysis.

When inclusion and exclusion criteria are established for a qualitative study, it is relevant to consider the impact this criteria has on the study sample. Robinson (2014) draws attention to "sample universe homogeneity" (p. 26). As the sample universe is defined through inclusion and exclusion criteria, increased specificity in those deemed eligible to participate may lead to a more homogenized sample (Robinson, 2014). Although the inclusion criteria for this study does create a boundary to distinguish who may take part in the study, I aimed to maintain a wide range of eligibility for participation in order to enhance the level of sample heterogeneity.

Maintaining heterogeneity of sample "helps provide evidence that findings are not solely the preserve [of] a particular group, time or place, which can help establish whether a theory developed within one particular context applies to other contexts" (Robinson, 2014, p. 27). As a result, maintaining a heterogenous sample allowed me to make enhanced "cross-contextual generalities" (Mason, 2002, p. 1) in my analysis by considering the perspectives of a variety of service providers through the course of the research.

Recruitment

During the spring 2022 term, I applied for and was granted ethics approval by the University of Waterloo Research Ethics Board (see Appendix C). To recruit participants for this project, I drew on publicly available online contact information. The online resources accessed to retrieve contact information included: 1) organizational websites such as Victim Services, shelters, and governmental organizations and 2) online media articles. I also recruited participants through email connections provided by study participants. This involved the recommendation to speak to another member of the participant's organization or another community partner, accompanied by their email address.

During the spring 2022 term, participants from three chosen interview sites, who were directly involved in the design, administration, referral, or response to Mobile Tracking System devices in Ontario were contacted via email and provided with recruitment materials to participate in the study. Thirty-three potential participants were sent recruitment materials, which resulted in 10 participants for the study. Once this volume of responses was received, data collection concluded as theoretical saturation was achieved. Glaser, Strauss, and Strutzel (1968) outline theoretical saturation to be the point when "no additional data are being found, whereby the researcher can develop properties of the category. As [the researcher] sees similar instances

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over and over again, the researcher becomes empirically confident that a category is saturated" (p. 61). In addition to reaching theoretical saturation, given the time constraints of the MA thesis program, this volume of participants allowed me to collect and analyze a substantial volume of interview data and produce an effective sample size for this project.

Access Challenges

Given Mobile Tracking Systems' implementation as a perceived safety-enabling tool within the criminal justice system, it is relevant to note the device's intersection and oversight by individuals in positions of power. Several scholars have addressed challenges associated with accessing those in positions of power, as well as obtaining information held by powerful institutions (Lefkowich, 2019; Yeager; 2006, Horn, 1997; Nader, 1972). Nader (1972) examines the upper echelons of social power structures. Nader's account of "studying up" (p. 1) draws attention to the value in studying powerful institutions and organizations that affect citizens' everyday lives. Nader encourages researchers to study institutions that hold and exercise delegated power and responsibility. Following a similar narrative, Horn (1997) outlines barriers women face when researching the police. Horn recounts her experience confronting institutional barriers while attempting to gain access inside the police service and highlights how perceptions of women, such as being "seen as suspect" (p. 299), effect their ability to conduct research inside powerful institutions.

In the current study, I experienced similar barriers to access which have impacted the breadth of data available for this project. First, I had difficulty engaging a member of the company involved in the design of the Mobile Tracking System. People who were directly involved in the design of the device and previously worked in law enforcement in Ontario chose not to participate in the study given their desire not to be quoted on the devices or the company.

Second, although the Ontario Provincial Police (OPP) "believes that research is a valuable asset to [their] organization" (Research and Program Evaluation Unit, 2021, para. 6), the research branch posed significant barriers in conducting interviews with provincial police officers. The OPP's Research and Program Evaluation Unit enacted barriers to accessing study participants through requiring Research Agreements and Memorandums of Understanding for participation, then failing to respond to the request. The requisites to engage participants within the OPP were filed in August 2022 (with the potential participant's acknowledgement), and although extensive emails have been exchanged with the OPP to provide exhaustive details on the study, the request has gone unacknowledged, neither approving nor disapproving the project. These institutional barriers limit the development of knowledge into the use of technology as a response to gender-based violence cases in Ontario.

In addition, this study was conducted in the context of the COVID-19 pandemic. Burd, MacGregor, Ford-Gilboe, Mantler, McLean, Veenendaal, and Wathen (2022) investigated the impact of COVID-19 on staff in the violence against women service sector in Ontario. Burd et al. identified that staff supporting the violence against women sector are exposed to an increased potential for burnout, heightened trauma and violence, and secondary trauma, and these circumstances were exacerbated during the COVID-19 pandemic (Burd et al., 2022). Given that this sector of service providers were a significant population of my sample, it is relevant to consider the effect of the pandemic on my ability to recruit these individuals for participation in the study. It is possible that given service providers' tendency to be overburdened during this time period, they were less likely to consider participating in a research study that takes additional time, communication, and preparation. As discussed below, this study employed a

variety of methods to circumvent these barriers by engaging study participants involved in the administration, referral, or response to Mobile Tracking Systems across various sites in Ontario.

Sample

The sample for this project involved 91 textual documents and 10 semi-structured interviews. Interview participants included: 1) four Victim Services staff, 2) one police officer, and 3) five victim advocates.

It is relevant to note that as the interviews commenced, the scope of individuals eligible to participate in the project widened to include *individuals who make referrals* to *MTS programs*. It was apparent that these service providers also had meaningful engagements with Mobile Tracking Systems and had the capacity to contribute knowledge surrounding the history, development, use, and impact of Mobile Tracking Systems in response to gender-based violence cases in Ontario. The addition of these individuals involves purposive sampling, which is "based on [participants'] *a-priori* theoretical understanding of the topic being studied… [as] certain categories of individuals may have a unique, different or important perspective on the phenomenon in question and their presence in the sample should be ensured" (Robinson, 2014, p. 32). As a result, the scope of eligible participants expanded to include these individuals who provided relevant insights on Mobile Tracking Systems' use for cases of gender-based violence in Ontario.

Overall, unobtrusive data collection in combination with semi-structured qualitative interview data collected through a multisite analysis provided a breadth of data to analyze in relation to Mobile Tracking Systems' implementation as a tool perceived to reduce violence for victims of gender-based violence in Ontario.

Data Collection

Semi-Structured Interviews

For this study, I conducted a multi-site analysis by engaging in semi-structured interviews with three Victim Services sites in Ontario. Each interview site had a varying number of participants depending on participant interest; Kingston (1 participant), Renfrew (2 participants), Waterloo (7 participants).

Semi-structured interviews took place between August and November of 2022. I conducted each of the 10 semi-structured interviews. The interviews were held both virtually using Zoom, and in-person in a one-on-one format with participants. Prior to commencing each interview, I reviewed the Information and Consent Form with each participant. Since the Information and Consent Form provided the option for verbal consent, this method was confirmed with participants if requested. At this time, I also gave participants the opportunity to pose questions about participation in the study. Finally, I verified participants' consent to be audio-recorded for transcription purposes. Although a note-taking option was available, all participants consented to being audio-taped during the interviews. Interviews typically lasted between 45-60 minutes in length. No follow-up interviews were conducted as it was not deemed necessary for clarification or further data collection.

Throughout the semi-structured interviews, I used interview guides to facilitate my discussions with participants. These interview guides provided a specific set of topics to be covered, while maintaining flexibility for the interviewees' various responses (Bryman and Bell, 2019). This approach allowed me to utilize a guide of pre-determined topics on Mobile Tracking Systems that could be modified depending on information obtained from my textual analysis, along with the level of engagement and responses provided by the service providers. Throughout

the interviews, I strived to bring out how "the interviewees themselves interpret and make sense of issues and events" (Bryman and Bell, 2019, p. 242) pertaining to the implementation of Mobile Tracking Systems. Appendix D outlines a sample interview guide utilized during semi-structured interviews with service providers.

Ethical Considerations

As a social researcher, I have a duty to manage and maintain participants' confidentiality throughout the various phases of my project. To achieve this, I implemented safeguards for the participants 'confidentiality across all stages of my research, including recruitment, data collection, data analysis, and the current presentation of results.

I have maintained the confidentiality of all participants through proper data access and retention practices as I implemented a variety of safeguards across my project. First, I included physical safeguards to maintain participant confidentiality by conducting interviews in private spaces. When interviews took place in-person or virtually, participant's confidentiality and privacy was upheld by choosing locations where other employees or clients could not overhear interviews, such as in secure board rooms and private offices. As well, upon obtaining physical documents throughout the data collection process, these documents were stored in a locked cabinet in my office. Next, administrative safeguards were put in place to maintain participants ' confidentiality. This was achieved by limiting access to the data derived from collection and analysis to the researcher and the designated committee members of the project. Technical safeguards were also in place to protect the privacy of participants through the use of computer passwords and 'invitation-only' access links to shared Dropbox folders. Finally, research design safeguards were in place to maintain the confidentiality of participants. This method involved

anonymizing participant information, including participant codes, and transcribing raw data in a timely manner to limit any identifying information.

As noted earlier in Chapter 3, another ethical consideration for this study involved limiting my inclusion criteria to sites where the Mobile Tracking System program was already publicly discussed in the media by the site's Victim Services staff. Across the study, participants noted their desire to obscure MTS programs from the public eye in order to limit detection of the devices, and program more generally, by perpetrators. In line with their sentiments about detection, I chose to not bring further attention to the devices.

Data Analysis

Transcription

Transcription marks the beginning of data analysis by facilitating a researchers 'ability to familiarize themselves with their data and establish emerging themes across the data (Riessman 1993; Bird, 2005). According to Bird (2005), there is "experiential context created when the transcription process is regarded as a key phase of data analysis within interpretive qualitative methodology" (p. 226). In line with this perspective, I transcribed three interviews to actively engage in this interpretive process. Additionally, seven interviews were transcribed using a professional transcriber and automatic transcription software. Drawing on alternative transcription methods expedited the transcription process, though I continued to align my approach to transcription with Bird's (2005) interpretivist process by closely reading the transcripts and reviewing them for accuracy. Employing these alternative methods to expedite the transcription process allowed me to focus additional time on other valuable aspects of data analysis.

Abductive Analysis and Coding

    To analyze the textual and semi-structured interview data I collected, I drew on

Timmermans and Tavory's (2012) abductive approach to qualitative analysis, which they define

as;

> [A] form of reasoning through which we perceive the phenomenon as related to other
>
> observations either in the sense that there is a cause and effect hidden from view, in the sense
>
> that the phenomenon is seen as similar to other phenomena already experienced and
>
> explained in other situations, or in the sense of creating new general descriptions. (p. 171)

Additionally, the abductive process is a systematic methodological analysis that draws on the

formation of unpredicted empirical findings and considers them in relation to a variety of

sociological frameworks and concepts (Timmermans and Tavory, 2012). For instance, I drew on

this technique by tracing the history and development of panic button programs, and considered

how these decisions by the criminal justice system reflect a broader "techno-optimism" (Granja,

2021, p. 254) in Mobile Tracking System's ability to provide enhanced safety for victims of

gender-based violence cases in Ontario. As a result, engaging in abductive analysis facilitated

my ability to move back and forth between relevant theoretical concepts and discoveries in the

field which informed my analysis in a generative manner.

    To complement this analytical approach, I used In Vivo coding techniques while

conducting my data analysis using MaxQDA software. The process of In Vivo coding involved

"us[ing] words or short phrases from the participant's own language in the data record as codes.

It may include folk or indigenous terms of a particular culture, subculture, or microculture to

suggest the existence of the group's cultural categories" (Miles et al., 2014, p. 74). Since the

participants involved in the project were the primary authorities in their respective fields, I aimed

to honour their voices given their close proximity and specific knowledge related to the phenomenon of analysis. Additionally, this method proved advantageous for me. By utilizing the participants' own language, the codes served as memory prompts to contextualize the concepts or themes the interview participants addressed. This proved to be especially helpful when several months had passed between data collection and analysis.

To engage in this analytical process, I first began with a close, detailed reading of the transcripts. I began coding my data through applying specific codes that stuck closely to participants' language. Through drawing on participants' own language, I was able to analyze Ontario service providers' interpretations and perceptions of MTS devices as they make meaning of the use of this technology. Some examples of the codes derived through this process include "high-risk cases", "police involvement", "sense of safety", "peace of mind", "monitoring location" and "eligibility criteria". Then, I drew on Miles, Huberman, and Saldaña's (2014) framework for "generating meaning" (p. 279) during qualitative data analysis, known as *clustering,* which involves "grouping and then conceptualizing objects that have similar patterns and characteristics" (p. 279). While analyzing my data, I employed a clustering model which allowed me to effectively generate meaning from the qualitative data I collected as I was able to recognize patterns and relationships across the breadth of data. This method was beneficial to my analysis process as it allowed me to generate meaningful links between textual documents and interview transcripts. The broader connections and codes established through this process include "interaction with law enforcement", "perceived benefits of MTS", and "victims perceived as uncooperative".

Overall, utilizing an abductive approach and In Vivo coding methods with MaxQDA facilitated opportunity to derive new theoretical insights and highlight surprising findings on the

use of Mobile Tracking Systems in gender-based violence cases in Ontario, which to date, have

remained largely unexplored by social scientific researchers.

Chapter 4: The History and Design of Panic Button Alarms for GBV in Ontario

This chapter traces the emergence of panic button alarm programs from the United States into Ontario to assist victims of gender-based violence cases. In this chapter, I argue that pro-arrest policies for domestic violence, high-profile domestic violence cases, and a quest to find solutions to gender-based violence crises created the circumstances for the rapid adoption of panic button alarms in Ontario. Panic button alarms emerged as a technological fix and were perceived as a promising 'solution' to domestic violence. I draw on Balsamo's (2011) idea that "innovations are not objects" (p. 8) as a method to frame the historical analysis that follows by considering how technoculture innovation expresses and embeds particular cultural understandings into panic button alarms. To further illustrate these perceptions, I draw on Jasanoff's (2015) "sociotechnical imaginary" (p. 4), and related concept of "techno-optimism" (Granja, 2021, p. 254) to examine how the devices are seen as a solution aligned with the goals of the criminal justice system to respond to domestic violence in Ontario. I also use Benjamin's (2019) notion of "discriminatory design" (p. 5) along with Kim's (2015) conception of the "carceral creep" (p. 24) to examine the assumptions embedded in the device's design. To achieve this, I will first explore the narrative surrounding panic button alarms' development through ADT AWARE in the United States. Next, I will examine the expansion of panic button alarms into Canada through DVERS and other devices developed to provide a technological fix to shortcomings in preceding panic button alarms. Then, I will detail the current use of the Mobile Tracking System as a perceived safety response mechanism to gender-based violence cases in Ontario. In doing so, I will answer the following two sub research questions outlined in Chapter 1: How was the Mobile Tracking System device designed? For what purpose and to whose benefit was the Mobile Tracking System device designed?

