PEER RESPONSE TO OPIOID OVERDOSES IN THE COMMUNITY: AN INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS

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TABLE OF CONTENTS

List of Figures

List of Acronyms

CPR	Cardiopulmonary resuscitation
DSM	Diagnostic and Statistical Manual of Mental Disorders
DULF	Drug User Liberation Front
IPA	Interpretative phenomenological analysis
IQR	Interquartile range
NAOMI	North American Opiate Medication Initiative
OAT	Opioid agonist therapy
PTSD	Post-traumatic stress disorder
PWUD	People who use drugs
REB	Research ethics board
SCS	Supervised consumption site

Abstract

Canada and many other countries are currently in the midst of a drug poisoning crisis, primarily driven by an increasingly toxic unregulated drug supply and the ongoing criminalization of people who use drugs (PWUD). Since 2016, over 44,000 PWUD have died from drug toxicity, representing 22 deaths each day in the first 9 months of 2023. Research to date has demonstrated that most drug overdoses occur in private residences (at home), and PWUD themselves are often burdened with the task of responding to these overdose events. To date, minimal research has been completed to understand the psychological trauma and burden of care associated with responding to drug overdoses in the community, outside of formal supports and services. In response to this, we sought to explore the experience of overdose response in the community through a qualitative study with PWUD using an interpretative phenomenological analysis (IPA) approach. Our goals were to explore the psychological trauma and stress associated with responding to overdoses; understand the overdose response experiences of PWUD and peers in the community or at home and their gaps in support; explore the necessary changes that are required for PWUD to be supported in their overdose response; and inform the development of policies, laws, and resources to support and encourage peers given their crucial involvement in the drug poisoning crisis. To situate and guide this research within this understanding of trauma, Bonnie Burstow's *radical trauma* theory and her *layers of trauma* framework were employed. A total of 20 questionnaires and semi-structured interviews were completed with research participants in downtown Ottawa, Canada. From this data collection, major findings included 1) the invisible labour that PWUD regularly participate in, 2) the importance of

citizenship amongst PWUD, 3) the trauma regularly experienced by research participants, 4) deficits and gaps in current services and supports for PWUD, and 5) the importance of evolution moving forward within the drug poisoning crisis. These findings help to expose the complex and intertwining forces (and resultant tension) which impact peer overdose response in the community and how this has reinforced the need for PWUD to insulate themselves from a constant barrage of violence and rejection. Further, future directions and recommendations from the research participants themselves contribute to understanding how to navigate the drug poisoning crisis moving forward.

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Chapter 1 – Overview and Introduction

"The expectation that we can be immersed in suffering and loss daily and not be touched by it is as unrealistic as expecting to be able to walk through water without getting wet."

Rachel Naomi Remen

The impetus for completing this dissertation arose from the community of people who use drugs (PWUD) whom I have had the honour of working alongside as a nurse. This community is resilient, caring, and incredibly powerful – they support and provide safety to one another while existing in a society that marginalizes and isolates them. Through my work in the shelters and a supervised consumption site (SCS), overdose response became a recurrent event. As the toxic unregulated drug supply has worsened, overdose response moved to the forefront of my mind each day. However, the reality was that I only saw a very small proportion of overdoses happening in the community. An overwhelming number of overdose responses occurred in private homes, on the street, in encampments, and at trap houses, with PWUD taking on the role of responders for their peers. Anecdotally, I was told of the stressors of being a responder, how difficult it was to see friends in crisis, and how challenging responding in the community was with limited resources, all compounded by a fear of criminalization as well as the ongoing stigma and marginalization experienced by PWUD.

Thus, for my thesis, I sought to understand the experiences of responding to an overdose in the community as a peer and spoke directly to PWUD about this. Chapter 1 provides an overview of the research problem, questions, and objectives, as well as a brief introduction to the research methodology and epistemological stance of critical theory. Chapter 2 reviews the extant literature on the topic of peer responses to

overdoses in the community, including the current landscape of related laws and policies. Chapter 3 details the theoretical framework underpinning this work – Bonnie Burstow's *radical trauma* theory[1] and related *layers of trauma* framework[2]. Chapter 4 explains the research methodology employed, and Chapter 5 reports the research results. Finally, Chapter 6 discusses the research results and Chapter 7 contains the conclusion of this dissertation.

Research Problem

Since 2016, the drug poisoning crisis has been associated with increased morbidity and mortality, with over 44,000 Canadians dying from an opioid-related cause.[3] Although policies and programs have attempted to quell this crisis through the implementation of harm reduction programs, such as SCS[4], safer supply projects[5,6], and naloxone distribution[7,8], PWUD continue to die at unprecedented rates from a poisoned drug supply.[9] In 2023, there were a total of 8,049 apparent opioid toxicity deaths – this is the equivalent of 22 deaths each day.[3] The vast majority (87%) of accidental apparent opioid toxicity deaths occurred in British Columbia, Ontario, and Alberta. Among accidental deaths, 82% involved the use of fentanyl, further underscoring the dangerous state of the toxic unregulated drug supply.[3]

PWUD, peers, and other harm reduction experts have repeatedly demonstrated that there are clear pathways forward within this crisis through strategies such as the decriminalization of drugs[10,11] and providing widespread access to a regulated/safer supply.[12–14] However, until these approaches are implemented, the prevention of overdoses is a key strategy for addressing this situation. To appropriately target

supports and services, it is crucial to consider who is responding to these overdoses and where they happen.

Indeed, a considerable number of overdoses undoubtedly occur in SCS, with staffing models including nurses who act as the Responsible Person in Charge.[15,16] Canada's first SCS in Vancouver (Insite) has facilitated over 3,600,000 visits since its inception in 2003, and in 2019, provided 1,314 overdose interventions.[17] Locally, the only 24/7 SCS in Canada reported nearly 80,000 visits from PWUD in 2022, as well as 1,074 overdose events requiring intervention with naloxone that same year.[18] Importantly, there has not been an opioid or other drug overdose death documented at a SCS to date. While these statistics begin to explain where many overdoses are occurring and who is successfully reversing them, they do not explain the climbing death rates. This suggests that overdose-related deaths are occurring in the community, away from harm reduction and healthcare services.

At both global and local levels, it is recognized that most overdoses continue to occur at home and in communities.[19] Further, PWUD and peers (non-healthcare providers working outside of formal services and programs – often are people with lived or living experience) have been found to be the group most likely to witness overdoses in the community.[19] However, for PWUD and peers, there currently exist many barriers to overdose response, such as fear of police involvement should emergency services be activated during an overdose.[20–22] This fear arises from many sources, such as the recurring pattern of negative interaction between law enforcement and PWUD.[22] This is tied directly to the persistent criminalization of substance use and, subsequently, PWUD themselves. Further, witnessing and responding to an overdose has the potential to be

a psychologically distressing and traumatizing event given the rapid medical decline that may occur during this event. The close relationships and bonds among PWUD also mean there can be substantial emotional, psychological, and social stress associated with this emergency response as well.

Many questions remain regarding how to support PWUD and peers, and, given the central role of peers in responding to this crisis, they are a crucial population with whom to connect. Through research focused on exploring overdose response from the perspectives of PWUD and peers, novel and innovative understandings of the drug poisoning crisis may be unveiled. These experiences are vital to inform policy and public health initiatives with PWUD, as the drug poisoning crisis continues to worsen in Canada with no end in sight. Indeed, harm reduction experts recently demanded attention to this topic, commenting on the "remarkable lack of public discourse on the necessary resources and supports needed, as well as traumas experienced by peers acting as first responders in overdose events."[23(p.255)]

Research Objectives

1. To explore the psychological trauma and stress associated with responding to overdoses.
2. To understand the overdose response experiences of PWUD and peers in the community or at home and their gaps in support.
3. To explore the necessary changes that are required for PWUD to be supported in their overdose response.

4. To inform the development of policies, laws, and resources to support and encourage peers to maximize their crucial involvement in the drug poisoning crisis.

Research Questions

1. What are the emotional and psychological effects of witnessing or assisting a peer/friend with an overdose?
2. What services might help mitigate this harm and support peers?

Epistemological Stance

This research is addressed through the paradigm of critical theory as described by Guba and Lincoln.[24] Through this paradigm, there is value placed in advocacy and activism, as well as a desire to correct deeply rooted injustices through the examination of hierarchies within a social justice lens.[24,25] Critical theory lends itself to actively questioning and challenging the deep roots of power and privilege that facilitate discrimination towards peers and PWUD.[24] Active engagement with historical revisions of the status quo which have been "shaped by social, political, cultural, gender and economic factors over time"[25 (p.461)] and saturate the lives of PWUD is essential. Further, engaging with the realities of structural violence and the resultant marginalization of PWUD allows for interrogation, critiquing, and dismantling of societal structures that marginalize and traumatize peers and PWUD within the context of community drug overdose response.[24,26] Critical theory may also help to empower and liberate this marginalized population of PWUD by forming partnerships in research and allowing their voices to be heard.

The underlying assumptions of critical theory align well with current standards of nursing care and research. National nursing bodies stress the importance of ethical practice which focuses on social justice, human rights, and ethical decision-making with a particular focus on marginalized populations.[27] Further, nursing practice often focuses on the application of strengths-based care reflected in an appreciation of the client as the expert in their own lived experience and realities. Mill and colleagues[28] outlined several ways that critical theory functions as a foundational basis for nursing research, including its focus on theory and practice, the complex views of the client environment, and the "emphasis on action and change [through the] participation of the 'researched' in the research process."[28 (p.121)]

Within critical theory, epistemology and ontology are interconnected. The investigator and investigated each bring a multitude of different experiences, values, and beliefs to the research process. This results in a process of inquiry which is dynamic and evolves over time to examine and question the current state of accepted knowledge. Through these interactions, research findings are understood to be value-dependent, in that knowledge is developed and emerges from this transactional process. Thus, truth as it is understood within critical theory is subjective and highly dependent on these interactions. This contrasts with more traditional forms of scientific inquiry arising from post-positivist paradigms which conduct research through deductive means of hypothesis testing and rely on pre-defined conditions such as researcher objectivity and the rejection of bias due to concerns of influencing results.[24,29]

Indeed, current understandings of reality through the paradigm of critical theory can then be better understood through the concept of pluralism. As previously

mentioned, influential societal structures and presumed absolute truths are influenced by a multitude of socio-political factors. These factors have arisen over time and result in the construction of a worldview that does not allow for an understanding of truth beyond the perspectives of the dominant group. For PWUD, this has resulted in their categorization as a deviant group that can be demarcated through pathologizing, medical diagnosis and harmful legal frameworks. This form of othering continues to drive PWUD to the margins while reinforcing elevated social positions for others. Contrastingly, pluralism allows for the consideration of multiple perspectives and the existence of many truths. This may allow for the confrontation of harmful misinformation, acceptance of differences, and engagement with the creation of new, transformative insights.[24,29]

Overall, limited information is available regarding the experience of responding to a drug overdose in the community despite most drug toxicity deaths occurring there. To better understand this topic, we spoke with PWUD and peers about their experiences through the completion of in-depth interviews and questionnaires as outlined with an IPA methodology. By examining community overdose response through a critical theory lens, we may better understand this experience within the context of the criminalization and marginalization faced by PWUD each day and begin to develop support strategies that are effective and accepted.