Situating the Emergence of Panic Button Alarm Programs

During the 1980-1990s, pro-arrest policies for domestic violence gained traction as feminist social movements advocated for and facilitated radical change in the criminal justice system (Römkens, 2006; Goodmark, 2018; Kim, 2019). During this critical time period, the emergence of new carceral actors and organizations created the circumstances for initiatives aimed to combat domestic violence to swiftly replicate across North America. One example was the Duluth Project in the United States, which "proposed and initiated a mandatory arrest policy that caught the attention of feminist social movement actors, law enforcement officials, legislators, and a newly interested public" (Kim, 2019, p. 19). Through feminist social movement actors' collaboration with law enforcement, such initiatives "set into motion some of the enhanced crime control policies that contributed to the sweep of mandatory arrest laws that strengthened the coupling of social concerns about domestic violence with the strong arm of policing" (p. 19). Not only did these measures extend across the United States, their reach also broadened to impact Canadian legal practices.

Simultaneously, high-profile cases involving domestic violence were receiving significant media attention, such as the murder of Nicole Brown Simpson and the subsequent O.J. Simpson trial. Capitalizing on this frenzy of media attention, ADT Corporation launched the first known panic button alarm program for domestic violence in North America and connected its successful uptake with this high-profile case. Ann Lindstrom, the director of the AWARE Program asserted,

> 'Back in 1992, when the program was started in the United States, domestic violence was mostly talked about behind closed doors. The program was started around the time of the O.J. Simpson trial, and domestic violence really wasn't talked about. The trial put it on

everyone's radar,' Lindstrom said. 'One reason we decided to call it AWARE was because we thought it was important to raise the issue of domestic violence. It cuts across all barriers – not just poor, but rich, also'. (as cited in Sanchez, 2007, para. 7-8)

Consequently, increasing attention given to domestic violence, coupled with the quest for innovative solutions to solve "the issue of domestic violence" (Ashcraft, 2000, p. 3) created the circumstances for the uptake of technology as a promising response to domestic violence cases across North America.

The Domestic Violence Emergency Response System (DVERS) program preceded the Mobile Tracking System currently offered by select Victim Services locations in Ontario. The initial version of the DVERS program first emerged by ADT in the United States under the name *AWARE* (Abused Women's Active Response Emergency) in 1992. According to John B. Koch, the President of ADT Security Services,

> Through the *AWARE* program, ADT donates and installs electronic security systems in the homes of domestic violence victims, and gives them emergency necklace pendants. When activated, the equipment sends a silent alarm to ADT's customer monitoring center, which contacts law enforcement officers. Law enforcement organizations in each active *AWARE* community agree to respond to these calls on a priority basis. (2008, p. 137)

News media sources characterized the devices as a "new weapon in staying safe" (Weil, 2007, para. 1) for victims of domestic violence. To be eligible for the ADT *AWARE* program, clients were required to meet all three of the following criteria:

> The victim must be in imminent danger of attack; have a restraining order or other active order of protection against the abuser; and be willing to prosecute and testify against the

batterer in court if the batterer is apprehended as a result of the use of the ADT system.

(National Criminal Justice Reference Service, 2003, n.p.)

Consequently, the introduction of technology by ADT Security Services *AWARE* program that utilized home security systems and pendant necklaces equipped with a panic button alarm reflects the emergence of a broader "techno-optimism" (Granja, 2021, p. 254) surrounding this device and its capacity to keep victims of gender-based violence safe.

'Techno-Optimism' and the Beginnings of the Panic Button Alarm Program in Ontario

The Canadian anti-violence movement closely paralleled pro-criminalization responses that took place in the United States. In the Canadian context, second-wave feminists supported pro-carceral responses to wife assault as they "advocated for the creation of new criminal offenses, facilitation of arrests, charges and convictions for crimes against women, and more severe punishment of convicted offenders" (Abraham and Tastsoglou, 2016, p. 572). A pro-carceral approach to domestic violence prevailed despite "evidence that the latter was failing, and was not even the preferred option for many women" (p. 572). Today, a criminal justice framework characterized by pro-charging and pro-prosecution remains as the dominant approach to respond to gender-based violence cases in Ontario.

When ADT *AWARE* expanded into Canada in through ADT Security Services Canada, Inc., the program became known as DVERS (Domestic Violence Emergency Response System) (Römkens, 2006). ADT Security Services provided DVERS devices free of charge to victims of domestic violence through regional Victim Services sites (Peel Regional Police Board, 2015). DVERS technologies accessible to victims of domestic violence included security alarms, necklace pendants, and affixed landline phones in the home. At the program's height, DVERS alarms were available in "176 communities across the United States [and] the program [wa]s also

active in 45 Canadian cities" (Koch, 2008, p. 137). President of ADT Security Services, John B. Koch, credited the program with saving the lives "of at least 31 battered people, and ha[ving] provided peace of mind to countless others" (Koch, 2008, p. 137).

In the March 1999 issue of the International Centre for Criminal Law Reform (ICCLR) and Criminal Justice Policy, the DVERS program was cited as a "*Promising Practice Relating to Police Procedures and Safety*" (p. 156). This document outlined criteria clients must adhere to in order to be eligible for a DVERS alarm. As noted below, these criteria differed slightly from *AWARE* eligibility requirements:

> Fearful that we might deny a woman in need, or generate a false sense of security, the following criteria for distribution were established: … The woman must be willing to engage in protection planning and follow-through. For example, she must be prepared to contact the police, appear in court as a witness, obtain an unlisted telephone number if necessary, obtain a restraining order, and take other steps as necessary to keep herself safe. (ICCLR, 1999, p. 156)

DVERS eligibility criteria provide a glimpse into the assumptions embedded in the design of panic button alarms. These eligibility requirements not only reflect the "carceral creep" (Kim, 2015, p. 24) impacting the design of panic button alarms, but also perpetuate particular perceptions of what types of victims the criminal justice system was willing to support.

Ultimately, DVERS alarms ceased operations in November of 2014 as one Victim Services worker noted, ADT "kind of pulled the program". Though DVERS technologies such as security alarms, necklace pendants, and affixed landline phones were accessible to clients within their homes, these services were limited in capacity. A common critique of the DVERS program

related to its inability to offer services to clients away from the home, such as upon commuting or entering into their communities (Peel Regional Police Board, 2015).

Technological Fixes: 'Filling the Voids' of Panic Button Alarm Programs in Ontario

In response to the limited geographical capabilities of DVERS devices and the simultaneous rise of portable cellphones in the late 1990s, offshoots of panic button alarm programs developed in Ontario. The *SupportLink* "program was developed to help prevent violence against women and provide support to those in danger" (Rogers, 2009, para. 1). According to the Peel Regional Police Service Board (2015), "the SupportLink initiative involved the issuance of pre-programmed '9-1-1' cellular phones to clients to allow them added safety when away from the home (out of range of DVERS)" (p. 3). Through SupportLink, the pre-programmed '911 cellphones' were administered by Victim Services and made available to clients experiencing domestic violence in locations across Ontario. Beginning in 1998, two pilot sites were established in Ottawa and Barrie (Ghafour, 2000) and "following the success of these programs, SupportLink was expanded in 2001 to service 20 locations in Ontario"[12] (Rogers, 2009, para. 4).

Though limited data exists on this panic button alarm program, SupportLink statistical reporting did occur in two fiscal years (2011-2012 and 2012-2013). In this timeframe, the Government of Ontario reported serving 3,049 female clients in 2011-2012, and 3,265 in 2012-2013. The program also supported 78 male clients in 2011-2012, and 77 in 2012-2013 (Ontario Data Catalogue, 2015). It is not clear whether the term 'served 'refers to the number of devices issued, or the volume of calls for support utilizing SupportLink's pre-programmed phones.

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[12] *SupportLink* locations included: Barrie, Ottawa, Whitby, Bracebridge, Orillia, Peterborough, Markham, Brantford, Bolton, St. Catharines, Guelph, Brampton, Napanee, North Bay, Sudbury, Timmins, Toronto, Strathroy, Sarnia and Essex (Rogers, 2009).

In the end, while ADT Services covered the costs associated with issuing and maintaining AWARE panic buttons, SupportLink initiatives were funded by private citizen donors across Ontario (Ghafour, 2000), as well as financially supported by local police services, Ericsson Communications, Rogers AT&T and the Government of Ontario (Peel Committee Against Women Abuse, 2006; Rogers, 2009). By early 2015, SupportLink phones were phased out of use by Victim Services (Peel Regional Police Board, 2015).

The evolution of panic button alarms and their adoption in Ontario depict how these devices were "co-produced" (Jasanoff, 2015, p. 3) with a "socio-technical imaginary" (Jasanoff, 2015, p. 4) premised on the idea that science and technology have the capacity to resolve complex problems affecting the criminal justice system (Granja, 2021). As discussed in Chapter 1, Jasanoff (2015) defines "socio-technical imaginaries" (p. 4) as "collectively held, institutionally stabilized, and publicly performed visions of desirable futures" (p. 4) that are sustained through shared understandings of the social world and order and are favourable to advancements in science and technology. The geographical expansion of this technology from the United States through to the device's uptake in Ontario demonstrates how collectively held visions of desirable futures successfully permeated efforts to reduce domestic violence victimization in Canada. Even when limitations were identified in the use of a panic button alarm, technological modifications were introduced to re-design the device. The default to fix technology's shortcomings with more technology provides a clear example of how visions of panic button alarms' capabilities to offer safety to victims have been stabilized. As service providers were "fearful that [they] might deny a woman in need" (ICCLR, 1999, p. 156), they turned to unprecedented solutions that favoured advancements in science and technology as an effort to curb violence.

In addition, visions of panic button alarms as safety-enabling tools to respond to gender-based violence cases in Ontario were part of a broader "carceral creep" (Kim, 2015, p. 24). According to Kim (2020),

> I use the term carceral creep to suggest the incremental and often imperceptible advance of carceral forces that led to the eventual domination of crime control within a feminist social movement field that was once almost devoid of its presence. (p. 254)

Kim's discussion of the carceral creep supports the examination of panic button alarm programs to consider how this development has similarly moved into Ontario to influence supports and services for victims of gender-based violence cases. As efforts to respond to gender-based violence are aligned with the criminal justice system's aims, Turgoose and McKie (2021) detail how these devices can perpetuate victim stereotypes, increase victim blaming, and reinforce economic barriers to accessing technologies designed for victims. This renders "a process of carcerality inflected with care" (Musto, 2016, p. 4) as the design of panic button alarms intended to be a tool for victim safety reflect pro-criminalization responses to gender-based violence. Ultimately, the adoption of pro-criminalization requirements in the design of panic button alarms reflect a "socio-technical imaginary" (Jasanoff, 2015, p. 4) in which science and technology are seen as a solution aligned with the goals of the criminal justice system to respond to domestic violence in Ontario. This approach stabilizes visions of panic button alarms as a favourable solution to gender-based violence.

The Evolution of Panic Button Alarms: EyezOn's Mobile Tracking Systems

Once DVERS alarms were pulled from the field and SupportLink phones were phased out, some Ontario police services acknowledged that this left a "gap in service" (Peel Regional Police Board, 2015, p. 3) for individuals experiencing domestic violence. Some regions

introduced temporary measures, such as the Peel Region, by "conduct[ing] research for a GPS technology which w[ould] enhance victim safety, in that the alarm is no longer restricted to a client's residence" (p. 3). Some temporary measures introduced included the use of alternative panic button alarm devices, such as the *SafeTracks GPS Canada* (Peel Regional Police Board, 2015). SafeTracks GPS Canada straddles the "judicial monitoring" line by providing "GPS electronic monitoring technology for tracking offenders [and] supporting domestic violence victims" (SafeTracks GPS Canada, 2022, para. 1). Although these devices were in use in Ontario for a limited time, focus quickly shifted towards the use of EyezOn's[13] Mobile Tracking Systems beginning in 2012.

In response to the void left by the termination of DVERS and SupportLink programs, select Victim Services locations across Ontario formed a new partnership with EyezOn Corporation beginning in 2012 and formally launching in 2013. The designer of the MTS for EyezOn is the current Vice President (LinkedIn, 2022). The design and development of the Mobile Tracking System for EyezOn followed their 14-year career working in Internet crimes and online undercover investigations for the OPP (Nickel, 2006).

The current partnership between EyezOn and Ontario Victim Service providers was spearheaded by Stella Weese in 2012 and subsequently launched in late 2013 (Monteiro, 2013). Weese, the executive assistant of Victim Services Hastings, Prince Edward, Lennox and Addington, advanced the use of Mobile Tracking Systems to the program's current implementation by applying for an Ontario Trillium Grant (Crosier, 2020). Based on these efforts, Victim Services Hastings, Prince Edward, Lennox and Addington became "the first site

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[13] EyezOn designed and currently supplies Mobile Tracking Systems to Victim Services providers in the province of Ontario.

where the system went live" (Crosier, 2020, para. 8) and subsequently, 10 pilot sites across

Ontario were launched in partnership with EyezOn in November 2013 (Monteiro, 2013; EyezOn

Twitter, 2013).

Following this partnership and pilot launch, Ontario Victim Service providers and

EyezOn Corporation advocated for the implementation of Mobile Tracking Systems at the

federal level through presenting at the Government of Canada's Victims and Survivors of Crime

Week Symposium (The Policy Centre for Victim Issues Department of Justice Canada, 2014).