Chapter 2 – Literature Review

"History is a nightmare from which I am trying to awake."

James Joyce

This chapter provides an overview of the literature regarding peer overdose response in the community. First, a summary of the history of drug use in Canada is outlined. Second, the current drug poisoning crisis and resultant overdose landscape in Canada is explored. This includes a review of the toxic unregulated drug supply, a summary of the current evidence available which explores the effects of witnessing a drug overdose, and the current state of peer overdose training. Third, commonly cited barriers and facilitators to drug overdose response are presented, including emergency services and police involvement, the *Good Samaritan Drug Overdose Act*, and the state of overdose monitoring assistance. Fourth, the realities of overdose response in the community and its known impacts on PWUD and peers are explored. Finally, a discussion regarding crucial ethical considerations which must be considered when working with marginalized groups such as PWUD is provided.

History of Drug Use

Recreational drug use has long been criminalized and stigmatized in Canada.[30,31] Understanding the historical roots of recreational and unregulated drug use is essential to provide context to the current war on drugs and, subsequently, the experience of responding to an overdose when a peer has consumed unregulated substances in the community. In the late 18th century, colonizers from abroad brought alcohol to many Indigenous settlements in Canada. Before this, alcohol was not commonly found in most Indigenous communities. Alcohol such as whiskey was frequently used by

colonizers to trade for animal furs and other important trading items.[32] Despite colonizers being the central reason why alcohol was introduced to Indigenous communities, the *Indian Act* of 1876 subsequently prohibited Indigenous people from possessing, consuming, or selling alcohol. Any Indigenous individuals caught doing this could face criminal sanctions.[33] Over time, stereotypes such as the firewater myth – a false belief that Indigenous people are more prone to developing alcohol use disorders and are more likely to present as aggressive and violent when consuming alcohol – perpetuated the marginalization of and racism towards Indigenous communities.[34]

Prior to the 20th century, psychoactive drugs were largely unregulated within the United States and Canada.[35] At this time, opioids were commonly prescribed and were also often available for over-the-counter use. For example, heroin was used as a cough suppressant, while both opium and cocaine were commonly used to manage pain.[36] In the early 1900s, there was an influx of Chinese immigrants to Canada. Anti-Chinese racism abounded, with Canadian Anglo-Saxon groups associating the import and use of opium with Chinese immigrants. Similar to the firewater myth associated with Indigenous people, false widespread beliefs that immigrants were less able to control their desires resulted in increased opium use and an overall predisposition for immoral behaviour.[30,36] After a tumultuous period of aggressive protesting and pressure being placed on the Government of Canada to act, the *Opium Act* was developed and subsequently implemented in 1908, resulting in criminal penalties for anyone found to be manufacturing, importing, or selling opium.[31] In the years following, the prohibition of other opioids, cocaine, and eventually cannabis was added to the policy which was eventually coined the *Opium and Narcotic Drug Act* in 1929.[30,37]

By considering these power relations, wherein patriarchal, white supremacy in society was honoured by the Canadian government, it is better understood why drug use among immigrants and minorities was turned into a narrative of individuals lacking personal fortitude, resulting in victim blaming.[38] Indeed, the war on drugs to date has classified certain substances as acceptable – such as alcohol, tobacco, and opioid agonist therapy (OAT), such as methadone – while others were discerned to be associated with purposefully deviant behaviour, such as heroin or cocaine.[38] Bourgois explores this strange dichotomy placed on psychoactive substances which are deemed regulated/licit (appropriate) or unregulated/illicit (inappropriate):

> The state and medical authorities have created distinctions between heroin and methadone that revolve primarily around moral categories concerned with controlling pleasure and productivity: legal versus illegal; medicine versus drug. The contrast between methadone and heroin illustrates how the medical and criminal justice systems discipline the uses of pleasure, declaring some psychoactive drugs to be legal medicine and others to be illegal poisons.[39] (p.167)

Thus, the labelling of PWUD as deviant criminals creates cumulative experiences of marginalization and rejection. This marginalization often results in the rejected individuals, such as PWUD, creating countercultures among themselves out of necessity, resulting in further ostracism and non-acceptance from society at large. This cycle of rejection and discrimination creates limitless intersections of marginalization.[38] These complex and disempowering structures continue to impact PWUD, vastly impacting the experience of using drugs with peers and overdose response in the community.

Drug Poisoning Crisis

As the drug poisoning crisis in Canada has worsened, PWUD continue to die at unprecedented rates. Given concerns surrounding this crisis, national surveillance of

drug poisoning deaths began in 2016.[3] Information regarding drug toxicity deaths is provided to the Public Health Agency of Canada by provinces and territories and includes data that the Chief Coroners and Chief Medical Examiners have collected. Most recently, the Public Health Agency of Canada reported that between January 2016 and December 2023, 44,592 people in Canada died of apparent opioid toxicity. 8,049 people died in 2023 alone, which is the equivalent of 22 deaths each day. To put this into perspective, this is nearly triple the number of deaths that occurred in the first year of surveillance in 2016 (2,831 deaths). Further, there was the equivalent of 17 opioid-related poisoning hospitalizations each day in Canada in 2023. The vast majority of accidental drug poisoning deaths reported have occurred in British Columbia, Alberta, and Ontario. Unregulated fentanyl continues to be a central driver of many deaths, with 82% of accidental apparent opioid toxicity deaths involving fentanyl in 2023. Polysubstance use (often involving a combination of unregulated opioids and stimulants) has become increasingly common amongst PWUD. In 2023, 61% of opioid toxicity deaths also involved a stimulant drug.[3]

While the harms surrounding the drug poisoning crisis are undeniably extensive, it is important to note some stated limitations and considerations regarding this national data. In particular, the number of drug toxicity deaths being reported is likely an underestimation, as some provinces do not regularly submit opioid toxicity deaths (e.g., Manitoba has been excluded from the data received for 2023). Further, national data tracking does not include deaths which have occurred as a result of long-term medical complications of substance use (e.g., endocarditis or sepsis from injecting drugs) or

deaths that are not an overdose but occur as a direct result of participating in an unregulated drug market (e.g., homicide).[3]

In Ontario specifically, between 2019-2021, 8,767 individuals died from accidental substance toxicity.[40] Among these deaths, 85.2% involved opioids, 60.2% involved stimulants, 13.4% involved alcohol, and 8.6% involved benzodiazepines. The median age at death for this group was 40 years old, which is half of the national average. Of note, unregulated drug use is not entirely uncommon in Canada – results from the most recent Canadian Drug and Alcohol Survey[41] show that nearly 3% (1.1 million) Canadians reported using unregulated drugs in the past year. These results also show that men and women have a similar prevalence of past-year use of unregulated drugs; however, for men, this prevalence has remained relatively stable since the previous survey (from 5% or 719,000 in 2017 to 4% or 616,000 in 2019), there has been an increase in the number of women reporting the use of unregulated drugs (from 2% or 268,000 in 2017 to 3% or 465,000 in 2019).[41]

Drug checking services provide some detailed insights into the worsening state of the toxic unregulated drug supply. The Toronto Drug Checking Service allows PWUD to have their unregulated drugs tested for free and is one of the few community-based unregulated drug checking services available in Ontario at this time.[42] Either a sample of the drug or the used drug equipment can be provided to the service for testing at an off-site lab. Service users must also report the expected drug (e.g., what they believe they were purchasing/receiving). Results are typically available in 1-2 days and are provided back to the service user. As well, results from samples checked at the service are shared publicly online every other week. Overall, results demonstrate that the vast

majority of unregulated drugs tested are consistently tainted with substances other than what the recipient intended to purchase and use. For example, when someone purchases unregulated fentanyl, the Toronto Drug Checking Service has often found contaminants within the drug. These contaminants commonly include fentanyl analogues, benzodiazepines, and other sedatives (e.g., xylazine, which veterinarians typically use to sedate animals).[42]

These results further emphasize why the unregulated drug supply is commonly referred to as “toxic” – PWUD are often not aware of what is truly within the unregulated drugs they are consuming. Further, Toronto Drug Checking Service results demonstrate that the unregulated drug market fluctuates rapidly, with new and different substances commonly being reported each time new data is released.[42] Ultimately, these results help us to understand that most PWUD purchasing unregulated substances have no consistent way of predicting what may be in the drugs they are consuming, increasing their risk of harm (including drug overdose) and death.

Current Overdose Landscape

In 2020, the United Nations estimated that nearly 11 million people in North America were using opioids (including opiates and prescription opioids).[43] For the first time in 40 years, life expectancy at birth for Canadians did not increase in 2017[44], and this halt was tied to the rapidly expanding number of opioid-related deaths in Canada.[3] As such, harm reduction efforts have been initiated to help combat these deaths. SCS have been opened in several Canadian provinces and territories, with many applications still pending approval from the federal government.[4] SCS offer safe spaces for PWUD to use drugs where they can be closely monitored by healthcare providers, connect with

peers (people with lived and living experience), and pick up sterile drug use equipment. Further, many SCS in Canada offer onsite access to wrap-around supports such as housing workers, connections to substance use services, and primary care. A recent study in Toronto, Canada demonstrated that the implementation of a SCS was associated with a decrease in overdose mortality in surrounding neighbourhoods.[45] Safer supply programs have been approved and opened as pilot projects in a very limited number of jurisdictions.[5,6] Safer supply programs typically offer pharmaceutical-grade prescription opioids and stimulants to PWUD as an alternative to the contaminated unregulated drug supply.[46] As a final example, take-home naloxone initiatives have seen great success, with over 590,000 naloxone kits having been distributed from over 8,700 sites Canada-wide according to a 2019 environmental scan.[8] Naloxone is an opioid-receptor antagonist which is commonly used to reverse opioid overdoses.

As mentioned previously, at a local level, the largest SCS in Ottawa, Canada reported nearly 80,000 visits from PWUD in 2022, resulting in over 1,000 overdose incidents with no fatalities to date.[18] While this demonstrates the utility of harm reduction services and the impact they can have on PWUD in the community, it further reinforces that overdose deaths are happening outside of these spaces. Another successful harm reduction intervention is the Ottawa safer supply program, which provides services to nearly 500 PWUD in the city. Recently, this program described that 70% of its participants reported a decrease in their fentanyl use as a result of the program.[47] Of importance to this thesis, 81% of participants reported experiencing no overdose events at their most recent check-in with their clinical team.[47] Once again, this reinforces the

success of current harm reduction efforts, but does not explain the gaps in care which have resulted in the death of over 44,000 Canadians since 2016.

It is important to note that these efforts have been due to the tireless efforts of PWUD and individuals working within harm reduction. In fact, actions taken by provincial and federal governments have often hindered harm reduction efforts, with harm reduction services remaining contentious and threatened at the legislative level.[48] For example, Ottawa Public Health's SCS lost their government funding despite having over 15,000 visits in 1.5 years.[49] Further, the ability of communities to rapidly open Temporary Overdose Prevention Sites has been revoked and replaced with complex and lengthy SCS applications.[50] Finally, on August 31, 2020, the Alberta government closed the busiest SCS in Canada.[51,52] This closure date tragically coincides with International Overdose Awareness Day during one of the deadliest spikes recorded in Canada's drug poisoning crisis.[53,54]

The COVID-19 pandemic and associated restrictions prompted a reduction to, and closure of, many substance use and harm reduction services for PWUD.[55–58] This included emergency shelters, sterile site distribution, community outreach services, and harm reduction programs (e.g., SCS). When these services were able to function, they often reported staffing shortages, capacity issues, medical supply chain issues, and reduced hours of operation.[57,58] Further compounding these issues, the Canadian Community Epidemiology Network[57] released an alert a few months into the pandemic which found that there were noted changes within the unregulated drug supply, likely due to disruptions within the international unregulated drug trade. These changes included increased contamination and adulteration of the unregulated drug supply.

Many regions reported the price of unregulated drugs doubling or tripling.[57] In Ontario, researchers noted significant increases in the overall rate of opioid toxicities following the state of emergency put into place due to COVID-19 in March 2020. Overall, between January 2014 and December 2021, the rate of opioid toxicities in Ontario increased from 2.6 to 10.5 per 100,000. [59] People experiencing homelessness were particularly impacted, as they accounted for 1 in 6 opioid-related deaths during the COVID-19 pandemic. [56]

Public knowledge surrounding the experience of responding to an overdose in the community is extremely limited. This lack of knowledge is concerning for several reasons, one of which has been the proliferation of misinformation and myths about PWUD, substance use, and drug overdoses. Notably, police organizations – particularly in the United States – have regularly taken to social media to post body camera footage of a police officer coming into contact with what appears to be an unregulated substance and apparently experiencing a drug overdose.[60] Frequently, these videos show the police officer experiencing a so-called overdose administering naloxone to themselves, breathing, and often awake and speaking to their colleagues.[60] Substance use experts have come to agree that these police officers are likely not experiencing an overdose given their presentation (e.g., they are breathing, talking, and/or conscious) in addition to the inability of fentanyl powder to be absorbed through the skin. Instead, they are likely experiencing a panic attack or stress reaction at the thought of being exposed to unregulated substances.[60,61] This misinformation feeds into the stigma faced by PWUD and provides an inaccurate depiction of their lived experiences.

Effects of Witnessing an Overdose in the Community

There is limited research to date which delves into the psychological impacts and effects of witnessing and responding to an overdose in the community, outside of formal support, from the perspective of PWUD. However, there are a small number of research studies which are essential to explore to understand the state of the evidence surrounding this topic. Researchers in Cabell County, West Virginia, completed a qualitative research study in the summer of 2018 to better understand the experience of drug overdose in general from the perspective of people who inject drugs.[62] Researchers selected this setting to conduct their study based on the disproportionate impact of drug overdoses on rural communities in the United States, and due to the overall lack of research within rural communities on the topic of drug overdose. To participate in this study, people must be 18 years of age or older and have injected drugs in the last 30 days. They recruited 21 research participants from local harm reduction programs and nearby areas where PWUD are known to frequent. Participants were compensated $40 cash for their time and expertise. Data collection consisted of semi-structured interviews and the collection of basic socio-demographic information. Interviews were audio-recorded to allow for accurate data analysis. The researchers undertook data analysis using an iterative, constant comparative approach using a code book created from the first ten transcripts.

Of the 21 research participants, 14 were male and 7 were female. All but one participant was white. Participants reported having used injection drugs for anywhere from 7 months to 31 years. Within the interviews, participants spoke extensively about their own personal overdose experiences and described overdose events as extremely

common or routine occurrences in their lives. They reported most commonly caring for family members and friends during a drug overdose and viewed naloxone as an appropriate alternative for calling emergency services (911) for help. Participants disclosed concerns surrounding police involvement when emergency services were activated and described an overall fear of police which persisted within their community. Although most participants described commonly carrying naloxone, some described difficulties with accessing this lifesaving medication (e.g., one participant reported it was only available when overdose training was offered one day each week from a specific program in their area). Similar to findings in Canada, participants in this study described a contaminated unregulated drug supply which predominantly consisted of fentanyl. With regards to overdose response experiences, participants described feelings of panic and subsequent psychological distress – these were emotional experiences for individuals to recount with the research team.[62]

Continuing within the theme of exploring trauma among PWUD who have witnessed a drug overdose, other researchers in the United States sought to better understand the experience of witnessing and responding to drug overdoses.[63] They conducted interviews with 17 people across six states and Washington, DC. Participants were recruited from a larger parent study, the COVID Harm Reduction and Treatment Program Survey. Data collection consisted of semi-structured, in-depth phone interviews which took approximately one hour to complete. Interview guides were created and in part guided by a post-traumatic stress disorder (PTSD) checklist. Research participants were given $50 gift cards for participating in the interview portion of this study. Interviews were audio-recorded and transcribed with permission from

participants. Data analysis involved thematic content analysis, wherein themes were created from concepts which arose multiple times within and across interview transcripts.[63]

Amongst the research participants, seven identified as men and 10 identified as women. Participants had a mean age of 45, and the majority (59%) of participants were white. During interviews, participants provided detailed accounts of overdose events which stood out to them. They reported that the experience of simply witnessing an overdose event was extremely different than actually responding to an overdose event. They also explored many factors which they felt contributed to the degree of trauma they experienced with an overdose event. For example, participants described how witnessing or responding to an overdose was increasingly traumatic when the person overdosing on drugs is a close family member or friend. Further, they spoke about the effects of trauma following the overdose experience, which included physical (e.g., difficulty sleeping, nightmares), emotional (e.g., feelings of guilt or regret), cognitive (e.g., “blocking out” memories, rumination, flashbacks), and existential (e.g., normalizing having witnessed an overdose) impacts. Amongst this community, resources which participants felt aided in coping with this potentially traumatizing event included religiosity, feelings of heroism and self-efficacy, and providing or accessing social support after the overdose event. Ultimately, for some participants, experiencing an overdose in the community resulted in behavioural changes. These ranged from changing one’s social environment to avoid witnessing another overdose, to increased drug or alcohol use in response to experiencing this trauma, to attempting to reduce or minimize their own drug overdose risk.[63]

A study in rural Appalachia called the Drug Injection Surveillance and Care Enhancement for Rural Northern New England was undertaken by a research team seeking to further characterize the risk environment and epidemiology of overdose events from the perspective of PWUD.[64] The study took place from May 2018 to October 2019 and occurred across 11 study sites which involved a mix of street outreach and harm reduction services. Data collection consisted of a 90-minute survey to collect information on participant demographics, drug and other risk factors, healthcare access, mental health, infectious disease history, and social networks. Additionally, 45–90-minute in-depth, semi-structured interviews were completed to further characterize the experience of seeing someone else overdose. PWUD were eligible to participate in the research study if they were 18 years of age or older, spent most of the last 30 days in the study area, used opioids to get high or injected any drug in the last 30 days, and were able to provide informed consent. Participants were paid $40 for completing the survey and infectious disease testing, $10 for referring others to complete the survey, and $25 for the interview.[64]

Ultimately, 578 PWUD completed the survey component, and 16 people also completed an interview. Among all participants, heroin was the most common drug of choice, and just less than half of participants reported injecting drugs on a daily basis. The majority of participants had received OAT for their opioid use in the past, with buprenorphine being the most common (59%). With regard to trauma, many participants either reported symptoms of serious psychological distress (62.2%) or were positively screened for PTSD (45.5%). Just over half (51.2%) of participants reported having personally experienced an overdose, and the majority (85.8%) of participants knew

someone who had died of an overdose in the past 6 months. The research team identified potential associations between witnessing an overdose and PTSD symptoms, having personally survived an overdose, being trained to respond to an overdose, and having received naloxone in the past. Within interviews, participants clearly described risk periods when they felt overdose was more common. These risk periods included when PWUD were waiting for admission to drug treatment, returning to the community following incarceration, or following abstinence-based treatment programs. Participants spoke about naloxone access being variable and difficult to access at times. When participants did witness an overdose, they reported using different techniques, which included performing a sternal rub, cardiopulmonary resuscitation (CPR), administering naloxone, seeking help from bystanders, and calling for emergency services. Importantly, participants also described some reluctance to call 911 given concerns surrounding consequences with law enforcement despite the existence of Good Samaritan laws.[64]

Finally, in 2019, a study team in Toronto, Canada, sought to better understand the relationship between drug overdose events and grief responses among people who inject drugs.[65] Tablet-based surveys were administered to people who inject drugs by peer researchers. Individuals were eligible for the study if they were 16 years of age or older, had injected drugs in the past 3 months, and were fluent in English. Completing the survey took approximately 25 minutes. Participants were recruited at four harm reduction programs in Toronto. Topics within the survey included overdose experiences, coping strategies, impacts of overdoses, naloxone use, infectious disease risk practices, and needs surrounding grief and loss. Participants received $20 for participating in the

research study. In total, 244 participants completed the survey. The median age of participants was 44 years, 22.5 % identified as women, 46.3 % as men, 1.3 % as non-binary or other, and 29.9 % had missing gender data (as a result of administrative error). The most commonly injected drug was fentanyl (46.7%), followed by heroin (12.3%) and cocaine (11.9%). Two-thirds of participants reported experiencing homelessness, and one-quarter of participants stated they had been incarcerated at some point over the last 6 months. Most participants (70.9%) indicated that they had witnessed two or more overdoses. Statistical analysis revealed that experiencing a severe grief reaction was associated with having had two or more personal overdoses (when compared to people with no personal overdoses) and having witnessed overdoses (when compared to people who have not witnessed an overdose).[65]

Although there is limited research on the topic of the psychological impact of witnessing or responding to an overdose in the community, these four studies provide important insights into this experience from the perspective of PWUD. Interestingly, all three of the studies which had a qualitative component occurred in the United States, and two of these occurred in rural communities. Overall, research participants spoke about overdoses occurring frequently and were able to define risk factors associated with an increased risk of overdose (e.g., returning to the community from hospital or jail/prison). Participants spoke about different techniques they used for reversing an overdose, such as administering naloxone and performing CPR, and expressed concerns over calling for help (911) due to fear of law enforcement. There were numerous impacts to overdose responders, including grief reactions, panic, and psychological distress.

Peer Overdose Training and Work

Most research on the topic of responding to drug overdoses to date has focused on the experience of peers who work in harm reduction services, such as SCSs or needle exchange programs. Other research topics have included speaking with people who have responded to a drug overdose following the completion of overdose response training. While these experiences are extremely important to understand and explore, we can surmise that they may be very different from overdose responses in the community without recent training or support. When working in harm reduction facilities, individuals have access to overdose response equipment, such as pre-drawn naloxone, oxygen machines, and other medical supplies as needed (e.g., defibrillators, pulse oximeters, etc.). These facilities generally have several staff working at one time to support one another, often including a mix of nurses and peers. Protocols and policies for overdose response are pre-established to ensure cohesiveness, teamwork, and mutual understanding between members of the team. Nevertheless, given the paucity of literature on the topic of overdose response in the community, and despite the varying factors that exist between responding to opioid overdoses in these different settings, reviewing extant research on this topic is warranted.