As of 2023, of the 48 Victim Services sites in Ontario, 16 locations have been identified as sites

that provide Mobile Tracking Systems to clients experiencing high-risk gender-based violence

(Ontario Network of Victim Service Providers, n.d.).

The introduction of technology and subsequent evolution of panic button alarm programs

to align with the aims of the criminal justice system reflects a broader optimism in technology to

offer safety and support to victims at risk for harm and/or lethality at the hands of a current or

former intimate partner. As shortcomings are identified in the technology across various

historical points, technological modifications to account for these faults are embraced as

promising solutions to respond to gaps in pro-carceral responses to gender-based violence

prevention efforts. The implementation and 'improvement' of panic button alarm programs

demonstrate a vision that evolves with advancements in technology. Ultimately, these

advancements are perceived to fill the gaps in what may have been inhibiting service providers'

ability to ensure victim safety and subsequently seek justice in the criminal legal system.

The Design of the Current Panic Button Alarm Available in Ontario

This section provides an in-depth examination of the device and its design features

currently offered to clients of high-risk gender-based violence cases in Ontario. The EyezOn EZ-

130 Mobile Tracking System is the current Mobile Tracking System utilized by Ontario Victim Service providers. The device resembles a small pager that has one indented button on the front face. The indented button was designed to reduce incidences of false alarms. When the button is activated, a silent alarm is triggered. These alarms are communicated via satellite signals, which offer extended coverage to clients in remote areas that may not have reliable access to cellphone service. The link formed through this alert aims to facilitate a timely law enforcement presence in response to a high-risk gender-based violence emergency.

Similar to the chain of action triggered by a home security alarm, a Mobile Tracking System alert is sent to EyezOn Security Services for dissemination to the appropriate regional police dispatch. Upon receiving the alert, dispatch alerts law enforcement to a 'Priority 1' call, indicating the highest level of priority response. Through the device's silent alarm and subsequent response, the device aims to provide clients with access to 'enhanced safety' at the click of a button. As one Victim Services worker noted:

> …it is a much faster connection to 911. So whereas you have to unlock a cell phone or know the process in being able to call 911 without unlocking a phone and then you have to go through the phone call and answer questions and things like that. This fast tracks all of that part by the single touch of a button.

The Mobile Tracking System also features a client portal that offers detailed information to Victim Services and law enforcement on the client, along with the previous occurrences that warranted the implementation of a Mobile Tracking System.

In the client profile through the EyezOn Portal managed by Victim Services, EyezOn, Victim Services staff, and law enforcement are able to access a wide range of information on the client. The EyezOn Portal includes a client's a) date of birth, b) physically identifying features

including height, weight, eye colour, hair colour, and identifying markers (i.e. tattoos), c) recent headshot, d) home address and description of the home (i.e. bungalow, semi-detached, townhouse, brick, siding, garage, sidewalk), e) other occupants of the homes' name, date of birth, and relationship to client, f) vehicle information (make, model, colour, plate) g) phone number, h) device battery information (battery charge level and last date of battery charge), i) speed of travel, h) latitude and longitude coordinates, and j) a map with the client's GPS location updated every five seconds.

The portal also links law enforcement to court documents (i.e., court rulings, no contact orders, release orders), high-risk assessments, offender details, occurrences and charges, safety plans, and any other relevant documents positioned to inform a timely and well briefed law enforcement presence at the scene of a high-risk gender-based violence emergency. Law enforcement, Victim Services, and victim advocates regarded the availability of this information as beneficial to enhancing the level of safety law enforcement are able to provide to victims in cases of high-risk gender-based violence. As one Victim Services worker explained,

> …instead of having to call 911 and go through the full report of what's going on, what the concerns are, this device will send an alert silently to police immediately and it will bring up a full description of the applicant or victim, the associated occurrences or charges that have been laid against an accused, and the accused's information. So police have all the information they would need to respond to a call immediately right at their dashboard.

Ontario Victim Services assert that Mobile Tracking Systems have a number of 'benefits'. On one Victim Services website, the Manitoulin Northshore Victim Services writes that these devices: "a) place a priority on victim safety, b) promote an improved response to

victims, c) respect an individual victim's autonomy, d) promote a community-wide response to reduce domestic violence" (2021, para. 3). The goals and objectives of the program are:

> to assist in the prevention of domestic violence and criminal harassment, b) to assist in the protection of persons who are identified at high risk of experiencing violence, c) to assist high risk persons in providing a safe environment for themselves and their children, d) to assist clients throughout the judicial process, e) to fulfill an advocacy and educational role, f) to support the process of empowerment, and g) to assist clients in restoring a sense of normalcy to their lives. (Manitoulin Northshore Victim Services, 2021, para. 6)

Obscuring the Mobile Tracking System from the Public Eye

Both the design of the Mobile Tracking System and the administration of the program have been designed to obscure the use of these perceived safety-enabling devices from perpetrators of violence, and more broadly, the public. Victim Services workers who I interviewed noted the perceived value in the design of the device and administering the program in an obscure manner:

> When [clients] do have a cell phone on them, it is oftentimes the first thing looked for by a perpetrator. Whereas the Mobile Tracking Systems is not something well known, it is not something that a perpetrator knows what it looks like.

Another participant perceived that the lack of information available to the public on this program as advantageous for clients and service providers:

> There isn't a lot of information on the MTS out there for a reason. It's mostly because we don't really want people to know that these things exist. Like, there is a value in the fact

that they are not known about because then abusers aren't necessarily looking for them, if

that makes sense.

Although the perceived intention of obscuring the MTS program from the public is to limit

abusers' awareness of the devices, this poses unintended consequences for victims of gender-

based violence. Importantly, this approach limits opportunity for outside shareholders, including

marginalized communities, to contribute to the development of the technology or critique its

current use as so little information is available on Mobile Tracking System programs.[14]

Ultimately, when discriminatory practices are embedded in the design of technology, it poses the

risk of inhibiting opportunity to "buil[d] a just and habitable world" (Benjamin, 2019, p. 14).

Narrow Perspectives on Victim Behaviour: Eligibility Criteria and Tracker Use

Agreements for Mobile Tracking Systems

Though each Victim Services location across Ontario has the ability to create their own

eligibility criteria for Mobile Tracking Systems, a textual analysis of Victim Services' sites

criteria demonstrated that most program locations abide by the criteria established in the pilot

stages of the program by Victim Services Hastings, Prince Edward, Lennox and Addington. For

instance, Victim Services of Waterloo Region provide 15 criteria that clients must meet in order

to gain access to a Mobile Tracking System. These criteria include, but are not limited to:

[a] the client has made a complaint to police or other community agencies of physical

violence or threats of violence the accused is charged with or is subject to a court order for

a physically violent or threatening offence,

[b] the client is separated from the accused and reconciliation is not an option,

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[14] This idea will be explored further in Chapter 5 through assessing the Mobile Tracking
System's direct link to police services, and more broadly, the criminal justice system as its
primary response mechanism to gender-based violence.

[c] there is a high risk for the accused to act violently,

[d] the accused has a disregard for authority, and the client is willing to work cooperatively

with the criminal justice system. (Victim Services of Waterloo Region n.d.a)[15]

Next, when an individual experiencing high-risk gender-based violence meets the

eligibility criteria laid out for the Mobile Tracking System program and wishes to become a

client of the program, they are required to sign a *Tracker Use Agreement*. Tracker Use

Agreements set out parameters for a client's actions while they carry a Mobile Tracking System.

Tracker Use Agreements include, but are not limited to: updating Victim Services if they make

any changes to their physical appearance, fully cooperating with any police investigation related

to pushing the Mobile Tracking System alarm which triggers a call for assistance, completing

and following a safety plan, abstaining from contact with the accused, and abstaining from

activity that would put themselves "at further risk by impairing physical and or mental capacities

i.e., intoxication" (Victim Services of Waterloo Region, n.d.b, p. 2).[16]

The design of the Mobile Tracking System and associated eligibility criteria are reflective

of and perpetuate particular understandings of victim behaviour. These understandings of victim

expectations are embedded in the design of the device and reflect a broader imaginary

surrounding victim engagement in the criminal justice system.

Balsamo's (2011) discussion of technologies as expressions of culture is useful in

thinking about the Mobile Tracking System. Balsamo proposes that "innovations are not objects"

(p. 8). Explaining this further, she argues that "innovations are not really things, but are better

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[15] For a publicly available overview of the criteria established in the Waterloo Region for the Mobile Tracking System program, see Appendix E.
[16] Other sites included in this study follow a shorter version of these eligibility requirements.

understood as assemblages of practices, materialities, and affordances" (p. 8). Innovation is comprised of social elements that

> contribute to the overall meaning of an innovation, including the social practices through which technologies take shape, the rituals and habits engendered by innovative devices, and the social structures that congeal through the use of machines, the consumption of products, the imposition of laws, and the enactment of policies. (p. 8)

As a result, technology is not only an innovation, but an "expression of cultural understandings" (p. 8) that are embodied in technological devices. When considering the design of the Mobile Tracking System, the innovation, or design of the device not only encompasses the physical characteristics of the Mobile Tracking System, but also the ideas embedded in the development of the device. The ideas embedded in the design of the device may be economic, political, social, or cultural in nature, and shape how meaning is constructed and the device is used in the social world. The Mobile Tracking System embodies cultural understandings of victim behaviour perpetuated by the criminal justice system. In particular, the design of the MTS reflects the idea that 'good' or 'real' victims cooperate with restrictions on their behaviour and are willing to comply with the criminal justice system when seeking support. This reflects a particular vision of who victims of gender-based violence are and how they are expected to interact with the criminal justice system.

Moreover, Benjamin's (2019) notion of "discriminatory design" (p. 5) provides a conceptual lens to reflect on how biased assumptions may become embedded in the design of artifacts used in everyday life. As discussed in Chapter 1, Benjamin argues that "discriminatory design" (p. 5) involves the "investigation [of] how social biases get coded, not only in laws and policies, but in many different objects and tools that we use in everyday life" (p. 5).

Discriminatory design draws attention to technology's role in governing public life through obscured policy and design considerations that in turn, serve to "enforce social boundaries and deepen inequalities" (p. 6).

Mobile Tracking Systems reflect elements of "discriminatory design" (Benjamin, 2019, p. 5). The parameters established in the design of the device and eligibility criteria reflect particular narratives of who the "ideal victim" (Christie, 1986, p. 18) is. Christie (1986) defines "ideal victims [as] a person or a category of individuals who when hit by crime most readily are given the complete and legitimate status of being a victim" (p. 18). Further, this criteria is also reflective of a pro-carceral response to gender-based violence and promotes expectations of how victims should conduct themselves while involved in the MTS program to be the "ideal victim" (Christie, 1986, p. 18). This approach to designing tools for victims of gender-based violence is reflective of the broader "socio-technical imaginary" (Jasanoff, 2015, p. 4) which sees the devices as a solution to respond to domestic violence in Ontario. This approach is subjected to the "carceral creep" (Kim, 2015, p. 24), as the use of Mobile Tracking Systems is aligned with the goals of the criminal justice system and reflects particular cultural understanding and outcomes, such as victim compliance with the criminal justice system for the use of Mobile Tracking Systems.

Narrow perspectives on how a victim who experiences gender-based violence should behave and seek support has the possibility of dissuading some victims from seeking support and safety. For instance, the pressure to involve the criminal justice system may exclude particular populations, including sex workers or non-status immigrant women from seeking support due to a fear of experiencing cultural insensitivity, institutional discrimination, or other harms by police

(Couture-Carron et al., 2022). As a result, these design decisions impact victims of gender-based violence cases ability to seek safety resources.[17]

Funding Mobile Tracking System Programs

The termination of ADT Securities Services' version of panic buttons and the uptake of EyezOn's Mobile Tracking Systems marked an end to the fully funded panic button program. Given EyezOn's position as a for-profit technology corporation, the funding structure for panic button alarms was transformed. This shift required Victim Services to financially sustain the purchase, monthly subscription, upkeep, and maintenance of all Mobile Tracking System devices.

Typically, Victim Services programs are funded by the provincial government. Until April 2022, The Ministry of the Attorney General's Office funded Victim Services programs through The Victims Justice Fund of Ontario, established under the Victims' Bill of Rights in 1996. On April 1, 2022, the province of Ontario transferred "nine victim services programs to the Ministry of Children, Community and Social Services from the Ministry of the Attorney General to ensure a more coordinated approach to delivering services such as crisis intervention and violence prevention programs" (Children, Community and Social Services, 2021, para. 1). However, Mobile Tracking System programs are an exception to this rule and are not funded through this funding source. When select Victim Services locations in Ontario choose to undertake a Mobile Tracking System program by forming a partnership with EyezOn Corporation, all funds are acquired through community donations to financially sustain each Victim Services site's respective program.

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[17] The implications arising from the intrinsic link between the Mobile Tracking System program and the criminal legal system will be explored in greater depth in Chapter 5.

Current funding for Mobile Tracking Systems across the province is acquired through a wide variety of funding sources. These include: community donations from 100 Women Who Care (100 Women Who Care Lanark County, 2019), Rotary clubs (Jessel, 2013), United Way (United Way St. Catharines & District, 2022), Scotiabank (Peters, 2014), Police Service Board (Renzella, 2020), casino funds (Ellis, 2020), and online fundraising platforms such as givingtuesday.ca (Giving Tuesday, 2022) and canadahelps.org (Canada Helps, 2022). Fundraising initiatives have also supported Mobile Tracking System programs, including, but not limited to a Police Chief's mystery dinner (ProAction Cops & Kids, 2017), a Hockey Night Feast & Comedy Show (Victim Services of SDG & A, 2018), charity golf tournaments (Ellis, 2020), the charitable sale of writing journals to the community (Westendorp, 2019a), a darts tournament (Westendorp, 2019b), and an outdoor blues guitar concert (Peters, 2014).