The Peer2Peer team at Towards the Heart – a project in British Columbia focusing on harm reduction services – released initial policies, evaluations, and research regarding the need for increased access to support services for peers.[66] They found that peers faced many unique stressors in the workplace in addition to the chaos of overdose response and repeated exposures to loss and grief. These included financial insecurity, issues with unstable housing, and struggling with a lack of respect

and recognition.[67] They developed a model called ROSE (Recognition of work; Organizational support; Skill development; for Everyone) which mapped out the supports harm reduction services should have in place to support employed peers.[68] Other research teams have considered the experience of peers working in harm reduction facilities and similarly found that peers expressed concern surrounding certain aspects of their work, such as psychological issues (e.g., burnout, challenging boundaries), invisible and unpaid labour, and insufficient financial compensation.[69,70] An ethnographic study in British Columbia found that these challenges can be amplified for women and gender-diverse PWUD, as they often assume responsibility for others and take on caregiver roles, often to their detriment.[71]

A recent study in Toronto, Canada, with 11 harm reduction workers explored their personal and professional experiences of overdose and uncovered similar results. Participants disclosed experiencing many physical, emotional, and social effects related to loss and grief within the context of drug overdoses. Similar to the Peer2Peer study, they also raised concerns surrounding inadequate financial compensation and an overall lack of resources and support to address trauma. The grief and concerns raised by research participants were amplified by a lack of political response related to scaling supports and services amidst the growing drug poisoning crisis in Canada.[72]

However, the experience of peers working alongside PWUD is not solely negative; many also report positive factors which reinforce their willingness to participate in overdose response and harm reduction services, such as feelings of engagement and belonging within their community, a greater sense of purpose in their job, as well as pride in their ability to inspire others.[70,73] A study considering the

emotional reactions of PWUD trained in overdose response following intervention in an overdose event found that participants had diverse reactions to the overdose event, ranging from pride and a perceived sense of duty to ambivalence about responding to overdoses in the future given the challenging nature of the situation they had encountered.[74]

Notwithstanding the success and importance of structured SCS', the World Health Organization[19] has asserted that most opioid overdoses occur at home and in the community, away from formal harm reduction or healthcare services. Most overdoses are witnessed events, with most bystanders including individuals who are at risk of opioid overdose themselves, peers (non-healthcare providers), or friends and family members.[19] Similar trends are seen in Ontario, wherein over 75% of accidental opioid-related deaths occur in private residences.[55] This has been echoed in many other research studies, with peers and PWUD frequently bearing witness to overdoses.[75,76] They are occurring with people who both carry (and have administered) naloxone as well as those without access to this opioid antidote. For example, a 2005 study[77] in New York found that nearly 70% of the PWUD they spoke to (n=797/1184) had witnessed a drug overdose.

Thus, there has been a renewed focus on training peers and PWUD to respond to these overdoses, with findings suggesting that they are very capable of reversing overdoses.[78] A meta-analysis[79] found that non-medical bystanders in the community can respond to an overdose with the appropriate training. This includes the provision of correct and appropriate resources to PWUD, including naloxone, emergency phone numbers, as well as first aid and resuscitation training.[80] Further, peers and PWUD may

be preferred when responding to an overdose due to their ability to build relationships among the community of PWUD, and their shared lived experience fostering feelings of safety among persons experiencing an overdose.[81] The same sense of safety is fostered among persons witnessing the overdose.[81]

Barriers to Calling for Help

Emergency Services and Police Involvement

A commonly cited step in naloxone training in the community is to call for emergency services (911) when responding to an overdose.[19,82,83] However, research has shown that PWUD may be hesitant to call for help, with a study in Baltimore revealing that research participants only called for an ambulance in 23% of overdoses.[77,84] Activation of emergency services for an overdose often results in police deployment as well as ambulance services. This is well-known among the community of PWUD and has created fear and concern when deciding whether or not to call for help.[85] In another study, over half of participants cited fear of police as the reason for not calling or delayed calling emergency services.[77] Calling for emergency services was often regarded as a “last resort” for peers in the community, reporting mistrust and fear of police and the legal system overall.[86,87]

A study team in British Columbia, Canada completed telephone interviews with peers who were likely to witness and respond to overdoses. Research participants described how peers are often the first to respond to overdoses, ahead of other emergency response teams such as paramedics or police. Many participants felt that calling for emergency services was often not required, and if police or paramedics were involved, this often resulted in uncomfortable encounters resulting from perceived bias

or stereotyping of PWUD. Peers felt as though they were highly competent in their overdose response techniques, and valued the shared experience and empathy that often arose from having a personal history of drug overdose events themselves.[88]

Fears surrounding police involvement are multi-faceted, ranging from concerns about being arrested for involvement in unregulated drug use to punishment and blame if the peer dies as a result of the overdose, creating an environment of fear that no training can mitigate.[84,85,89–92] Anecdotally, these fears are validated, as there have been reports of PWUD being arrested and subsequently charged following overdose deaths.[93,94] Other barriers to calling for help include a historical sense of limited safety when interacting with police, concern of arrest due to outstanding warrants, and fear of losing their children or their housing.[22,86,87,95] There has been some research with police themselves exploring their attitudes towards PWUD and overdose response. One study reported police questioning physician prescriptions when they had concerns about how PWUD were using their medication. Further, “officers felt there was little they could do to counsel drug users about their drug use; instead, arrest was viewed as the best tool to help them”.[96 (p.679)] Another study found that despite police feeling competent in administering naloxone to PWUD, 83% of participants believed that naloxone “provided an excuse” for PWUD to continue to use drugs, and 43% of participants believed there should be a limit on how often people can receive naloxone.[97] The outcome of these compounding concerns is that many PWUD manage overdoses without support. Ultimately, due to the continued criminalization of drug use, public health and other harm reduction initiatives will have a lessened impact than if drug use was

decriminalized.[98] Nonetheless, noted perceptions of the outcomes of calling emergency services appear to impede access to care for overdoses, rather than support it.

The Good Samaritan Drug Overdose Act

To encourage PWUD and peers to call emergency services, the Canadian *Controlled Drugs and Substances Act* (also referred to as the *Act* for the sake of brevity) was amended in 2017 with the *Good Samaritan Drug Overdose Act* (see Appendix A).[99] The *Good Samaritan Drug Overdose Act* has been established in many jurisdictions, such as Canada and the United States. Within Ontario, the *Act* states that it protects PWUD from charges surrounding the possession of a controlled substance if they are seeking help in an overdose situation.[99] Although the *Act* was an important first step in supporting PWUD, the reality of the language laid out in the *Act* leaves much room for discretion by law enforcement officers. First, the *Act* does not protect those who have any outstanding warrants, which again reinforces the criminalization of drug use and PWUD. Second, the *Act* states that it does not provide legal protection in "all other crimes not outlined within the Act", leaving room for considerable decision-making power on the part of law enforcement officials. Third – and possibly most importantly – the *Act* does not protect anyone who is producing or trafficking unregulated substances. This ignores cultural norms, as many PWUD are forced to sell and consume unregulated drugs to survive due to the lack of standard pharmaceutical-grade medication being offered to all PWUD.[100] Overall, the ambiguity found within the *Good Samaritan Drug Overdose Act* creates an uncertain landscape for PWUD, who are left to navigate a crisis situation when responding to life-threatening overdoses among their peers and friends.

In Ontario, focus groups with PWUD to discuss the *Good Samaritan Drug Overdose Act* help to reveal the understanding of this law amongst the community.[101] While all participants were aware of the *Act*, most research participants did not have a detailed knowledge of the *Act* or how it was meant to be applied to different scenarios. This often led to confusion and inaccurate myths surrounding the application of the *Act* during overdose response efforts. Several participants disclosed being provided with different definitions of the *Act* by different first responders, including both paramedics and police. Further, participants reported having high levels of mistrust of police and gave examples of times when police ignored the *Act* during overdoses in the community. Similar findings arose from a survey with nearly 500 PWUD in British Columbia – just over 50% of respondents knew about the *Act*.[102]

Interviews with PWUD in British Columbia, Canada revealed that participants felt as though the *Act* had severe limitations, resulting in them not feeling safe or protected during overdose response efforts in the community.[103] Participants spoke about instances of having their drugs and personal belongings confiscated by police officers during overdose events, as well as police being unable to tell the difference between possession of drugs for personal use and trafficking. This is important, as drug trafficking is not protected under the *Act*. Participants felt as though the *Act* was particularly problematic when applied to PWUD with intersecting identities. For example, a few participants spoke about people involved in survival sex work not calling 911 due to warrants unrelated to drug use or wishing to avoid police interaction. Finally, participants felt as though the *Act* was used in different ways by different officers. This finding was echoed through research interviews conducted with police officers in British

Columbia, Canada.[104] Officers spoke about using their discretion when making decisions about implementing the *Act* during overdose response events, and many of them interpreted it and implemented it differently. Moreover, when police officers were asked to describe the *Act* during the research interviews, many were unable to correctly define it.[104]

Overdose Monitoring Assistance

Given these complex barriers to overdose response, several technological supports have been created to monitor PWUD when they are using drugs in the community. The National Overdose Response Service[105] and the Ontario Overdose Prevention Line[106] are peer-run projects which connect PWUD with a peer over the phone to assist with overdose monitoring. The peer and individual calling for support develop a personalized plan together, such as if/when the peer should call for help if the PWUD stops responding and who they should call (e.g., a neighbour, friend, emergency services). Similarly, a smartphone application called The Brave App[107] was developed to connect PWUD with peers anonymously when using drugs alone. To better understand the use of these virtual overdose monitoring services, semi-structured interviews were completed with people familiar with the Brave App and the National Overdose Response Service.[108] This study found that virtual overdose monitoring services such as these were used for situations beyond overdose response, including the provision of mental health support, providing support for drug use complications, acquiring advice on self-care and harm reduction, and engaging with peer support.[108]

The act of monitoring – sometimes called “spotting” – has been noted to be very helpful for some groups of PWUD. For example, one study found that individuals liked

that they had the choice of who was called should they overdose, and generally preferred this over emergency responders being activated.[109] However, there are several notable concerns with spotting, particularly when it is technology or phone-based. PWUD noted concerns regarding anonymity when using technology to access support, and concerns about interacting with strangers.[110] Further, PWUD who are homeless or unstably housed reported worries about inconsistent access to telephones.[22] Overall, researchers have noted that there exists a notable gap in support specifically developed for housing-based responses to the drug poisoning crisis, particularly given the association between marginal (or unstable) housing and overdose risk among PWUD. They similarly expressed concern for overdose detection and response technologies which rely on cell phones, as ultimately these services will not be of use for PWUD who may not have consistent access to cell phones.[111]

Overdose Response in the Community

Responding to an overdose can be an extremely stressful event. When individuals overdose, they may become unresponsive, and their breathing may cease or sound like they are snoring.[112] Due to respiratory depression or arrest from opioid consumption, a person's skin may become cyanotic or ashen.[112] The current drug landscape adds further complexities, with the toxic drug supply frequently having benzodiazepines (e.g., diazepam) and fentanyl analogues unpredictably added to opioids.[9,113] Benzodiazepines can independently depress respiration, thus exacerbating the interaction with opioids. Further, the potency of the unregulated drug supply is intensifying, with the presence of fentanyl in opioid-related deaths jumping from 40% to over 75% between 2016 and 2019.[114] This creates more difficulty in reversing

overdoses, often requiring several doses of naloxone, as well as periods of recovery extending over hours and days. Further, naloxone has a limited duration of action, with its effects only lasting for approximately 30-120 minutes. This results in persons requiring monitoring for several hours following an overdose reversal to ensure their ongoing safety. All these considerations create an environment of stress and anxiety for people responding to an overdose, particularly when they are unsupported or unequipped. With these many stressors, it is also important to consider that it is difficult to see a friend, peer, or family member overdose. The close relationships and bonds among PWUD mean there is substantial emotional, psychological, and social stress associated with being an emergency responder for a friend or peer.[98,115,116] A contributing factor to witnessing and responding to such overdoses as well might be that people recognize its proximity to them, in that they are aware that, at any moment, they as well could overdose and require assistance.