Beginning in June 2022, significant attention was brought to the funding of Mobile Tracking Systems. The Culleton, Kuzyk, and Warmerdam Inquest held by the Office of the Chief Coroner in Ontario brought the funding of these devices into the spotlight. Held to investigate a triple femicide in Renfrew County, The Verdict of Coroner's Jury led to a recommendation of further financial supports for Mobile Tracking Systems. The recommendation detailed that the province should:

> …realign the approach to public funding provided to IPV service providers with a view to removing unnecessary reporting obligations with a focus on service. Draw on best practices in Canada and internationally, and adopt and implement improved, adequate, stable, and recurring funding that incorporates…[including] funding for mobile tracking system alarms and other security supports for survivors of IPV. (Verdict of Coroner's Jury, 2022, p. 4)

Although this recommendation was put forward on behalf of Victim Services organizations in 2022, no funding has been allocated by the Ministry of Children, Community and Social Services from the Ministry or the Attorney General to fund Mobile Tracking System programs to date.

Though this recommendation exists, Victim Services continue to face obstacles funding Mobile Tracking Systems programs in Ontario. At the recent Inquest, a disjunction appeared with regard to the funding of Mobile Tracking Systems in the province of Ontario. Although the recent Inquest Jury recommendations call for further funding for Mobile Tracking Systems across the province, a service provider in this study noted that it was because of the circumstances that led to the Inquest that resulted in governments' wariness to fund such programs. This service provider highlighted that the inherent risk and liability involved in the program through the potential for lethality by a violent intimate partner limits government incentive to fund the program:

> The response that—that I've been told over the years has been, just the level of risk with this program because it is a high-risk nature, Ministries don't want to be involved or have their hands in that. … So going back to what I mentioned kind of at the start of this program not being able to *guarantee safety*. There is a high profile example of somebody having one of these devices and … it ultimately didn't prevent a domestic homicide from occurring. So things like that I think are why in the past ministries haven't funded this [emphasis added].

Competing narratives exist to fund Mobile Tracking Systems. In this case, the shareholders, namely the Inquest Jury working to support victims of gender-based violence and the provincial government, present a disjointed approach to funding such initiatives. While the

Inquest recommendations support a techno-optimist approach to respond to gender-based violence in Ontario, the government demonstrates a hesitancy towards funding such initiatives and embracing this technology on account of the perceived risk associated with the program. To date, the provincial government maintains a neutral stance on Mobile Tracking Systems as there is neither a preventative response (i.e. through legislation to thwart the use of the technology), nor is there any action taken to implement the technology to become a government-funded initiative as the Inquest recommendations have called for.

Limitations in the Design and Development of the Mobile Tracking System

The Mobile Tracking System created by EyezOn emerged in response to perceived shortcomings in services for victims from the perspective of a law enforcement officer. Although the Mobile Tracking System designer declined to be involved in the current study, victim advocates who participated in this project expressed that EyezOn's design of the Mobile Tracking System aimed to respond to the unattended needs of victims observed during the designer's work as an OPP officer in Ontario. Here, actors with involvement in the criminal legal system informed the development and design of the Mobile Tracking System program:

> [The Mobile Tracking System] was created by an OPP officer who retired and he— in his work, that's what he found was he had a struggle with the women who had no coverage, no nothing. So he thought I've got to come up with a program. I've got to do something to help women in cases of domestic violence who haven't got this. So he started this company, saw the needs through the OPP and so after he retired he started this company.

When law enforcement is positioned to interpret the needs of victims, it runs the risk of creating additional barriers for victims of gender-based violence to seek support. Importantly, Ricciardelli, Spencer, and Dodge (2021) interviewed Canadian law enforcement officers to

understand how police perceive victims of gender-based violence. Ricciardelli et al. (2021) argued that officers' perceptions are shaped by their adherence or rejection of narratives surrounding the "ideal victim" (Christie, 1986, p. 18). The design of the Mobile Tracking System reflects a narrative of the "ideal victim" (Christie, 1986, p. 18) as victims are required to comply with pro-carceral responses to gender-based violence when seeking support. The obligation victims face to comply with the criminal justice system reflects the notion of who the "ideal victim" (Christie, 1986, p. 18) is, what their relationship to the criminal justice system should be and, perpetuates particular expectations of victim behaviour upon engaging with the Mobile Tracking System program.

In addition, scholars have highlighted the inherent power imbalance embedded in the criminal legal system for individuals in positions of authority versus victims in cases of gender-based violence;

> The criminal legal system not only has unique material powers (to arrest and detain individuals) but also claims to embody a superior epistemological system that produces true, objective, neutral knowledge, while other disciplines and the individual victim become easily positioned as subjective, biased, and potentially unreliable. (Römkens, 2006, p. 162)

In consequence, the perspectives in which the device was designed versus the population it was designed for present considerable differences in perspective and power.

Moreover, for victims who carry Mobile Tracking Systems, their requests for safety have been aligned with the criminal legal system to be the primary response mechanism. When the device is activated, victims of gender-based violence are connected directly to law enforcement. No other social support agencies are looped into the SOS activation response. In effect, the

design decisions embedded in the Mobile Tracking System reflect a carceral conception of 'safety'. This response demonstrates how law enforcement perceive victims' experiences of gender-based violence to be, and subsequently impose their preferred methods of responding to such incidents onto victims to achieve safety. This includes safety both in the immediate as they responding to the request for help, and more long-term through pursuing the prosecution of gender-based violence cases in the criminal justice system.

In response to these power differentials, it is relevant to consider how the design considerations embedded in the Mobile Tracking System, including aligning the device with the criminal justice system, surface as unforeseen implications for victims of gender-based violence. In particular, Chapter 5 will explore how aligning emergency responses to gender-based violence with the criminal justice system's ideals reflects what Pence (2001) refers to as "institutionally actionable" (p. 222) cases for gender-based violence. Institutionally actionable cases emerge when "practitioners orient their work toward specific processes and incidents" (p. 220) that emphasize specific characteristics of cases and experiences. Through this subjective process, law enforcement act to shape instances of gender-based violence "with a version of the case that is institutionally actionable" (p. 222) in the criminal legal system. In the context of high-risk gender-based violence cases involving the Mobile Tracking System, the design of the device and its intricate connection with the criminal justice system cause it to act in a manner that prioritizes the prosecution of cases in the criminal justice system.

Overall, the development of panic button alarm programs in the United States, and subsequent uptake in Ontario by Victim Services providers, reflects a shift towards embracing not only science and technology, but also a pro-criminalization response to gender-based violence cases in Ontario. Various panic button alarm technologies have been implemented, then

adapted to reflect advancements in science and technology that appear favourable to supporting victims' needs. This displayed reliance on technology reflects the "carceral creep" (Kim, 2015, p. 24) and a broader "sociotechnical imaginary" (Jasanoff, 2015, p. 4) that regards technological devices facilitated through the criminal justice system as having the capacity to provide safety in cases of gender-based violence. In consequence, "techno-optimism" (Granja, 2021, p. 254) in the Mobile Tracking System has led to significant uptake by Victim Services providers across Ontario to rely on Mobile Tracking Systems as a safety solution for victims experiencing high-risk gender-based violence, without considering the unperceived implications associated with this widespread uptake. Next, Chapter 5 will consider how Mobile Tracking Systems are perceived and used in Ontario, and investigate the impact of these devices on criminal justice responses to gender-based violence cases.

Chapter 5: The Use and Impact of Mobile Tracking Systems in Ontario

Mobile Tracking Systems are currently used across select Victim Services sites in Ontario. However, some service providers highlighted how they see the devices as being so valuable, that their use should expand across the province:

> I've connected with other regions who been trying to bring this program in, or who have successfully been able to bring the program to their regions too. I think it's something that should be essentially a staple in every region across the province, if not beyond, because of just how valuable it is and how unique of a program it is.

Perceptions such as this are common and highlight the widespread sense of value in the Mobile Tracking System program.

This chapter details the current use and impact of Mobile Tracking Systems in Ontario. Since the activation of Mobile Tracking Systems by victims of gender-based violence is limited, this chapter explores how the device is seen, understood, and discussed by service providers. First, I provide an overview of the current implementation practices of Mobile Tracking Systems across select Ontario Victim Services sites and identify variation between multiple sites' administration of the program. Next, I examine the impacts associated with the current use of Mobile Tracking Systems administered by Victim Services in Ontario. I consider these impacts by first exploring the perceptions of safety related to Mobile Tracking Systems. I then show that some service providers perceive Mobile Tracking Systems to provide a sense of empowerment and sense of safety to victims, though the capabilities of the MTS device are at times conflated with physical security for victims experiencing gender-based violence. This misalignment derives from conflating a victim's sense of feeling safe with the practical capacity of the device to prevent physical harm or death. Next, I consider how the current use of this technology not

only reflects a particular understanding of victims through its history and design as explored in Chapter 4, but also perpetuates particular perceptions and expectations of victim behaviour that impact those who experience gender-based violence. I argue that embedding law enforcement in the criteria for accessing Mobile Tracking Systems marginalizes populations from accessing the program, shapes expectations of victim behaviour to align with the aims of the criminal justice system, blurs the lines between victims and offenders, and ultimately forces victims to comply with the criminal justice system to have access to the Mobile Tracking System program. The assumptions that accompany the current use of Mobile Tracking Systems have direct implications for victims involved in the Mobile Tracking System program. In doing so, I will answer the following two sub research questions outlined in Chapter 1: How is the Mobile Tracking System device perceived and used in cases of gender-based violence in Ontario? What impacts have Mobile Tracking Systems had on how police and Victim Services respond to cases of gender-based violence in Ontario?

Current Use of Mobile Tracking Systems for GBV Cases in Ontario

The use of panic button alarms for cases of gender-based violence in Ontario has evolved to encompass a wide range of circumstances for victims. Though panic button alarms emerged as a response to the risks posed by domestic violence as noted in Chapter 4, Mobile Tracking Systems are now largely seen as a technological device capable of reducing risk for individuals experiencing different forms of gender-based violence, including sexual violence, intimate partner violence, stalking, and sex trafficking.

Depending on the region where a Mobile Tracking System is distributed, particular forms of gender-based violence are given primary consideration for the use of the devices. For instance,

Victim Services of Kingston and Frontenac, prioritize issuing Mobile Tracking Systems to individuals escaping human trafficking. As one Victim Services worker explained,

> So because there are such close correlations between trafficking and grooming and intimate partner violence, oftentimes we are using these devices because the perpetrators are coming back and seeking out to harm the victims. So even if they are successful in exiting the human trafficking ring that they have been involved with and returning home, there are still some pretty significant safety concerns in regards to their 'boyfriends' coming back and retaliating towards them or trying to coerce them back into the human trafficking world.

For Victim Services of Waterloo Region, a majority of MTS devices are issued for clients experiencing intimate partner violence due to a perceived ease in application to such cases. As one Victim Services worker detailed,

> Intimate partner violence is definitely the more common incident that we use the MTS devices for; not to say that we don't use them for other things, but *for better or for worse the predictability of the cycle of those cases often just lend themselves better to this kind of program* … it's really much more simple in some cases [IPV] for us to identify like, what are the really dangerous periods, what are the not so dangerous periods. It's also easy for us to identify, I don't wanna say easy, but more easy for us to identify 'Okay so when has the risk gone down? When has the, you know, when can we say that this person might not be as high of a risk as they once were?' That is a more difficult thing to gauge when we're dealing with things like human trafficking, or when we're dealing with things like random acts of violence, or random acts of sexual assault or violence. We don't issue devices in those cases nearly as much [emphasis added].

Depending on the Victim Services site, the prioritization provided to cases of gender-based violence varies.

Regional differences exist in the duration a client is eligible to carry a Mobile Tracking System. Depending on the region in which a client accesses the MTS program, the length of eligibility may either be indefinite, or capped to accommodate the demand of the region. For instance, in the Waterloo region, three to six months is seen as the ideal timeframe for a client to carry an MTS device, as one Victim Services worker explains:

> I would say we really aim for that six month mark and I know we're trying to transition now to even less than that. So I am signing agreements for three months right now. There's a lot of complex variables at play because clients typically don't want to return these. You know it's something that they've leaned on for safety, it's something that makes them feel safe in the community, and even though we really try and emphasize that it's a short term program, that typically goes in one ear and out the other the minute they've had it for longer than three months. It kind of becomes a crutch in a way, so yeah I would say on average six months.

At the other end of the spectrum, individuals accessing Mobile Tracking Systems through Victim Services Renfrew County may carry the device indefinitely:

> So there's no limit on the time either. So if they need it for five years, we'd leave it. Or over time, they feel that the threat is waned or ebbed, or there hasn't, you know, been an incident or whatever.

The point at which a threat has 'waned or ebbed' is difficult to distinguish, particularly in light of the recent triple femicide in Renfrew County where Basil Borutiski took the life of an individual carrying a Mobile Tracking System:

But then you look at like, when you look at the Borutiski one, right, there was a good—

nothing had happened for so long, right. Maybe you get complacent. You know, but I also

go back to you can't go to walking around every second of the day thinking somebody's

going to kill you every second.

In this study, regions that emphasize the short-term nature of the program give victims in

urban regions of the province limited access to MTS devices, as devices are returned after

several months, whereas in some rural regions of the province, victims are given unconstrained

access to this resource perceived to enhance safety. As a result, some victims may have the

device for several months and then are required to return it, while others have no parameters on

their length of time with the device. In effect, individuals experiencing gender-based violence in

Ontario have differing levels of access to MTS devices depending on where they may be

accessing the program from across the province.

Another factor affecting the implementation of Mobile Tracking Systems is *high-risk*

case designation. According to a police officer in the Waterloo Region, high-risk case

designation refers to gender-based violence cases where the sanctions imposed by the criminal

justice system have not led to an adequate reduction or control of risk. For a case to be

considered high-risk, the circumstances of the case must undergo review by the *high-risk review*

committee or *high-risk case review team*[18]. This committee includes police officers, typically

involved in the Intimate Partner Violence Unit, the Crown Attorney's Office, Victim Witness

Assistance Program, Probation and Parole, Victim Services Unit (embedded in the police

service), and Victim Services. Together, these units draw on the Ontario Domestic Violence Risk

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[18] The term is used to refer to committees that impose high-risk designations onto offenders, is
used interchangeably by law enforcement and Victim Services staff and often varies by region.

Assessment (ODARA)[19] scoring, along with subjective knowledge of risk associated with gender-based violence, to identify individuals who require a high-risk designation. This designation positions individuals to be referred to the MTS program, though they are not exclusively reserved for this designation of case, nor does the lack of designation preclude a client from applying to the MTS program.

Next, the point at which Mobile Tracking System are administered to high-risk gender-based violence clients vary based on the circumstances a victim is facing. Generally, Mobile Tracking Systems are implemented when: a) an offender has been released on an undertaking or appearance notice (police release), b) an offender has been remanded and released on bail, c) an offender has been released following a custodial sentence. More broadly, as one Victim Services worker from Renfrew County pointed to, the circumstances that required enhanced victim safety measures are when clients are facing "imminent death or threat of death". One police officer in the Waterloo Region noted that Mobile Tracking Systems are administered "where risk has been well simply put, where risk has been identified to meet that level." They continued by saying,

> so these are obviously victims where we've identified a risk that has—probably can't be controlled as effectively as we would like. I say that that's probably not a proper choice of words, but the risk is identified, and the risk is high. That's probably a really simple way of putting it, but that's what we're talking about, right?

Compounding this high-risk assessment and designation, the demand for Mobile Tracking Systems has increased in light of evolving pandemic safety measures. In particular, a

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[19] The Ontario Domestic Violence Risk Assessment (ODARA) "is an actuarial risk assessment that calculates how a man who has assaulted his female partner ranks among similar perpetrators with respect to risk. It also calculates the likelihood that he will assault a female partner again in the future" (Mental Health Centre Penetanguishene, 2005, p. 1).

shift towards non-custodial sentences for offenders occurred in Canada at the onset of the

pandemic (Statistics Canada, 2021). One Victim Services worker recounted that,

> once the pandemic started a lot of custody sentences were either being released
>
> early or judges were opting not to go with a custody sentence for individuals. So there
>
> was a large increase of high risk offenders identified in the region, which meant that the
>
> demand for the program increased significantly too.

Notably, the Waterloo Region experienced an increased number of individuals deemed high-risk

due to heightened rates of violence during the pandemic. This increase has led to challenges with

the capacity of the MTS program in Waterloo. One Victim Services worker noted,

> The biggest challenge would be capacity, as I'd mentioned before having anywhere from
>
> 60 to 100 high risk offenders in the region, we are still severely below the demand for these
>
> devices. And even saying that, one high-risk offender may have multiple victims associated
>
> with them too, so yeah. We're still quite mismatched there.

This perception is supported by Statistics Canada (2021), which found that the early months of

the pandemic saw a record-breaking decline (15%) in offenders held in correctional facilities.

Additionally, service providers shared a collective distrust in offenders' adherence to

non-custodial sentences and court conditions, which also impacted the demand for the program

as clients sought safety during the pandemic. One Victim Services worker discussed how:

> …many people who commit these crimes, almost all of them, are able to get out on bail or
>
> get out in the community while defending themselves of the charges. And some people are
>
> feeling incredibly afraid, despite court orders that sort of on paper state that they are not
>
> the person who's committed the alleged—allegedly committed an offence, is not allowed

to have contact with the person. That's just paper. And I think some people are feeling

extremely afraid like 'how is this piece of paper going to help me?'

These service providers' perceptions reflect a lack of compliance with release order conditions,

coupled with a rise in demand for enhanced safety measures for clients experiencing gender-

based violence due to pandemic-related safety concerns. Under these circumstances, the MTS

emerges as capable of responding to victims' unattended needs to provide safety when court

orders fall short. However, when technology is positioned as a solution to the shortcomings of

the current system intending to provide victim safety, other consequences arise for victims

engaged in the MTS program, as discussed below.

Perceptions of Safety when Carrying a Mobile Tracking Device

This section considers how techno-optimism in the Mobile Tracking System across its

development and design has stabilized the device as a technology seen to be capable of reducing

violence in cases of gender-based violence. According to Pinch and Bijker (2008), a technology

is "stabilized" (p. 109) through consensus building, a process whereby "people decide on the

uses, meaning, and specific design of a technology based on their interests, needs, and values"

(p. 109). Pinch and Bijker argue that "as different relevant social groups coalesce around a

particular design and meaning for a technology, the technical design begins to stabilize and

becomes much more difficult to reinterpret" (p. 109). This process plays a significant role as

what appears to be the natural use or meaning of a particular technology is in actuality the

product of social negations (Pinch and Bijker, 2008). In the context of Mobile Tracking

Systems, service providers situate this technology as a device that provides enhanced safety to

individuals experiencing gender-based violence cases. These techno-optimist visions are realized

through service providers envisioning the current use of Mobile Tracking System as a) a tool of

victim empowerment and b) a tool to provide victims with a sense of safety and peace of mind. However, these visions of the MTS' abilities reflect an unsubstantiated belief in the safety capabilities of the device, and an inability for technology to provide practical physical safety in the face of high-risk gender-based violence emergencies. As will be discussed in the following sections, these collective perceptions of MTS programs pressures clients to play an integral role in the criminal justice system that aims to advance gender-based violence convictions.

Perceiving Technology as Empowering: Providing A 'Sense of Safety' to Victims of GBV

Across Ontario, individuals working in support of the criminal justice system stabilize affirmative visions of the Mobile Tracking System by aligning victim empowerment with the device's technological abilities. Some service providers assume that this technology empowers victims and gives them control over their own safety. One police officer recounted their perception of this experience by noting:

Not being a victim myself. I'm just going to put myself try to put myself in their shoes but… It gives them [victims] a measure of control in a situation that maybe to some extent, you know, provides them with a lack of feeling of control. Obviously, they can't control the offender's behavior, but it gives them a measure of control in their own safety, right?

Additionally, service providers envisioned how carrying a Mobile Tracking System empowers women to become the 'expert' in charge of their own response to threats of victimization. Reflecting this idea, one victim advocate stated:

A woman is the expert in her situation. She knows if he's coming for her. And I'd be apt to believe her if she says he's coming for her because she knows him best. She knows the situation. She's lived with them. She knows what he's capable of. And so, you know, bystanders like ourselves or police or victim services or other service providers like we—

we're not in it. We're just basing our information on what she's given us and our knowledge.

Right. So she's the expert. She's the one who's going to tell you he's coming for her. And

then you best believe it, because he probably is.

Other service providers, including one Victim Services worker noted how victims may be

emotionally empowered by the technology and stated, "I think it also provides a little bit of

reassurance and comfort to victims who have experienced, you know, unimaginable trauma at—

at the hands of someone that was supposed to love them". Many service providers thus see the

MTS as a technology that can empower victims after their experience of violence.

Additionally, while the Mobile Tracking System is positioned as an enhanced safety tools

for high-risk gender-based violence cases, the MTS is also seen as providing clients with a *sense

of safety* or *peace of mind.* Here, as victims are assumed to feel empowered through carrying the

device, many service providers suggested that victims were able to re-engage in the community

with an enhanced sense of safety, due to the technology itself and the digital connections it

facilitates. One Victim Services worker acknowledged the impact of this technology, including

its ability to support victims in regaining their independence and suggested:

The biggest piece is the peace of mind that it [the MTS] can provide. So a lot of times

individuals who have experienced gender-based or partner violence are already

experiencing isolation. Either their abuser is isolating them for *[sic]* family and friends, so

they no longer have traditional supports that they might've had previously … Having this

device provides a bit more, I guess, confidence for them to be able to leave their home and

go about their daily lives. It brings that autonomy back to the individual so they feel like

they can take back their life and get back into their habits and routines and things like that.

Victim Services workers at other sites in Ontario echoed these ideas of the technology offering victims peace of mind and facilitating their engagement in the community:

A lot of individuals are finding they are able to establish some more freedom in being able to enter into a public domain feeling a little more secure knowing they have these devices on their belts or wherever they are keeping it and it is handy if they are approached in a public setting they have this tool available to them. It is giving them back their social lives, being able to go back to work, grocery shopping again and being comfortable in their own home.

Service providers also drew attention to the value of technology through facilitating emergency support for clients. One victim advocate considered how clients have a sense of peace of mind as Mobile Tracking Systems provide a direct link to law enforcement:

So for victims, I would say like a peace of mind. Even though they could call 911, if they can get it taken care of with just the push of a button, knowing that it's GPS monitored and even if they were taken and dragged and brought to a car and driven somewhere, it would follow them wherever they're going. And just the convenience. It's hard to call police in a very high stress situation, even if it's calling 911. And even if you call 911, you have to have a conversation with the dispatcher and then the accused is going to know that you made that call. So I think that the peace of mind of like, it's just a push of a button, it's GPS tracked, the police would have all the background information. … The ease and simplicity of it I think gives a good reassurance, or at least a peace of mind. Like having the confidence to if stuff is going to go down, it's as simple as this. And so there's that, peace of mind.

Overall, service providers perceived Mobile Tracking Systems to empower victims of gender-based violence as they offered a sense of safety and peace of mind to those carrying the devices.

Conflating a Sense of Safety with Physical Security

While service providers claimed how the MTS provided victims a level of control over their safety, at times they conflated the potential of the technology to provide *physical security* with a *sense of safety*. Some service providers perceived Mobile Tracking Systems to provide a sense of empowerment and sense of safety to victims, though the capabilities of the MTS device were at times conflated with physical security for victims experiencing gender-based violence. This misalignment derives from conflating a victim's sense of feeling safe with the practical capacity of the device to prevent physical harm of death. The perception of achieving physical safety was also conflated with the criminal justice system. Service providers often cited the ability of the Mobile Tracking System to secure victims' well-being when faced with a gender-based violence emergency, particularly through victims' engagement with the criminal justice system. One Victim Services worker highlighted this perception as they discussed the enhanced level of safety victims experience when they are connected to the criminal justice system through the MTS program:

> So one part of the victim-centred approach that police are leaning more towards taking when there are these— these risks associated with either a victim in a case or an offender being deemed a high-risk offender, once charges are laid and somebody's brought into custody, it's out of the police's hands in terms of when they're released and where they are released and that sort of thing. It's up to the courts at that point. So police having an option to refer a client for that enhanced peace of safety will provide them with a bit

more reassurance that they can continue on with any investigation or any further matters

needed while this is before the courts and know that there is safety in place for that client.

A police officer corroborated this notion by asserting that "when the chips are down, it [the

MTS] gives them [victims] a last line of defense that gives them immediate connection with

emergency response", while a Victim Services worker commented on the program's value by

noting, "the response to the program is overwhelmingly positive and it [the MTS] is just seen as

a really valuable tool for clients' safety".

Perceptions that envision the Mobile Tracking Systems as capable of providing physical

security to high-risk victims of gender-based violence reflects a techno-optimist vision of the

MTS's ability to address gender-based violence. Here, the devices are positioned as a tool, or

'crutch', to keep women safe from perpetrators of violence, despite the limited evidence to

demonstrate the device's ability to provide physical security. Granja (2021) mirrored these

perceptions in their recent study that evaluated the use of electronic monitoring for offender

supervision in Portugal. Granja (2021) argued that

> electronic monitoring can work both for and against victims of domestic violence. When
>
> this system is promoted as a tool that guarantees security and justice, within an imaginary
>
> of techno-optimism fed by public institutions and the media, it becomes difficult to assess
>
> to what extent it may fail its promise. (p. 260)

In the case of Mobile Tracking Systems, the conflation of one's sense of safety with physical

security is problematic as it perpetuates the notion that technology is capable of securing

physical safety; when in reality, it may only be providing victims with a sense of safety by

facilitating a call for support. No matter the priority response provided by law enforcement, the

technology does not eliminate the time gap between impending violence and the presence of law

enforcement responding to an emergency. For other victims, a direct line to law enforcement might not provide a sense of safety at all, particularly for those who have experienced institutionalized discrimination, fear police involvement will make the situation worse, and/or who do not feel that the police can offer the support they are seeking (Hulley et al., 2022; Couture-Carron et al., 2022).

Recognizing the Limitations of Technology for Gender-Based Violence Cases

In the current study, some service providers presented critical perspectives on Mobile Tracking Systems. One service provider pointed to the restrictions associated with utilizing technology as a response to prevent gender-based violence as it provided the illusion of physical safety:

> I don't know if it prevents [gender-based violence] by any means. I couldn't say that. I just know it keeps women's peace of mind. It gives them a sense of security that they didn't have before. That's all, you know, I'm saying. It's just— it's just another tool, right? I don't want them thinking it's the end all be all. But they know if they push that button somebody's coming … I see the difference it makes in them and their peace of mind that they know if something happens, somebody's going to find them. It's sad.

Other service providers echoed the limitations of this technology to provide physical safety to victims experiencing gender-based violence:

> Unfortunately, there is nothing 100% safety proof. It is definitely something that, you know, it'll ideally get the police there faster because it's supposed to have a high priority response. However, we know it can take seconds for something to happen. Right, … she pressed the button, and something happened. They didn't even get the opportunity because

it's still going to take a couple of minutes to get there. And if there's somebody who's going

to do something immediately, it's not going to matter what kind of safety they have.

Another service provider commented on the technology's inability to prevent physical harm or

death. Notably, this service provider drew attention to what a response to an MTS alarm may

equate to for victims of gender-based violence cases:

Interviewer: How many calls using these devices would you typically get in a given year?

Participant: Do you mean how many times would they go off?

Interviewer: Yeah. How many times would they typically go off?

Participant: Most of them, never. If, like I say, if they go off, the woman's dead.

The inability for this technology to prevent a client's death was recounted by Victim Services

staff at the recent Renfrew Inquest. Victim Services staff noted that a client told her that "at least

if I press it, you'll know I'm dead and you'll know where my body is" (Cassista as cited in

Boesveld, 2022).

Finally, service providers offered broader reflections on the limitation of utilizing and

relying upon technology as a safety response for gender-based violence:

We make it pretty clear, explicitly state, that this device is not a guarantee to anybody's

safety. At the end of the day, it is a piece of technology, and you know as we can see

technology doesn't always work to its full potential. So there's always that risk that the

device is not working properly.