Thus, it may be acknowledged that PWUD frequently witness and respond to overdoses and are competent at doing so. However, there are substantial barriers to effective responses, such as a fear of prosecution by law enforcement, broken relationships with police, ineffectual amendments to the law, and stressors of responding to peers and friends experiencing the overdose. Further, PWUD and peers are the groups who are having the largest impact on the drug poisoning crisis through overdose response. These factors compound the psychological trauma experienced by PWUD responding to overdose, and currently there exist very few (if any) supports to offer them. Further, it has been noted that there is limited research in the area of psychological trauma associated with overdose response and a recent call to action by

harm reduction experts to expand research in this area.[23,117] Thus, it is crucial we speak to PWUD about their experiences in responding to overdoses to better understand their needs. These experiences and discussions are vital to inform policy and public health initiatives for PWUD, as the drug poisoning crisis continues to worsen in Canada with no end in sight.

Research with Marginalized Groups

In approaching research with marginalized groups such as PWUD, there are compounding ethical considerations that must be assessed from the moment the research idea is conceptualized through to the point of knowledge exchange and translation.[118] Selecting appropriate paradigms and methodologies does not evade these deliberations. In fact, when working with oppressed groups such as PWUD, positivist and postpositivist perspectives – which generally purport researchers being detached and neutral – are at risk of undermining the complex landscapes and repressive structures that reinforce marginalization through ignorance towards lived experiences hidden beneath the guise of objectivity. This may be illustrated through the revolutionary research that was completed within the North American Opiate Medication Initiative (NAOMI), which chiefly focused on comparing injectable diacetylmorphine (heroin) with oral methadone for the treatment of opioid use disorder through a randomized controlled trial.[119] Overall, the trial demonstrated that diacetylmorphine was superior to methadone within many outcome measures, such as the reduction of unregulated drug use as well as improved retention to treatment.[119]

The importance of research on heroin-assisted treatment and injectable opioid agonist therapy cannot be understated, as currently available treatment options such as

methadone and suboxone are insufficient for a subset of PWUD.[120–122] However, a closer look at the ethics of this study reveals the harms that were potentiated as well. Given the difficulty in accessing diacetylmorphine in Canada, the study exit plan included the termination of diacetylmorphine treatment for participants. Instead, methadone could be initiated as an alternative option. This was paradoxical, given that a main inclusion criterion for the NAOMI trial was that participants had attempted methadone maintenance treatment and not found it to be impactful. While the ethics boards and researchers believed this to be acceptable, PWUD did not. Ultimately, it was only through the advocacy and activism of PWUD that treatment options utilizing diacetylmorphine and hydromorphone were continued for some study participants.[123,124]

This is not to suggest qualitative research is inherently superior or safer when working with oppressed groups – there exists the potential for harm within any form of research. However, qualitative methodologies may serve as a means of amplifying the often ignored voices and experiences of marginalized groups such as PWUD.[125] Further, qualitative research may better serve to uncover "the norms, perceptions, and ideations that are held by specific target populations…people's reactions to specific health initiatives…[and] can be used to produce targeted interventions."[126 (p.170)] The need for the involvement of PWUD in their research has been expressed repeatedly by PWUD themselves, exemplified by the release of the *Nothing About Us Without Us* manifesto[127], wherein they declare that their expertise be central to all research and policy development that affects them. Following this approach, this doctoral thesis arose from clinical insights and extensive discussion with PWUD, peers, and harm reduction

workers. I have partnered with these groups throughout the research process to ensure ethical and appropriate data collection, analysis, and dissemination of results.

Chapter 3 – Theoretical Framework

"The range of human experience becomes the range of what is normal and usual in the lives of men of the dominant class; white, young, able-bodied, educated, middle class. Trauma is thus what disrupts the lives of these particular men but no other".

Laura S. Brown

This chapter details the theoretical underpinnings of this doctoral project. To situate and guide this research within this understanding of trauma, Bonnie Burstow's *radical trauma* theory[1] and her *layers of trauma* framework[2] are employed. Other traumatology critical theorists, such as Maria Root and her work on *insidious trauma*[128] as well as Johan Galtung's conceptualization of *structural violence*[129], are drawn on to further support this critical approach to trauma theory.

Current and Historical Conceptualizations of Trauma

Currently, the dominant framework used to understand psychological distress and trauma stems from the *Diagnostic and Statistical Manual of Mental Disorders*[130] (DSM), now in its fifth edition. The DSM-5 is influenced by a biomedical, postpositivist understanding of psychological health wherein individual symptoms are pathologized. Should a client's reported symptoms sufficiently align with the DSM criteria, a diagnosis may be explored. Trauma is catalogued within the DSM criteria of PTSD.[130] Although different versions of trauma have been presented within the DSM since its genesis (see Wilson[131] for a historical overview), it was not until the DSM-3 was released in 1980 that psychological trauma was formalized under this PTSD label to help explain distressing symptoms exhibited by soldiers following the Vietnam War, including anxiety and personality changes.[132,133]

Despite many revisions to the DSM, it remains steadfast in its dedication to the utility of expert-validated diagnosis, in defiance of critics describing it as “a grab bag of contextless symptoms, divorced from the complexities of people’s lives and the social structures that give rise to them.”[1 (p.1296)] Nevertheless, the power held by the DSM – and consequently, held by the label of PTSD – should not be underestimated when approaching the field of traumatology. The DSM may be used to justify or destroy legal pursuits, is used to consider whether or not someone may qualify for disability benefits and may be wielded to institutionalize individuals and determine they lack capacity to make decisions.[134] Given the medical authority ascribed to the DSM, it would be illogical not to consider its implications for trauma and substance use.

The DSM focuses on the manifestation of predetermined criteria as maladaptive responses. Through the systematic breakdown of human experience, it aims to provide a final diagnosis which may turn “these useful and often vital ways of coping into symptoms of a disease.”[135 (p.433)] When considering marginalized groups such as PWUD, the removal of context is concerning. Given the rigidity of DSM guidelines, the experience and effects of trauma are homogenized to align with the Western worldviews of those who conceptualized and created the DSM – that is, the white, middle-class, able-bodied, cis-male physicians, scientists, and researchers who have dominated the field of traumatology for centuries.[128,135] This reinforces the erasure of trauma that exists outside of that which can be understood by the most privileged.[136–138]

The broader implications of the medicalization of trauma within marginalized communities have been a central source of contention and movement forward within critical and radical trauma theories. Medicalization can be defined as a process whereby

human conditions and behaviours are classified and understood within a medical context. This often results in medical professionals researching, diagnosing, and attempting to treat or prevent this condition or behaviour. This can be concerning, as "the medical model decontextualizes social problems, and collaterally, puts them under medical control. This process individualizes what might be otherwise seen as collective social problems."[139 (p.223)] Concerning trauma specifically, the DSM prioritizes individual, deficit indicators of trauma which can be seen as demoralizing and oppressive.[136,138,140] There is an active ignorance of the broader implications driving trauma, including political oppression, cultural marginalization, and patriarchal domination, among many other disempowering systems.[125,136,138] Instead, the episode of trauma and suggested solutions, including therapy, medication, or institutionalization, are borne by the individual who is marginalized, saddling them with the responsibility for their new diagnosis and the navigation of the complex patchwork of underfunded and stigmatized resources representing our mental healthcare system.[128] Worse yet, within my research context, an individual who overdoses may then be seen as responsible for creating trauma for another, inadvertently categorizing them as a perpetrator of violence. Thus, we can begin to understand how current "hegemonic trauma discourse can be seen to serve as a political palliative to the socially disempowered"[136 (p.28)], suggesting an urgent need for a revised theoretical framework.

An Exploration of Radical Trauma Theory

When seeking to understand the essence of traumatic experiences, particularly for marginalized populations, it becomes clear that an individualistic framework is

inadequate. Brown encapsulated this sentiment in her critique of the medicalization of trauma:

> Simple bereavement may not be simple if this death happens after too many others; job loss may be traumatic when occurring in the context of extreme economic scarcity…. Social context, and the individual's personal history within the social context, can lend traumatic meaning to events that might only be sad or troubling in another place and time.[141 (p.110)]

To accurately conceptualize the experience of witnessing or assisting during a peer overdose, *radical trauma* theory[1] is of use. Burstow is self-described as being anti-psychiatry and vehemently opposed to the discrimination experienced by individuals through the use of mental health diagnoses and institutionalized treatment. She disavowed and criticized the DSM and its hold on trauma theory through both scholarly publications and activism which strove to unveil its harms.[135,142] These beliefs laid the groundwork for her *radical trauma* theory.[1] Although her focus remained on trauma and women, she often cited the applicability of her work to other oppressed and marginalized groups, such as the 2SLGBTQIA+ community and Indigenous people.[1]

There are several important assumptions underlying *radical trauma* theory.[1] First, trauma is understood to exist on a spectrum, allowing for the removal of damaging binaries created within the biomedical model approach (e.g., traumatized/not traumatized) and reinforcing trauma as "not a disorder but a reaction to a kind of wound."[1 (p.1302)] Through the removal of labels that may invalidate experiences and further alienate marginalized individuals, trauma may be reimagined as an appropriate and inherent reaction to being harmed. Rather than defining trauma through what are coined maladaptive responses, Burstow sees these responses as reasonable and expected, particularly when recontextualized within socio-political realities.[1] The use of

unregulated opioids and other substances to “numb” feelings and memories may be seen as a developed survival skill to allow for space between oneself and an inherently oppressive and traumatizing world. This recognition of coping also allows for the application of a strengths-based lens, wherein resilience and strength may be found. Rather than assuming despair and distress invariably follow a traumatic experience, an honest consideration of the range of reactions that may follow is considered. Indeed, feelings such as pride, justice, and empowerment have been reported because of responding to an overdose.[143–145]

Radical trauma theory[1] also recognizes the experience of trauma by marginalized individuals as complex and compounding. Oppressed groups are invariably exposed to more instances of aggressive, overt trauma (e.g., PWUD violently arrested for possession of fentanyl) while additionally having access to fewer supports and resources[23,146] (e.g., lack of finances for an appropriate lawyer). This is further augmented by a perpetual backdrop of *insidious trauma*.[128] *Insidious trauma* presents covertly and may not have an easily discernible perpetrator. This trauma instead originates from “living day after day in a sexist, racist, classist, homophobic, and ableist society”[1 (p.1308)] reinforced through patriarchal and capitalistic ruling.[128] Thus, understanding a specific instance of trauma may only be achieved once one is able to step back and critique the broader influential structures reinforcing traumatizing processes.

The Application of the Layers of Trauma Framework

To depict trauma from a critical/radical perspective, Burstow created her *layers of trauma* framework[2], which allows for complex and comprehensive explorations of the

research questions at hand. It is important to note that although the theoretical framework is depicted as linear, it should not be understood as straightforward and sequential. The layers are recognized as interconnected, with forces moving back and forth across the continuum, or spanning its entirety. Within the context of an overdose in the community and PWUD, the eight layers will be explored as seen in Figure 1.