Ultimately, enhanced physical safety for victims is perpetuated by some service providers

involved in administering MTS programs in Ontario, while other service providers acknowledge

the physical limitations of the technology. These service providers maintain the perception that

the MTS empowers victims but acknowledge the distinction between a victim's sense of safety

through empowerment and security where physical harm is mitigated. Service providers' belief in this technology to support victims of gender-based violence emphasizes the techno-optimism surrounding the use of the Mobile Tracking System in Ontario.

Aligning Victim Behaviour with the Aims of the Criminal Justice System

This section investigates how Mobile Tracking System programs reflect and perpetuate specific perceptions of victims that experience gender-based violence in Ontario, which shape their involvement in the criminal justice system. I begin by situating MTS programs in Ontario within the criminal justice system. Since the criminal justice system is embedded in the administration of the MTS program, the program determines which victims have access to this perceived safety resource. I then discuss how the regulations of the MTS program perpetuate a narrow understanding of how victims who experience gender-based violence should conduct themselves. As I argue below, approaching women's safety in a manner that is framed to advance criminal convictions is a direct reflection of carceral feminism.

The final section critiques how the Mobile Tracking System is seen, understood, and discussed by service providers as they utilize the devices in gender-based violence cases. I draw attention to how invasive safety measures for victims of gender-based violence blur the line between victims and offenders. This overreach is characterized by the state's omnipresence in victims' lives by imposing rigid sanctions that tracks and monitors their behaviour. Finally, I argue that victim's access to this program is contingent on their cooperation. Should victims be viewed as 'uncooperative' by the criminal justice system, their access to Mobile Tracking Systems is revoked. This directly impacts the resources available to victims upon seeking support in cases of gender-based violence.

Situating Mobile Tracking Systems Within the Criminal Justice System in Ontario

As noted during the Coroner's Inquest in Renfrew County, the MTS program administered

by Victim Services in Ontario "is hinged upon involvement in the criminal justice system"

(Boesveld, 2022, para. 21). Not only do referrals derive from individuals working in support of

the criminal justice system, but the response to a Mobile Tracking System is also provided

exclusively by law enforcement. For victims to obtain and remain eligible to carry a Mobile

Tracking System, among other administrative requirements, program eligibility states that "the

client is willing to and does work cooperatively with the criminal justice system and follow

through on criminal charges and other protection measures as suggested" (Victim Services

Wellington, 2021, para. 4). Parameters of the MTS program in Ontario, such as this one, dictate

how victims of gender-based violence are expected to engage with the criminal justice system.

Victims are expected to be compliant, supportive, and give evidence that works to advance

convictions for gender-based violence cases across the province. As a result, the criminal justice

system is intimately embedded in the design of the MTS program in Ontario; victim access to the

MTS program cannot be separated from the criminal justice system.

Overlooking the Needs of Marginalized Victims of GBV

When responses to gender-based violence are intricately linked to the criminal justice

system, it narrows the spectrum of victims who are willing and eligible to seek particular

resources. Benjamin's (2019) notion of "discriminatory design" (p. 5), which she defines as "a

conceptual lens to investigate how social biases get coded, not only in laws and policies, but in

many different objects and tools that we use in everyday life" (p. 5) is useful here. This concept

sheds critical light on the requirements of law enforcement presence embedded in the design of

the MTS program. In particular, parameters that require the involvement of the legal system for

victims to gain initial access to this perceived safety resource imposes a flawed assumption that the criminal legal system is a viable and safe option for all victims of gender-based violence. One Victim Services worker acknowledged this challenge for victims of gender-based violence cases;

> The only part that's difficult is if a woman hasn't come forward to the police and she's still living in fear. And this, you know, because sometimes women don't want to involve the police, right. Because that complicates so much more, right. So, um, sometimes a woman doesn't want to because they have to buy into the police and have the police working with them as well to prevent their homicide.

Contrastingly, some service providers' perspectives differed on the involvement of law enforcement in cases of gender-based violence across MTS sites in Ontario, as one service provider asserted:

> I know that the eligibility criteria of police involvement is a bit of a hang up for some agencies for violence against women sector possibly because it initially feels like we are forcing them to cooperate with police. I don't feel that that is the intent of that eligibility criteria. I think that that is there just so we do the best that we can do to support a victim. Police have certainly never come to us pressing for information in regards to a victim. I have yet to have that experience. First and foremost is just ensuring that a victim is okay.

However, taking a carceral approach to safety work neglects to consider systemic obstacles women who experience gender-based violence confront when seeking help. Hulley, Bailey, and Jones (2022), identify barriers for marginalized women that include "institutional racism, immigration laws, culture and religion, and issues of cultural competence, and lack of diversity within frontline services" (Hulley et al., 2022, p. 1). This notion is supported in the Canadian

context as Couture-Carron et al. (2022) drew attention to exclusionary implications for immigrant women facing domestic violence due to fear of law enforcement and experiences of cultural insensitivity. Additionally, victims experiencing sexual exploitation through trafficking and sex work may also be dissuaded from engaging in the program as a result of historically criminalized responses to sex trafficking victims (Musto, 2016). Römkens (2006) further echoes this idea by asserting that "the involvement of criminal law to protect victims can eclipse other intervention perspectives and can unintentionally lead to the marginalization of victims' interests" (p. 162). In consequence, when criminal justice system actors are the required response mechanism to an alarm, and cooperation with the criminal legal system is embedded in the design of the program, it serves to "enforce social boundaries and deepen inequities" (Benjamin, 2019, p. 6) for women seeking safety. Consequently, those in need of more safety resources may in fact be dissuaded from engaging in not only the program, but also broader safety planning when their safety is contingent upon compliance with the criminal justice system.

"Ideal Victims" of Gender-Based Violence: Regulating Victim Conduct

Should a victim of gender-based violence break past the barriers to access the Mobile Tracking System program, there are expectations inherent in the design of the program that not only reflect, but also perpetuate a particular vision of victims of gender-based violence. The result of discriminatory design practices sustain a narrow perspective of who victims of gender-based violence are, and how they are expected to act to support convictions in the criminal justice system. These visions produce "institutionally actionable" (Pence, 2001, p. 222) cases, as gender-based violence safety work through the Mobile Tracking System is oriented towards the state's prosecutorial interests.

First, the criteria established to carry a Mobile Tracking System constrains victim behaviour. These requirements include measures that: track a victim's location and movements, limit travel outside of the province, set restrictions on who they can engage with, and restrict their consumption of alcohol and drugs. It is important to note that when a victim agrees to the parameters of the MTS program, it typically occurs at a point where past violence is recent and the threat of future harm is prevalent. One victim advocate highlighted the timeframe when victims typically request a Mobile Tracking System:

> The most typical time that I'd be making referrals is in that phone call and they call to say, 'Hey, the accused is released, here's the next court date. Here are their terms. They're obviously on a no contact order, on an no attendance order'. And then the victims say, 'well, they've breached release orders in the past. They're going to be at my door in seconds probably', and then we start making referrals from there. …at this stage in which I'm interacting with them, they would be fully cooperative in that moment, because in that moment that I'm interacting with them, they're terrified that the offender is going to re-offend. They're fully embracing any involvement from the police and the criminal justice system.

The requirements embedded in the development of the MTS program work to shape victims' behaviour in line with narrow cultural definitions of "ideal victims" (Christie, 1986, p. 18). As noted in Chapter 4, Christie (1986) defines "ideal victims [as] a person or a category of individuals who when hit by crime most readily are given the complete and legitimate status of being a victim" (p. 18). This perspective favours victims who are fully compliant with criminal legal authorities, as demonstrated through "contemporary constructions of the 'ideal' victim as one who is innocent, passive, suffering, non-retaliatory, and forgiving" (Wechsler, 2022, p. 508).

This perception of the ideal victim as one who consents to and uses panic button alarms is reflected in some legal cases in Canada. For instance, a 2021 family law case highlighted how a crisis situation "culminated with the police providing a panic button to the mother because of the volatile situation" (KG v. HG, 2021, p. 6). The language in this case demonstrates the severity of violence experienced by the victim who is then positioned as worthy of intervention by the state through a Mobile Tracking System.

Wechsler (2022) considers how the state utilizes "victims as instruments" (p. 507) to invoke particular action in the criminal justice system. They argue,

> criminal legal actors often employ highly coercive practices to secure GBV victims' participation in the criminal legal process as evidentiary tools, including arresting and incarcerating victims through material witness warrants and contempt power, criminally charging and threatening charges against them, and conditioning key assistance measures upon their full cooperation with law enforcement. (p. 507)

One service provider echoed this notion that the Mobile Tracking System has the capacity to facilitate victim engagement in the criminal justice system to attain convictions:

> I mean it might be a little bit of a dramatic statement but, this— the point of the program is that we're trying to reduce the degree to which victims are endangered which allows victims to be less afraid, hopefully, which would hopefully translate to an increased confidence and participating in the judicial process. A lot of times, especially an intimate partner violence, for a number of reasons victims may choose to not participate in the process. This may stem from fear of the abuser, it may stem from fear of repercussions from their community, from their family, from their friends. So if we can make them feel

a little bit safer that may encourage them to participate more actively, which is good for the justice system. It allows possibly for justice to be served in cases where it may not.

Programs designed to provide safety to victims of gender-based violence by advancing criminal convictions reflect a carceral feminist approach to violence prevention and safety. According to Law (2015), "carceral feminism describes an approach that sees increased policing, prosecution, and imprisonment as the primary solution to violence against women" (p. 2). Through the design and the perceptions of the MTS program, the device displays a particular approach and understanding of the goals of violence prevention and safety. MTS devices appear to be designed in manner that aligns with the aims of the criminal justice system through supporting prosecution and incarceration of individuals responsible for perpetrating gender-based violence.

In effect, the criteria of MTS programs not only reflect, but have potential to perpetuate expectations of particular forms of victim behaviour, which position victims to act "in furtherance of state prosecutorial interests" (Wechsler, 2022, p. 507). Namely, the MTS program positions gender-based violence victims to be witnesses to provide testimony in support of the Crown as they pursue charges and convictions against perpetrators in gender-based violence cases. The state has the capacity to pursue convictions regardless of victims' autonomy, as their cooperation appears regulated through adherence to the Mobile Tracking System criteria.

Victims or Offenders? Invasive Measures for Victims of Gender-Based Violence

Victims of gender-based violence are exposed to invasive sanctions while carrying a Mobile Tracking System. Though these measures are framed as a means to enhance victim safety, there is carceral overreach characterized by the state's omni-presence as it tracks and monitors victims' behaviour.

However well-intentioned the MTS program may appear to be, Mobile Tracking Systems monitor and restrict victims' actions. As discussed in Chapter 4, this occurs by the tracking of victims' location and movements as the device emits a constant GPS signal that is recorded on their EyezOn profile. The device and its associated eligibility criteria also impose limitations on victims' travel as the devices cannot be taken outside of the province, set restrictions on who they can engage with through requiring adherence to court orders, and restrict their consumption of alcohol and drugs through the Tracker Use Agreement and eligibility criteria. Service providers highlighted the invasive aspects of the MTS program, as clients can be monitored at the state's leisure:

> It's a very intrusive program. And I'm very honest with the women. Like, I can pull you up and see what you're doing today at 3:00, I know where you are. Like, I can—it tracks you the whole time, right. So that part I always say, it's intrusive. And the OPP if they wanted to, they could see what you were doing two weeks ago on a Saturday night. So if your car's at a bar every Saturday night, you know what I mean like, they're going to know that. Right. So it's not as though, they don't. But I just I want to be honest with them [victims] and upfront and say it's— it is very intrusive, the program, in that sense of, you know.

Although this supervision is presented as a safety measure, it exposes victims to "carcerality inflected with care" (Musto, 2016, p. 4) through the state's omnipresence in women's everyday lives. Monitoring victims complicates the perspective that victims are not offenders by placing them under suspicion, and that monitoring occurs for their safety.

Service providers across MTS regions recounted clients' experiences of feeling as though the technology was employed to monitor their behaviour, rather than offer protection. As one victim advocate said, "[the client] was leaving it behind day and day, and they [Victim Services]

were contacting her to say 'it's been left in this— you know, we suspect you're not using it and it's been left'. And she's just frustrated and said, 'I feel like it's more tracking me'". Additionally, this service provider reflected on how clients often felt as though they were criminals; "I've had women say, 'it feels like I'm the one, you know, in prison. I feel like I'm the one who's— who's being monitored, and I feel like I'm wearing this, you know, this thing like an ankle bracelet, as if I've done something wrong'". These experiences reflect the carceral state's reach and influence over women's everyday lives. In consequence, monitoring the activity of MTS clients blurs boundaries between punishment and protection for victims of gender-based violence.

Contingent Safety: Revoking Devices from "Uncooperative" Victims

Victims' conduct that is not aligned with the regulations of the Mobile Tracking System program is often perceived unfavourably by service providers. Victim Services may respond to this conduct by labelling particular victims as 'uncooperative' and revoke their access to a Mobile Tracking System. Inherent in this act is the contingent nature of Mobile Tracking Systems; should victims not comply with the regulations designed to support the criminal justice system, their access to this technological tool perceived to reduce violence may be revoked.

To illustrate this dilemma, some service providers recounted how victim cooperation in the program can be a complicated experience for victims of gender-based violence cases. Explaining this further, one service provider said,

> It is very, very hard to kind of— it seems like such a concrete, like severed, like nothing. Like you can never ever have a conversation again or meet or be in any close proximity or anything from— from that individual. So I think that was a really hard swallow. I think for some —for some that are just not there yet.

This was echoed by another service provider who highlighted the ever-evolving dynamics of relationships:

> …because relationships are so dynamic, … [clients may face circumstances] where they're not willing to cooperate with the justice system anymore. Or, they're not as afraid anymore. I'm not typically around for that because I'm more in the crisis mode of getting it started. But I can see beyond that initial conversation where those requirements could start to not apply to a victim anymore.

When victims' behaviour steps outside of the criteria for carrying a Mobile Tracking System, their actions are subject to revision. For instance, clients who engage in behaviour perceived to be of a 'risky' nature may find their eligibility for the MTS program under review. As one Victim Services worker explained,

> There is a term in there [the eligibility criteria] that says you agree to not put yourself at increased risk by indulging in alcohol and drug use. By that we don't mean you can't drink or you can't use drugs, but it's if—if it were to become apparent that somebody was, you know, putting themselves at risk by consistently being out, you know, in a setting that is dangerous and then potentially putting themselves at exposure to the accused or something like that, that would be something that we would consider. And clients, sometimes it just comes down to clients don't want to be micromanaged I guess, which really isn't what the program does, but on the face of the terms it may appear that way.

Should victims engage in behaviour that is misaligned with the aims of the MTS program and more broadly, the pro-criminalization response to gender-based violence cases, the perceived safety-enabling technology may be revoked. As one Victim Services worker explained,

If they [victims] are no longer complying or causing challenges to their case itself, so whether they are facilitating breaches for the accused or anything like that, we would then request the device back because they wouldn't be complying with their safety plan and looking out for their safety. So it would almost suggest that the device is no longer needed if they're choosing to either engage in what we would call risky behaviour or leading towards a reconciliation with their—their abuser.

Victims' diminished adherence to the program through a lack of compliance with specific criteria that regulate their behaviour perpetuates a notion of being an 'uncooperative victim'. In this moment, a client's access to perceived safety-enabling technology is contingent on their willingness to comply with the requirements of the program that serve the state's prosecutorial interests. When victims do not engage with their safety tools 'the right way', victims face the potential of being blamed for any subsequent harm (Granja, 2021).

Reflecting a similar trend, Granja (2021) drew attention to victim blaming behaviours for individuals who are electronically monitored in Portugal. When a woman was found deceased in her car, government officials drew attention to how she had not 'properly' used her electronic monitoring device. The circumstances of her death contributed to "blaming victims in judicial contexts" (p. 260) as the victim was perceived to be neglecting their role in maintaining their personal safety, effectively placing the blame back onto victims for their victimization.[20]

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[20] Granja (2021) cites one case in Portugal where the 'improper' use of an electronic monitoring device contributed to victim blaming narratives: "According to the Directorate-General, although they are not 'judicially' obliged to use such equipment, victims of domestic violence must do so for 'personal protection', which 'did not happen' to the woman who was found dead on Wednesday inside a car in Vila Nova de Gaia. (...) In an interview with Lusa, João Moreira, Director of Organization, Planning and External Relations Services at the Directorate-General for Reinsertion and Prison Services, pointed out that no victim of domestic violence is obliged by justice to use the Victim Protection Unit (VPU) device, but should do it for the 'preservation of

A Canadian legal case has also highlighted how panic buttons can be used against victims. In a family law case titled KG. v. HG (2021), the court articulated how "the mother share[d] denigrating information about the father with the children, thereby creating the impression that the father is dangerous. Examples include telling the children about the panic button the mother was given by police" (p. 11). In this sense, the panic button, meant to increase safety, was used as an object of harm against a victim in the legal system.

Overall, current administrative practices of Mobile Tracking Systems across select sites in Ontario reflect and perpetuate a particular understanding of not only who, but how victims of gender-based violence are expected to seek support. As victims' participation in the MTS program hinges on their adherence to a carceral response to gender-based violence cases, victims face compounding barriers when attempting to access support. In consequence to the Mobile Tracking System's direct attachment to the criminal justice system, not only are particular populations of victims marginalized from accessing the program, but their ability to attain this perceived safety-enabling technology is dependent on their cooperation with the state's prosecutorial interests for gender-based violence cases. This has direct impacts on victims as if proper adherence to program requirements is not upheld, involvement in the Mobile Tracking Systems may be revoked.

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life'. 'Although there is no legal obligation to force the victim to use the device, the victim must carry the device', reiterated João Moreira, admitting that the case of the woman who turned up dead last Wednesday inside a car could have had another outcome if she had the device with her" (Lusa, 2017 as cited in Granja, 2021, p. 260).

Chapter 6: Conclusion and Future Directions

Mobile Tracking Systems have received significant media attention as a tool that some claim will enhance "freedom" (Laughlin as cited in Crosier, 2020, para. 10) and "security" (para. 9) by "empower[ing]" (Clark as cited in Monteiro, 2013, para. 11) victims in cases of gender-based violence in Ontario. Mounting calls to fund additional MTS devices and programs have emerged in Ontario in light of pandemic safety measures, recommendations that draw attention to MTS devices in the Renfrew Inquest, and surrounding provinces taking significant action to fund GPS monitoring technologies for gender-based violence cases (Verdict of Coroner's Jury, 2022; Laucius, 2022; Hayes, 2022; Wong, 2023). Despite this rapid increase in attention by the media, government, service providers, and wider public, MTS devices utilized in Ontario have been understudied. To understand the impact of employing panic button alarms in cases of gender-based violence, this thesis has employed an interpretivist, qualitative approach to explore the use of Mobile Tracking Systems as a tool perceived to reduce violence for victims of gender-based violence in Ontario.

Through the examination of 91 textual documents and 10 semi-structured interviews with service providers involved in case referral and the administration of Mobile Tracking Systems, this study has laid out the history, development, and use of MTS devices in the context of gender-based violence cases in Ontario, and has investigated the impact of panic button alarms on criminal justice responses to gender-based violence. Tracing the development of panic button alarms to their current use in Ontario has illustrated a shift toward pro-carceral safety measures that embrace technology as a perceived tool to reduce gender-based violence. This approach not only reflects, but also perpetuates particular assumptions about victims, that pressure them to align their behaviour with the goals of the criminal justice system. As this thesis reveals,

designing and administering a technological tool for victims of gender-based violence that embeds the criminal justice system in its response to gender-based violence cases has significant impacts for individuals seeking support.

This conclusion begins with a summary of findings that respond directly to the overarching research question and sub-questions on the implementation of Mobile Tracking Systems by Victim Services providers in Ontario. I then address how these findings offer empirical, theoretical, and methodological contributions to existing literature, and address their importance to the current moment as GPS monitoring technologies rise in popularity as a tool perceived to support victims of gender-based violence cases. I then discuss the limitations of this study, including the limitations of the sample, as well as the institutional and pandemic-related barriers I encountered while recruiting participants for this project. Finally, I recommend future directions for empirical research beyond the province of Ontario to continue the investigation of GPS monitoring technologies as a response to gender-based violence cases.

Summary of Findings

This study responds to the following overarching research question: How have Mobile Tracking Systems been implemented in Ontario Victim Services to address gender-based violence, and what are the implications on criminal justice responses to gender-based violence in Ontario? As described in Chapter 1, additional sub-questions used to guide this study include:

1. How was the Mobile Tracking System device designed?

2. For what purpose and to whose benefit was the Mobile Tracking System device designed?

3. How is the Mobile Tracking System device perceived and used in cases of gender-based violence in Ontario?

4. What impacts have Mobile Tracking Systems had on how police and Victim Services respond to cases of gender-based violence in Ontario?

Chapter 4 began by highlighting the emergence and design of panic button alarm programs from the United States into Ontario as a tool perceived to assist victims who experienced gender-based violence. Tracing the historical emergence of panic button alarms reveals how the uptake of these devices reflected a broader shift towards embracing science and technology, as well as a pro-criminalization response to gender-based violence cases in Ontario. Chapter 4 also revealed how throughout Ontario's history of utilizing panic button alarms, a variety of technologies were implemented, then altered to reflect advancements in science and technology that appear favourable to supporting victims' needs. This displayed reliance on technology reflected the "carceral creep" (Kim, 2015, p. 24) and a broader "sociotechnical imaginary" (Jasanoff, 2015, p. 4) that regarded technological devices implemented through the criminal justice system as capable of providing safety to victims in cases of gender-based violence. This analysis revealed that "techno-optimism" (Granja, 2021, p. 254) in the Mobile Tracking System has led to significant uptake by Ontario Victim Services providers as the devices are perceived as a safety solution for victims of gender-based violence cases; although, this has occurred without considering the unperceived implications associated of this optimistic uptake.

Chapter 5 revealed the impacts of Mobile Tracking Systems on criminal justice responses to gender-based violence cases in Ontario. This analysis showed that current administrative practices of Mobile Tracking Systems reflect and perpetuate a particular understanding of not only who, but how victims of gender-based violence are expected to seek support. As victims' participation in the MTS program hinges on their adherence to a carceral response to gender-

based violence cases, victims face compounding barriers when attempting to access support. Not only does involving the criminal legal system pose the risk of dissuading victims of gender-based violence from reaching out for support who are members of marginalized communities, it serves to further ostracize them from measures to reduce violence. In effect, approaching women's safety in a manner that is framed to advance criminal convictions excludes women and further advances carceral feminist aims in the province of Ontario. Finally, this study revealed that the lines between victims and offenders can become blurred. When victims are perceived as uncooperative by not adhering to MTS program requirements, involvement in the MTS program may be revoked as victim access is contingent on cooperation with the regulations.

Study's Contributions and Implications

By examining the history, development, and use of MTS devices in the context of gender-based violence cases in Ontario, this study contributes to the qualitative literature critically evaluating the use of technology, as well as criminal justice-based interventions, as a response to gender-based violence. This study also contributes to this body of literature by focusing particularly on the perspectives of individuals in positions of power who work within and on behalf of the criminal justice system. The study's findings also have direct implications for policy and practice given the devices' current use in the province of Ontario.

The current project makes theoretical contributions to literature on technology and gender-based violence as my analytical approach draws on concepts within Science and Technology Studies and critical perspectives on law and criminal justice to investigate the design features and assumptions embedded in Mobile Tracking Systems. Since few scholars have drawn on these frameworks to analyze panic button alarms in the context of gender-based violence, the findings I have presented in this study expand the application of these theoretical tools to a

technological device gaining significant traction in public discourse. These theoretical tools have guided my attention to critically evaluate the assumptions embedded in MTS devices, as well exposed the negative impacts associated with utilizing Mobile Tracking Systems in the criminal justice system for victims of gender-based violence cases in Ontario.

The project's epistemological approach presents a notable methodological contribution to the literature. The interpretivist qualitative framework I drew on to collect unobtrusive data and semi-structured interview data marks a unique methodological approach to examining panic button alarms for gender-based violence cases. An interpretivist, qualitative orientation to this project has allowed me to explore Ontario service providers' interpretations and perceptions of MTS devices as they make meaning of the use of this technology. The study's methodological approach offers a valuable contribution to existing scholarly literature.

This thesis makes various empirical contributions to the literature on panic button alarms. The study's distinctive focus on Canada through analyzing panic button alarms utilized in Ontario marks a unique empirical contribution. Additionally, critically investigating MTS devices in Ontario as a tool perceived to reduce risk in cases of gender-based violence provides a new and novel approach to examining the implementation of GPS tracking technologies. Building empirical research on Mobile Tracking Systems at a time where service providers are calling for additional devices and increasing funding for these programs is critical to the administration of services to victims of gender-based violence.

In addition to these scholarly contributions, the findings of the project have implications beyond academia. In particular, the project's findings are valuable for Ontario Victim Services providers, police services in Ontario, and other agencies that support victims of gender-based violence cases (i.e., Victim Witness Assistance programs and shelter staff) as they draw attention

to how the implementation of panic button alarms as a perceived safety-enabling technology for gender-based violence cases can engender implications not yet recognized in the field. These implications directly impact victims accessing support services for gender-based violence cases. Finally, the findings can be drawn on to inform policy and practice related to the GPS tracking technologies as the province of Ontario continues to be subjected to mounting calls to fund panic button alarm technologies.

Limitations of the Research

This study has several limitations. As discussed in Chapter 3, the process of "studying up" (Nader, 1972, p. 1) aims to examine institutions and individuals in positions of power to develop knowledge into those who hold, exercise, and delegate power and responsibility. In the case of Mobile Tracking Systems, there is a direct link between the devices and the criminal justice system, as panic button alarms intersect with and are overseen by individuals in positions of power. This intersection posed direct barriers to conducting the current study into Mobile Tracking Systems' history, development, use, and impact. In particular, I had difficulty engaging a member of the company involved in the design of the Mobile Tracking System. As well, the OPP's Research and Program Evaluation Unit created barriers to accessing study participants by requiring Research Agreements and Memorandums of Understanding for participation, then failing to respond to the request. These institutional barriers limit the development of knowledge into the use of technology as a response to gender-based violence cases in Ontario.

In addition, the context in which this study took place, the COVID-19 pandemic, had the potential to affect the uptake in recruitment and sample of this study. Service providers in the violence against women sector in Ontario were part of the sample for this study and were exposed to an increased potential for burnout, heightened trauma and violence, and secondary

trauma during the COVID-19 pandemic (Burd et al., 2022). These circumstances had the possibility of impacting the recruitment processes in this study. Although, as noted in Chapter 3, this study employed a variety of methods to circumvent these barriers by engaging study participants involved in case referral and the administration of Mobile Tracking Systems across various sites in Ontario.

The geographical focus of this study may have also introduced some limitations, as the analysis centered on specific sites who have implemented MTS programs in the province of Ontario. This in-depth focus has the possibility of limiting the opportunity to conduct a wider multisite analysis by comparing other panic button alarm programs being utilized in other provinces and territories in Canada. Additionally, the geographical focus on Ontario limited the comparison of any remaining ADT panic button services offered in the United States.

A further limitation of this project relates to the sample. During this study, I chose to omit users (victims/clients) of Mobile Tracking Systems. This decision was made based on personal experience volunteering with Victim Services as a Crisis Responder and upon reviewing literature that considers second and third re-victimization and re-traumatization (Martin and Powell, 1994; Clevenger and Navarro, 2021). Rather than exposing victims to the potential of re-traumatization in the course of research, investigating this topic through the lens of service providers allowed me to delve into the design, use, and impact of the devices from the perspectives of professionals who administer, make referrals, and respond to Mobile Tracking Systems in Ontario. Given service providers' proximity to Mobile Tracking Systems, their interaction with these devices in a professional capacity offered a particular understanding in these areas of investigation.

A final limitation of my sample related to the "in-network" (Small, 2009, p. 14) effect. Small's work acknowledges that oftentimes, those who engage in similar habits (i.e., adopting Mobile Tracking System programs) may in fact be part of a social network. With this in mind, it is possible that Victim Services sites that offered Mobile Tracking Systems to victims of gender-based violence are part of an in-network and may hold similar values and characteristics in relation to the devices. However, my decision to interview service providers in different roles across various sites in Ontario ensured diversity in perspectives on the use and impact of Mobile Tracking Systems.