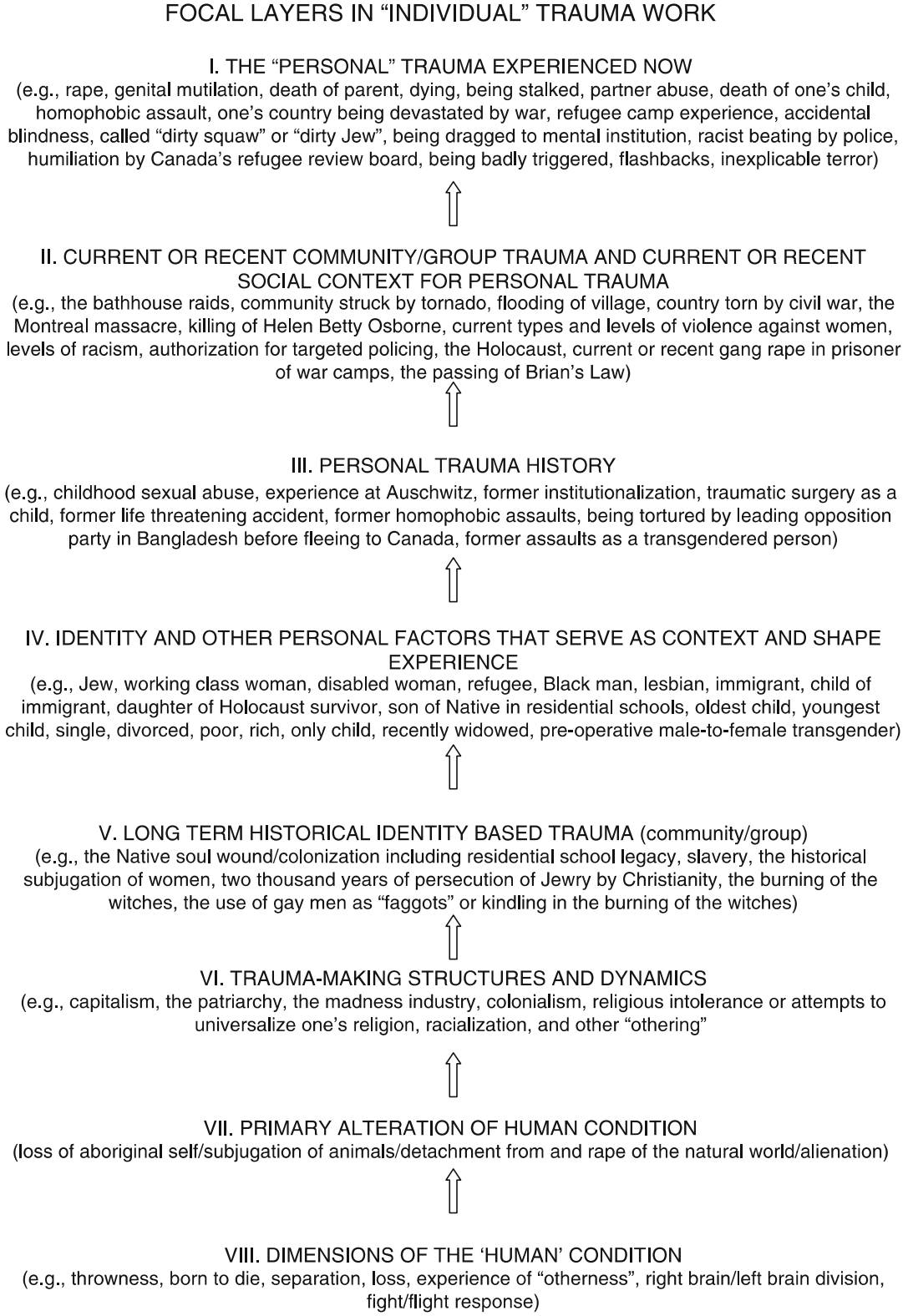

Figure 1: Bonnie Burstow's Layers of Trauma Framework

1. The "Personal" Trauma Experienced Now

As previously stated, the focus of this research will be to explore the mental anguish and psychological trauma faced by peers responding to overdoses in the community. While critical trauma theorists have moved away from focusing solely on individual events, the very real and personal effects of trauma must be recognized and appreciated before deeper understanding is pursued. Despite their desire to eliminate individual labels, Burstow and colleagues pressed this point in later publications, acknowledging the "very real suffering that people experience – emotional distress, anxiety, and pain in the body."[142 (p.199)] By initially focusing on the overdose incident at hand, a recounting of personal reflections and interpretations will be possible.

Bearing witness to an overdose can be stressful or traumatic for anyone given the rapid decline that may occur through sudden unresponsiveness, altered or absent respirations, cyanotic or ashen complexion, and other distressing presentations, including seizure or cardiac arrest.[112,147] In many ways, observing such stressors as a peer may amplify the overdose significance.[23] The peer responder may have a close relationship or bond with the individual, heightening their distress. As well, the peer responder may see a reflection of themselves in this experience, whether it be through a previous overdose incident of their own, concern for use of the same substances as their peer or envisioning their own potential future overdose.[98,115,116]

2. Current/Recent Group Trauma and Social Context for Personal Trauma

Often, marginalized groups are faced with recurrent and multifaceted experiences of current or recent trauma.[1,146] While witnessing an overdose may be traumatic, this is compounded through the many other experiences of trauma that

PWUD navigate daily. A central contributor to this includes the toxic unregulated drug supply PWUD are forced to consume. In 2016, the unregulated heroin market rapidly became volatile through the addition of fentanyl[9] which resulted in British Columbia's provincial health officer declaring a public health emergency.[148] Since then, additives have become increasingly unpredictable, with recent drug testing in Toronto unveiling a multitude of substances added to "heroin", such as caffeine, amphetamines, and benzodiazepines.[113] Paralleling these changes, the opioid-related death rate in Ontario has increased from 6.2 per 100,00 in 2016 to 16.3 per 100,000 as of April 2020.[114] This drug supply is commonly likened to Russian Roulette, wherein the user is forced to wager their life each time they use, adding a layer of anticipated unpredictability and actualized risk.[149,150]

Dangerous and damaged relationships with law enforcement add further complexity to the precarious landscape of substance use. Hesitation to call for emergency services among PWUD is commonly reported, as calling 911 for an overdose generally results in police dispatch. Fear, mistrust, and anger towards law enforcement are validated through the well-documented abuse and mistreatment of PWUD.[91,92] There exists anticipation of arrest and incarceration for involvement in unregulated drug use or blame should their peer die as a result of the overdose.[77,84,89,90,93,94] To encourage emergency service use, the *Good Samaritan Drug Overdose Act*[99] was established. However, the wording remains vague and under-developed, allowing for interpretation by individual officers.[85]

3. Personal Trauma History

Although PWUD are often characterized by health authorities and governmental organizations as a homogenous group, there has been a movement within the harm reduction community to recognize the many cultures and individual attributes of PWUD to further research, policy, and practice.[151,152] Burstow's third layer reinforces this necessity and aligns with these calls for action. Personal histories may only be uncovered through the research process.

4. Identity/Other Personal Factors That Serve as Context and Shape Experience

The categorization and labelling of individuals extend far beyond the mental health realm. Although Burstow focused largely on psychiatry's attempts to label and demarcate differences through pathologizing diagnoses, critical trauma theorists also point to the further marginalization of groups through factors that promote division, such as labels and classification, which eventually are taken on as parts of one's identity.[1,136] This form of othering continues to drive certain groups to the margins while reinforcing elevated social positions for others. The identifiers associated with PWUD are confusing and contradictory. While medicine may label PWUD as unwell through a substance use disorder label[130], they also bewilderingly use this diagnosis to restrict access to institutions and programming that claim to be created for individuals with mental health concerns. Further, PWUD are forced to carry the label of *criminal* due to the current criminalization of drug use. Despite the efforts of harm reduction services and the existence of drug use exemptions, there is no guarantee of escaping this label. In turn, being labelled both a criminal who is actively breaking the law and a patient who is

unwell creates immense ostracization and forces navigation of an impossibly unpredictable landscape.[153]

5. Long Term Historical Identity Based Trauma (Community/Group)

Influential to the experience of trauma are historical occurrences that are shared within a community. Commonly, individuals outside of directly impacted groups agree on the horrendous nature of certain events but may refute the significance to contemporary individuals who did not directly experience these horrors. However, the impacts of transgenerational trauma should not be underestimated.[1] For example, while the Holocaust and Residential Schools were devastatingly detrimental to those directly exposed, their consequences did not simply dissipate following their formal conclusion. Rather, impacts are carried forward into future generations.

PWUD as a group carry historical trauma because of the war on drugs. Drug use in Canada and the United States has an arduous history, within which the regulation and prohibition of drugs may be understood as arising through manifestations of racism and classism.[35,154] A push for the medicalization of forms of drug use shifted the control of substances to those deemed expert.[39] Importantly, the war on drugs was targeted not towards all drugs as the name might suggest, but only towards people who consumed drugs that were not controlled by the state, such as unregulated heroin, crystal methamphetamine, and crack cocaine.[38,155] Although these roots have become entangled – and at times buried – beneath the horrors faced within the current drug poisoning crisis, the lasting impacts of the war on drugs are crucial to unpack and dismantle.

6. Trauma-Making Structures and Dynamics

Ultimately, damaging, and violent structures support and maintain the layers of trauma. As Burstow noted, "trauma is inherently political"[1 (p.1306)] and may begin to be examined through Galtung's conceptualization of *structural violence*.[129] It is comparable to *insidious trauma*[128] as there is not a singular, distinguishable culprit to hold responsible. However, while *insidious trauma* focuses on the often hidden yet constant backdrop of oppression among marginalized populations, *structural violence* seeks to explore the harm to certain groups and the concomitant elevation and reward of others through economic and political means.[129] It occurs when the inflicted harms are conceived as avoidable under differing circumstances (e.g., an individual who is homeless freezes to death outside[156] while the same society champions billionaires[157]).

A danger of *structural violence* is its ability to remain inconspicuous.[129] The perils of capitalism hide beneath Western rhetoric surrounding self-sufficiency and false promises of a better tomorrow for those who work hard enough. This ultimately leads to victim blaming. To maintain power differentials and shift blame away from institutions that perpetuate violence, covert tactics may be employed. Although government institutions may seem to have developed their understanding of substance use over the decades, messaging remains focused on abstinence.[36,118] The "Just Say No" to drugs campaign from the 1980s and 1990s underwent significant criticism for reinforcing the war on drugs, pushing for mass incarceration, and creating false narratives around substance use.[36] Despite this, the Government of Canada currently maintains a "Reasons to Say No to Drugs" guide.[158] Certainly, there exist innumerable perpetuations of *structural violence*, necessitating the exposition of these structures.