Future Directions

Scholarly literature on panic button alarms could take on new methodological directions for future research. First, the investigation of panic button alarms could expand geographically to include other forms of GPS tracking technologies currently utilized in other areas of the country. As discussed in Chapter 4, *SafeTracks GPS Canada* devices straddle the "judicial monitoring" line by providing "GPS electronic monitoring technology for tracking offenders [and] supporting domestic violence victims" (SafeTracks GPS Canada, 2022, para. 1). By increasing the geographical scope of research on panic button alarms across Canada, new methodological insights can be developed to further investigate the use and impact of GPS tracking technologies for victims of gender-based violence cases. The expansion of the investigation into panic button alarms across the country would be beneficial as the device's implementation and uptake through the criminal justice system appears to follow a similar techno-optimistic trajectory to Mobile Tracking Systems.

Future research could also draw on new samples, such as the users of panic button alarms, to investigate the impact of a rising reliance and use of GPS tracking technologies in

Ontario and the broader Canadian context. Specific populations could form the sample of future research, such as individuals who have experienced technology-facilitated gender-based violence (TFGBV). This harm may impact their ability, perception, and willingness to seek perceived safety responses to gender-based violence that are premised on the use of further technology through GPS tracking devices. Moreover, future research could consider how MTS and other GPS tracking technologies may be co-opted as tools to carry out TFGBV by perpetrators of violence and/or institutions. Therefore, gaining the perspective of users of GPS tracking technologies could derive new methodological insights.

Future scholarly research on panic button alarms may inform future policies across the country, as well as influence funding priorities for interventions for gender-based violence cases. Engaging the perspective of users of panic button alarms would provide new and novel insights into the users' experiences with these technologies and broaden our understanding of the impacts of employing these devices on victims.

Concluding Thoughts

Price (2012) argues that we should be cautious when considering the role of the state in gender-based violence interventions:

> The dominant current in the work of criminologists, advocates, policy makers, psychologists, shelter administrators, and so on, has contributed to understanding violence as uniform and as domestic. … As they propose calling on the power of the state (in the form of prosecutors, police, judges, welfare office, and so on) to stop violence, they absolve the state as a force, sometimes a violent force, in structuring the lives of women. (p. 3)

Price's observations into the state's role in the lives of victims of gender-based violence provides a cautious reminder of how interventions, and more specifically technological interventions through GPS tracking technologies, may not serve victims of gender-based violence cases. For instance, what safeguards may be in place to protect against the MTS as a tool exploited for TFGBV by individual perpetrators, institutions, or the state?

Goodmark's (2017) examination of intimate partner violence cases in the United States encourages scholars and service providers to frame intimate partner violence as a problem related to economics, public health, communities, and human rights. Goodmark's work challenges policymakers to "rethink the current criminal regime" (p. 143) by focusing on the needs of victims through an intersectional lens. Granja (2021) highlights that "techno-optimism" (p. 254) in panic button alarms hinders our capacity to see gender-based violence differently. As such, they encourage service providers to reimagine and seek out alternative solutions to uphold safety for victims of gender-based violence. Reimagining these prevention efforts that move beyond techno-optimist approaches and rather consider economics, public health, communities, and human rights may provide a path to adequately serve victims in a manner that places their interests at the core of gender-based violence case interventions in Ontario.

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Appendix A: Jacobson and Mustafa's (2019) Social Positionality Map

Jacobson and Mustafa
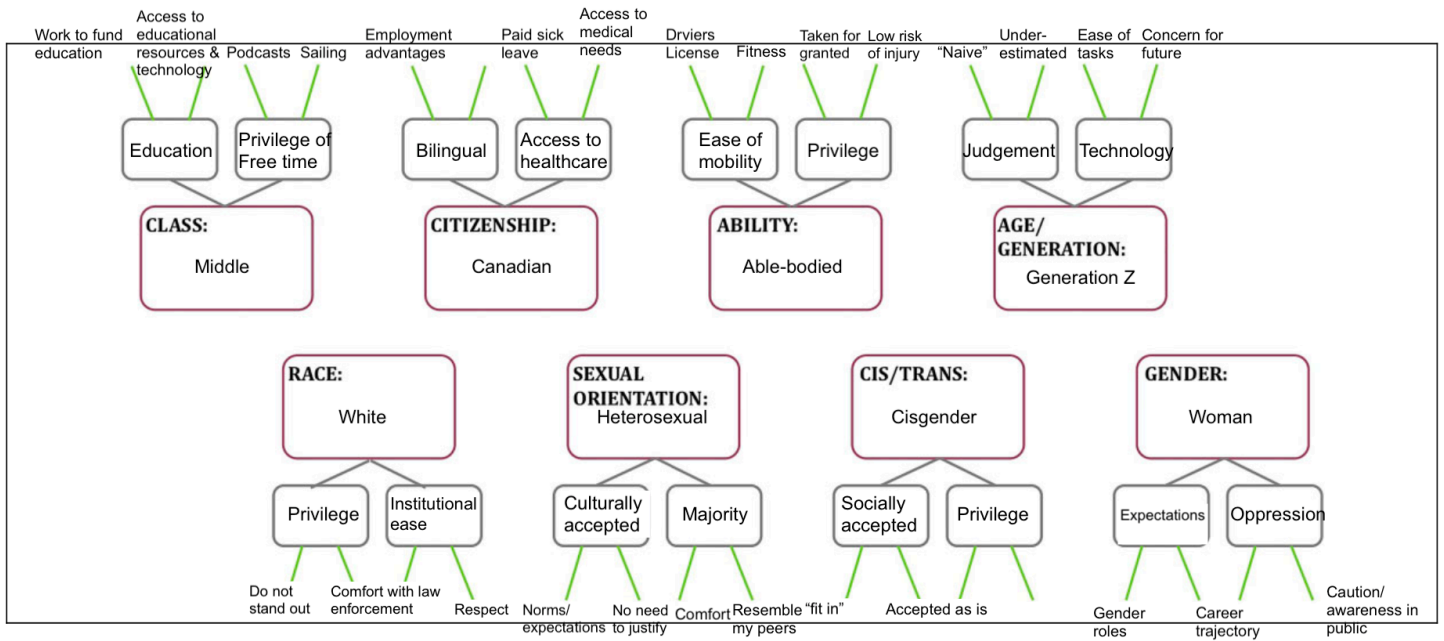
Appendix B: Ontario Victim Services Sites with Mobile Tracking Systems

Ontario Victim Services Sites with Mobile Tracking Systems (n=16)

Victim Services Site	Affiliated Police Service(s)	Population Size
Victim Services of Stormont, Dundas, Glengarry, and Akwesasne	Ontario Provincial Police	Medium (125,000[a])
Halton Regional Police Victim Services Unit	Halton Regional Police Service	Large (548,435[a])
Kawartha/Haliburton Victim Services	Ontario Provincial Police	Medium (179,083[a])
Lanark County Victim Services	Ontario Provincial Police	Small (68,698[a])
Manitoulin Northshore Victim Services	Ontario Provincial Police	Small (13,255[a])
Prescott-Russell Victim Services	Ontario Provincial Police	Small (89,333[a])
Toronto Victim Services	Toronto Police Service Peel Regional Police Service	Large (2,794,356[b])
Victim Services Hastings, Prince Edward, Lennox, & Addington Counties	Ontario Provincial Police	Medium (112,735[ab])
Victim Services Niagara	Niagara Regional Police Service	Medium (447,888[a])
Victim Services of Haldimand-Norfolk & New Credit	Ontario Provincial Police	Medium (109,787[a])
Victim Services of Kingston & Frontenac	Kingston Police Service Ontario Provincial Police	Medium (132,485[b])
Victim Services of Leeds & Grenville	Ontario Provincial Police	Small (69,819[a])
Victim Services of Nipissing District	Ontario Provincial Police	Small (83,150[a])
Victim Services of Renfrew County	Ontario Provincial Police	Small (88,512[a])
Victim Services of Waterloo Region	Waterloo Regional Police Service	Large (623,930[b])
Victim Services Wellington	Guelph Police Service	Small (90,932[a])

Notes:
[a]= 2016 Census
[b]= 2021 Census

Appendix C: University of Waterloo Research Ethics Clearance

UNIVERSITY OF WATERLOO

Notification of Ethics Clearance to Conduct Research with Human Participants

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Principal Investigator: Andrea Quinlan (Sociology and Legal Studies)

Student investigator: Emily Buehlow (Sociology and Legal Studies)

File #: 44491

Title: Victim Service's Implementation of Mobile Tracking Systems for Survivors of High-Risk Gender-Based Violence Cases in Ontario

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The Human Research Ethics Board is pleased to inform you this study has been reviewed and given ethics clearance.

Initial Approval Date: 07/29/22 (m/d/y)

University of Waterloo Research Ethics Boards are composed in accordance with, and carry out their functions and operate in a manner consistent with, the institution's guidelines for research with human participants, the Tri-Council Policy Statement for the Ethical Conduct for Research Involving Humans (TCPS, 2nd edition), International Conference on Harmonization: Good Clinical Practice (ICH-GCP), the Ontario Personal Health Information Protection Act (PHIPA), the applicable laws and regulations of the province of Ontario. Both Boards are registered with the U.S. Department of Health and Human Services under the Federal Wide Assurance, FWA00021410, and IRB registration number IRB00002419 (HREB) and IRB00007409 (CREB).
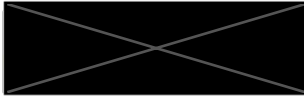
This study is to be conducted in accordance with the submitted application and the most recently approved versions of all supporting materials.

Expiry Date: 07/30/23 (m/d/y)

Multi-year research must be renewed at least once every 12 months unless a more frequent review has otherwise been specified. Studies will only be renewed if the renewal report is received and approved before the expiry date. Failure to submit renewal reports will result in the investigators being notified ethics clearance has been suspended and Research Finance being notified the ethics clearance is no longer valid.

Level of review: Delegated Review

Signed on behalf of the Human Research Ethics Board

This above named study is to be conducted in accordance with the submitted application and the most recently approved versions of all supporting materials.

Documents reviewed and received ethics clearance for use in the study and/or received for information:

file: EB. MTS Interview Guides. Version 1. 2022.06.22.pdf

file: EB. MTS Email Recruitment. Version 2. 2022.07.26.docx

file: EB. Information and Consent Form. Version 2. 2022.07.26.docx

file: EB. MTS Appreciation Letter. Version 2. 2022.07.26.docx

Approved Protocol Version 3 in Research Ethics System

This is an official document. Retain for your files.

You are responsible for obtaining any additional institutional approvals that might be required to complete this study.

Appendix D: Sample Interview Guide

1. Could you start by telling me about your role as a law enforcement officer and the work you do?
   a. How long have you been in this role?

2. I understand that [Insert region] Victim Services offers Mobile Tracking Systems to individuals experiencing gender-based violence.
   Could you tell me about your experience responding to calls involving Mobile Tracking Systems?
   a. How frequently do you respond to calls prompted by these devices?

3. Did you receive any training on Mobile Tracking Systems? If so, what did that involve?

4. When a client activates their Mobile Tracking System (SOS button), how is this alert dispatched/communicated to police officers?
   a. What circumstances have clients been facing who have activated a Mobile Tracking System?
   b. How does the presence of a Mobile Tracking System impact your response to a gender-based violence call?
   c. How does the use of this device differ from responding to a gender-based violence call that does not involve a Mobile Tracking System?
      i. *Does MTS background information save officers time when responding to a GBV call?*

5. How do Mobile Tracking Systems impact your ability to respond to gender-based violence?
   a. How do Mobile Tracking Systems impact your investigations?
   b. How do Mobile Tracking Systems impact your ability to lay charges?
   c. How do Mobile Tracking Systems impact a victim's credibility?

6. To obtain a Mobile Tracking System, victims are required to comply with specific criteria outlined by Victim Services.
   a. Are you aware of this criteria? *[If no, outline the eligibility requirements]*
   b. Based on this criteria, are there circumstances you perceive that could lead a victim to refuse a Mobile Tracking System?
   c. Are there any revisions you might make to this criteria (either add or remove)?

7. Are there any instances of clients misusing Mobile Tracking Systems (e.g., pushing the button to get a quicker police response in a situation deemed a non-emergency)?
   a. If so, what transpired in response to the misuse of this device?

8. What value do you think Mobile Tracking Systems have for individuals experiencing gender-based violence?
   a. What value do these devices offer to the CJS (courts, probation, etc.)?

9. Is there anything else that you would like to add?

10. Is there anyone else that is involved with Mobile Tracking System who you would suggest I speak to?

Appendix E: Waterloo Region EyezOn Mobile Tracking System Brochure

Other Considerations:

The client must consent to share information with appropriate agencies and to be monitored for the sole purpose of her/ his safety.

Please be aware that MTS does not replace the security of a shelter or personal self- awareness and is only one part of the safety plan. MTS is a temporary device and will not guarantee safety.

Applications can be made through Victim Services of Waterloo Region by calling
519-585-2363

Mobile Tracking System (MTS) is a partnership between Victim Services of Waterloo Region, Waterloo Regional Police Service & Cambridge OPP

Mobile Tracking System (MTS)

This personal tracking device can offer a safety solution to high risk victims of violence while at home or in the community 24 hours a day, 7 days a week. The device has a panic button which when activated, sends an SOS signal to alert the police of the client's location.

Eligibility

- The client must be a resident of Waterloo Region.

- The client has made a complaint to police of physical violence or threats of violence.

- The client is identified as a high risk individual with safety concerns.

- The client is willing to complete the application process including a safety plan, stay in contact with Victim Services of Waterloo Region as needed and comply with instructions concerning the operation of MTS.

- The client is willing to and does work cooperatively with the criminal justice system and follow through on criminal charges and other protection measures as suggested.

Mobile Tracking System (MTS) is a partnership between Victim Services of Waterloo Region, Waterloo Regional Police Service & Cambridge OPP