7. Primary Alteration of Human Condition

The trauma brought about by the separation of humans from nature as perpetuated by non-Indigenous individuals is presented by Burstow as an alteration which "affects the vast majority of groups on this earth."[1 (p.1309)] Disconnect from nature has changed the way humans interact with the world, moving away from what was once a synergistic relationship. This estrangement is underscored within Western societies which perpetuate individualistic goals and missions over the larger collective good. Alienation is apparent in many aspects of the lives of PWUD and results in their rejection based on a failure to conform to socially constructed norms. They have been forcibly removed from modern society through the prohibition to exist within what have been determined to be public spaces such as parks and schools, as well as the need to hide their proscribed identities to avoid stigma, abuse, and further rejection.[21,145,159,160]

8. Dimensions of the 'Human' Condition

Burstow refers to this final layer as the trauma-making dimensions which are fundamentally intertwined within human existence.[1] Although humans attempt to assert dominance over one another (e.g., incarceration, institutionalization, legislation) as well as all that exists outside of us (e.g., exploitation and excessive consumption of natural resources), there are certain inescapable and uncontrollable conditions, such as thrownness and being-towards-death as described by Heidegger.[161] Thrownness accounts for the lack of control that we have over not only when we are brought into the world but also the conditions that we are born into. These conditions are particularly important when considering the inevitable and lifelong trauma experienced by PWUD, reinforcing both a lack of control and compounding disparities. Conversely, humans also

struggle with the knowledge of impending death from the moment insight and consciousness are achieved. Being-towards-death underscores the finitude of life itself, with death remaining inevitable despite desperate attempts to prolong life in our death-denying society.[161] While this inescapable dimension extends to all humans, the prominence of death within the lives of PWUD lingers. Reminders of death manifest in the experiences of overdose and the threat of harm each time unregulated drugs are used. While all humans are subject to these trauma-making dimensions, the burden is undoubtedly intensified among PWUD.

Through the deconstruction and critique of current dominant understandings of trauma it becomes apparent that simply pathologizing traumatic experiences may serve to further disempower marginalized groups. Given the cited importance[23,144] of exploring peer community overdose response to construct appropriate supports, a novel theoretical framework for trauma based in socio-political realities is necessary. The integration of Burstow's work may assist in building upon current understandings of trauma, as well as may serve to reveal unexplored areas of knowledge. Through an exploration of Burstow's radical lens[1,2], the complex layers of trauma experienced by PWUD has begun to be revealed and may give light to a framework within which research data and findings may be appropriately supported and understood.

Chapter 4 – Methodology

"One doesn't have to operate with great malice to do great harm. The absence of empathy and understanding are sufficient."

Charles M. Blow

This chapter provides an overview of the methodology utilized to complete this research, including a review of the selected research design. Following this, an explanation of working alongside a peer consultant is provided, followed by a description of the research setting, sampling, as well as data collection and analysis. Finally, ethics and rigor as they apply to this research are reviewed. Ethics approval was obtained from the University of Ottawa to complete this research (H-04-21-6782). See Appendix B for the Ethics Approval Certificate.

Design

To better understand the experiences and realities of peer overdose response in the community and requisite resources, qualitative methods were employed. Specifically, IPA was used. IPA lends itself to detailed and nuanced accounts of events, which is advantageous, as innovative, and useful supports may only be developed through an honest understanding of current and historical experiences.[162–166] Experimental designs do not lend themselves to understanding mental health and trauma, making interview and fieldwork appropriate approaches to data collection.

IPA, moreover, allows researchers to actively engage with study participants to reflect on and interpret the participants' unique experiences. This is particularly useful when attempting to better understand an experience which holds importance and significance to an individual or group. When using IPA, researchers employ an

idiographic, inductive approach which assists them in analyzing the inherently subjective core elements of an experience.[162] Further, IPA stresses the importance of viewing individuals within their greater context to facilitate understanding. IPA also relies on three foundational domains of knowledge, which include (1) phenomenology, which seeks to understand human experience; (2) hermeneutics (interpretation), which is often exemplified through the concept of the hermeneutic circle, wherein movement between the whole and the parts allows for an iterative analysis of experience; and (3) idiography, which is attentive to the unique details of subjective experiences.[162] These influences lead to the understanding that when exploring experiences through IPA, reflection may only be performed retroactively – "pure" experience is unattainable. Additionally, the theory of double hermeneutic arises during the research process, wherein the participant interprets their own reflections of experience while the researcher works to understand and interpret those experiences they seek to uncover.[162]

In keeping with the published literature on IPA, 20 peers were recruited for in-depth, semi-structured interviews as well as brief questionnaires.[162,167,168] The need for the involvement of PWUD in their research has been expressed repeatedly by PWUD themselves, exemplified by the release of the *Nothing About Us Without Us* manifesto[127], wherein they declare that their expertise be central to all research and policy development that affects them. Following this approach, this dissertation arose from clinical insights and extensive discussion with PWUD, peers, and harm reduction workers. A peer consultant with lived experience was hired to ensure the entire

research process – from topic selection to the dissemination of findings – was completed appropriately and reflective of the current climate of overdose response.

Peer Consultant

Funds were secured to hire a person with lived experience as a peer consultant to provide direction, input, and expertise with regard to the research process. This role was vital to ensure the methods, data collection, analysis, and outcomes of this thesis research were aligned with the day-to-day realities of responding to drug overdoses in the community. The peer consultant was compensated $50/hour and worked a total of 25 hours over the course of this research. Funding was acquired through a grant provided by the Ontario Drug Policy Research Network. The expertise and guidance of the peer consultant were essential to ensure the research was impactful and meaningful for the community of PWUD who would be participating.

Initially, the peer consultant participated in thesis research meetings to provide feedback regarding the focus of the thesis as well as the research objectives and questions being targeted. Once this was finalized, they collaborated with the researcher to develop tools for data collection, including the participant questionnaire and semi-structured interview probes. They also reviewed all other relevant research materials (e.g., consent forms, recruitment posters, etc.) to ensure they were appropriate and coherent. Many changes were made based on their insightful feedback. Once data collection tools were finalized and Research Ethics Board (REB) approval was granted, all fieldwork and data collection occurred in partnership with the peer consultant. Their extensive connections and decades of involvement within the community of PWUD allowed them to rapidly locate participants with the relevant experience to engage in

questionnaires and interviews. They assisted in ensuring the voices of the most marginalized groups among PWUD were heard, speaking with groups including but not limited to, women, 2SLGBTQIA+ participants, and individuals who are Indigenous.

The peer consultant was able to assist participants in completing the questionnaire, as most people struggled to do this independently and preferred to have the questions read out loud to them in a private setting. The peer offered to sit in on the semi-structured interviews – most participants accepted this offer and reported they would feel more comfortable with the peer in the room. Several participants disclosed that the peer's presence offered a sense of camaraderie, trust, and safety which contributed to their enthusiasm in participating in this research. In some interviews, the peer consultant would only provide some feedback and clarifications when participants struggled to answer a question. In other interviews, the peer consultant acted as a second interviewer, asking questions and referring to the interview probes to ensure all topics were covered. Finally, the peer consultant assisted with ensuring the results of this thesis were appropriate and aligned with the information they felt participants were conveying throughout data collection.

Research Setting

This study occurred in Ottawa, Ontario, and focused on accessing the urban community of PWUD. Ottawa is an appropriate setting for this study, as it has a large and diverse population of PWUD, with Ottawa Public Health reporting "an estimated 23,600 – 46,900 individuals in Ottawa have used unregulated drugs… in the past 12 months."[169 (p.4)] Further, this focus on accessing the urban community of PWUD aligns with Ottawa Public Health's findings of heightened drug activity within the Downtown

Core and the Rideau-Vanier ward. Paramedic calls for drug overdoses also demonstrate this, with most calls being made from the Downtown Core.[169]

Specifically, the research team collected data within one of the four operating SCS located within the Downtown Core. The only 24/7 SCS ("The Trailer") in the city was selected as it is the optimal location given the high volume of PWUD who use their services each day – they record approximately 190-220 visits to use their drug consumption services in each 24-hour period. This number does not include the number of PWUD who access the service to acquire sterile gear or site for use elsewhere. The Trailer offers drug checking, peer assistance, and allows clients to use regulated or unregulated drugs via injection (subcutaneous or intravenous), intranasally, or orally on-site. They have a federal exemption under section 56.1 of the Controlled Drugs and Substance Act to allow for these services to be offered.

The Trailer is operated by Ottawa Inner City Health, a non-profit organization that seeks to reduce healthcare inequities and improve the quality of life for individuals who are chronically homeless and unstably housed using harm reduction strategies to deliver physical, mental, and substance use healthcare in the community. Ottawa Inner City Health is a recognized national and global leader in harm reduction, offering over 15 unique programs to people with substance use concerns, mental health concerns, and people who are homeless/unstably housed.[170] Ottawa Inner City Health granted permission for the researcher and peer consultant to recruit and conduct research within their SCS.

Recruitment

Recruitment of PWUD must be done with caution and with the recognition of this group as a marginalized population that are susceptible to exploitation and abuse. Recruitment barriers among marginalized populations may include feeling labelled as a participant, mistrust in the research process, fear of discrimination, worries about confidentiality, and concerns surrounding any legal implications of becoming a research participant.[171,172] There is no "best strategy to find each hard-to-reach, hidden, or vulnerable population as the diversity in such populations is infinite"[171 (p.8)], and instead, variability, flexibility, and creativity must be used to recruit.

To best address this, targeted recruitment strategies were used within the setting selected. Posters were created which outlined the study objectives, inclusion and exclusion criteria for participation, data collection methods, expected length of time for participation, contact information for the research team, and reimbursement information (see Appendix C).

Along with contact information, a drop-in location ("The Trailer") was given as an option for PWUD to stop in and speak with the researcher who was working at this location as a registered nurse at the time. This was done to allow for PWUD who may not have access to a telephone or email address to contact the researcher in person to facilitate more inclusive participation. Many organizations were given these posters to display within their programs, including other SCS in Ottawa, shelters, addiction medicine clinics, and pharmacies where PWUD are known to frequent. Staff were encouraged to reach out to the research team with any questions or concerns should they arise. Possibly the most important recruitment strategy was engaging with a peer

consultant from the outset of this research project as discussed earlier. Engaging with members of the community to have them act as cultural brokers has been shown to help increase recruitment rates.[172] A few days before the researcher would be at the Trailer to conduct data collection, all organizations that displayed posters were informed of when and where people could be directed should they want to inquire about being a participant.

Sample

IPA relies on purposive sampling techniques to engage with individuals who have experienced the same phenomena of interest, including "referral, from various kinds of gatekeepers; opportunities, as a result of one's own contacts; or snowballing"[162 (p.49)] from the chosen setting. Thus, purposive sampling was performed within the urban community of PWUD in Ottawa, Ontario. In keeping with the published literature on IPA, 20 PWUD were recruited for in-depth, semi-structured interviews as well as questionnaires to further contextualize findings.[162,167,168] The criteria for participation in this study included any peer or PWUD who has responded to an overdose outside of formal harm reduction and healthcare-related settings (i.e., not supported by healthcare providers) and who is capable of consenting to participate in the research study. The exclusion criterion included individuals who are under the age of 18.

Data Collection

IPA does not have overly prescriptive directives for data collection and selected methods; however, it often relies on interviews as a primary source of information. Alternative methods frequently used in IPA include questionnaires and surveys, field observations, focus groups, participant journaling or photography, and the study of

pertinent documents or artifacts.[167,168] For this research, we opted to use both questionnaires and interviews to ensure a comprehensive exploration of peer overdose response in the community and allow for rich descriptions of the processes, phenomena, and associated concepts. Before starting any data collection, an explanation of the project was provided to each potential participant. The consent form (see Appendix D) was reviewed in detail with each person. Once the participant had agreed to participate, two copies of the consent form were signed by both the researcher and the participant. One copy was given to the participant, while the other was kept by the research team per REB regulations.

Questionnaire

Questionnaires were completed with participants before interviews to collect information on socio-demographic data, including questions about age, gender, ethnicity, housing, income, substance use, and other basic information. See Appendix E for the complete questionnaire. Participants were offered the choice of filling out a paper copy of the questionnaire themselves or having it read aloud to them, with the researcher documenting their answers. Most participants opted to have the questionnaire read out loud to them.

Interviews

Interviews for this research study were semi-structured to (1) address information deemed important by the researcher from the literature, as well as (2) provide participants flexibility within the discussion to allow them to explore topics based on their unique experiences. Overall, the interviews were guided by the thoughts and experiences of the participant, with the interview probes (see Appendix F) available for

referral by the interviewer to guide the conversation as needed. The probes were screened by the researcher, her doctoral supervisor, and the peer consultant to confirm they are open-ended, clear, and use appropriate and sensitive language.[173] The length of time needed for each interview varied broadly between participants, though generally speaking, they took approximately 15-60 minutes. Participants were offered breaks as needed throughout data collection and were aware they could end the research process at any time.[174] A few participants opted to take breaks. Interviews took place in a private room within The Trailer. Participants were aware the interviews would be recorded and transcribed immediately after the interview was completed.[173]

Data Analysis

Data collected from the questionnaires is reported using descriptive statistics. Specifically, this includes means and standard deviations for normally distributed variables, medians and interquartile ranges for skewed variables, and proportions and percentages for categorical variables.

Like other forms of qualitative inquiry, IPA broadly uses a process of breaking apart interview data to allow for its subsequent reconstruction.[175] Analysis overlapped with data collection (1) to improve upon data collection over time and (2) to continuously inform new probes in interviews and add understanding to the data being collected. Evidently, interpretation is central to data analysis within IPA and relies on a researcher's instincts.[162] Smith, Flowers, and Larkin[162] offer discrete steps to guide IPA interview analysis, which were completed as follows:

A. Upon completion of an interview, the audio recording was transcribed verbatim, including interviewer and participant text. I repeatedly read through the collected

data, as well as listened to the audio records to help nuance initial interpretations.

B. Initial noting was then undertaken, whereby notes and comments were assigned to individual sections of data while maintaining contextual information. I maintained openness to what the data may bring forth, while also considering statements and descriptions which may be of particular importance as denoted by the participants.[167]
C. Notes and comments were then clustered together to form larger themes within individualized interactions with participants, followed by the bunching of themes across data collection interactions.
D. Themes moved from concrete labels to theoretical underpinnings which aim to reveal the essence of the experience under study.[162]

This was an iterative, cyclical process. Decisions made throughout the entire analysis process were well documented to maintain a clear audit trail. Quotes and text segments that lent themselves particularly well to the themes that have arisen were flagged for future use in the writing of thick descriptions. Of note nVivo 1.7.1. software was used to organize and complete data analysis.

Ethics

Due to the stigma, immense rejection, and discrimination faced by PWUD, they must be considered as a marginalized population, particularly in research. Confidentiality is a central concern in the completion of research with PWUD, as the information being discussed could include the disclosure of activities that are illegal or demeaning.[176] A breach of confidentiality may have severe implications, such as social

rejection, criminal prosecutions, or damage to one's reputation.[177] To protect participant information, security measures were put in place far in advance of data collection. Participants were provided with a unique code to avoid the use of their names on documents outside of the consent forms (e.g., P1, P2, P3, etc.). This list was kept on a separate, encrypted and password-protected external hard drive. During interviews, participants were recorded on two separate secure devices, each password protected with different codes. Any field notes or physical written information was placed in a locked cupboard inside of a locked office at the University of Ottawa. Further, electronically typed transcriptions and recordings were stored on an encrypted and password-protected external hard drive. Transcripts were carefully de-identified, and the printing and copying of data were kept to a minimum to avoid duplicates being circulated or lost.

The compensation of PWUD in research is often debated. Some researchers feel that using cash may be unethical, as PWUD could use this money to buy unregulated substances or participate in illegal activities.[176] Rather than cash, the idea of vouchers or gift certificates has been raised.[178] However, this thought process arises from negative stereotypes of PWUD, and the decision to not pay them is unethical and patronizing. The Canadian HIV/AIDS Network[127] echoed this sentiment and believes that PWUD should be paid appropriately for their time, with investigators not asking how the money will be used. Thus, for this research, each participant was paid $50 cash to ensure they were compensated appropriately as knowledge experts.

Prior to initiating data collection, plans were put into place to manage any unpredictable scenarios that may have arisen over the course of the study, such as

concerning or dangerous behaviours, participant intoxication, or suicidal ideations. The research team had discussions surrounding the need for flexibility, a willingness to adjust based on participant needs, and a desire to value the well-being of the participants over the results of the research. Throughout data collection, a nurse, physician, or nurse practitioner was always available for consultation. A list of outside resources for urgent referrals was compiled before data collection should the need for additional support arise. Further, all individuals in contact with participants carried a cellular device, were extensively trained in naloxone administration, and always maintained an adequate number of doses of naloxone with them.

Rigor

Rigor and trustworthiness are pertinent for the success of qualitative research. Trustworthiness is achieved when research provides convincing evidence with persuasive conclusions. Four criteria were outlined by Lincoln and Guba[179], which included credibility, dependability, confirmability, and transferability will be used to ensure the creation of appropriate, high-quality research. Of note, confirmability (or neutrality) will not be discussed, as it seeks to ensure the findings arise from the data collected from the participants and are not impacted by the biases and perspectives of the researchers.[179] Although steps were taken to ensure the voices of participants were prioritized (e.g., researcher attitudes, biases, and feelings around the topic were confronted and discussed with the doctoral supervisor prior to initiating the research), it would not be possible or beneficial to remove all bias and perspectives of the researchers and maintain complete objectivity.

Credibility evolves from confidence in the findings of the study, and a belief that the interpretation by investigators aligns with the truth of the participants. This is shown through not only the demonstration of credibility in results but also credibility through the planning and initiation of the study.[179] To have credibility, prolonged engagement with the population was undertaken, as well as ongoing collaboration with a peer consultant. This allowed for rich, contextual descriptions, as well as an ability to develop rapport and trust with the participants.

For the criteria of credibility to be met, dependability must also be achieved. Dependability results when the accumulated data may be replicated with similar conditions and participants.[179] An audit trail may help to validate this. For example, when transcripts were coded and subsequently clustered under themes, notes and comments illustrating the thought process of the researcher from start to finish were maintained. No decision was made without a clear explanation.

Finally, applicability (transferability) helps to show the ways in which study findings may be generalized to other contexts and participants.[179] Having an extensive description of the sample being studied was important – the inclusion of a questionnaire largely satisfies this criterion. Further, descriptions of the research context were elaborated upon while also considering client confidentiality. Thick descriptions that incorporate participant quotes, researcher observations, and contextual descriptions have been used.

Chapter 5 – Results

“I sat with my anger long enough until she told me her real name was grief.”

C.S. Lewis

This chapter presents the results of data collected from 20 participants on the topic of overdose response in the community. Data collection occurred in Ottawa, Canada, over the span of three days in August 2021. Both the doctoral student researcher and the peer consultant participated in the data collection process. To participate in the research study, participants were asked to complete a brief questionnaire followed by an audio-recorded semi-structured interview with the researcher and peer consultant. First, results from the questionnaire are presented to describe participant socio-demographic data as well as self-reported responses on the topics of substance use and harm reduction. Appendix G provides a detailed breakdown of questionnaire results. Following the results from the questionnaire component, thematic results from the audio-recorded semi-structured interviews with participants are presented.

Questionnaire

The participant questionnaire was comprised of 17 closed-ended questions (see Appendix E for the list of questions). Each participant was provided with the choice of either having the questionnaire read out loud to them or filling out a paper copy on their own. Almost all participants preferred to have the researcher or peer consultant read the questionnaire out loud to them. Participants had a median age of 38 (IQR 33.5 – 45), with the youngest being 27 and the oldest being 55 years of age. Half of the participants identified as male, 45% identified as female, and 5% as other. Of note, self-reported

gender of women and men include both cis and trans individuals. Given the small number of individuals who were trans within these programs, gender was grouped this way to protect privacy and confidentiality. With regards to ethnicity, 50% of participants identified as white, 30% as Indigenous, 10% as Black, and 10% as other. Just over half of participants reported their sexual orientation as heterosexual, followed by bisexual (20%), and other (25%). Most participants were currently staying in a shelter (30%), 25% were sleeping on the street/outside, 20% were in stable housing, 20% were in unstable housing (e.g., staying with a friend, couch surfing, etc.), and 5% were living in an encampment/tent. Less than half (45%) of participants were on government assistance (Ontario Works or Ontario Disability Support Program), 30% were self-employed, 15% reported other employment, and 10% were working full time. The highest level of education most commonly reported by participants was less than high school (40%), followed by high school (35%), college (15%), and university (10%).

Participants were asked about substances they have used in their lifetime – a pre-determined list was provided, and participants were asked to select yes or no. The most common substances used were cannabis and cocaine, with all participants having used these. 19/20 (95%) of participants reported using crack cocaine, crystal meth, hydromorphone, and alcohol. 18/20 (90%) of participants reported using diacetylmorphine (heroin), fentanyl, and other opioids. 17/20 (85%) participants reported using prescription stimulants and hallucinogens. The least commonly used substances included benzodiazepines (15/20 [75%]), inhalants (8/20 [40%]), and anabolic steroids (3/20 [15%]).

All participants reported having experienced some sort of complication because of their unregulated substance use. The most reported complication was frequent overdoses (18/20 [90%]), followed by criminalized behaviour, abscesses or skin infections, and hospital visits (17/20 [85%]) and finally, Hepatitis C (14/20 [70%]). The least commonly reported complications included endocarditis (5/20 [25%]) and HIV (4/20 [20%]). Participants reported using substances in a variety of locations, including supervised injection sites (18/20 [90%]), at home or someone else's home (18/20 [90%]), in public or outside (18/20 [90%]), and in a shelter (17/20 [85%]). All participants reported using some form of harm reduction service, with the most common being sterile site distribution and take-home naloxone (18/20 [90%]) and the least common being education/training (12/20 [60%]).

Participants were asked about their substance use habits, including whether they typically use substances with others or alone. Most participants (14/20 [70%]) reported they use substances sometimes alone, sometimes with peers. No participant reported always with peers/others around. Only 40% of participants consistently carry naloxone with them, followed by 30% usually carrying naloxone, 20% sometimes carrying naloxone, and 10% never carrying naloxone. Finally, participants responded to a median of 3.75 overdoses in the past 3 months, with the least number of overdoses being 1, and the greatest number of overdoses being 25.

Interview

Following the completion of the questionnaire, participants were invited to complete a semi-structured interview with the researcher and – should they elect for them to be present – the peer consultant. From these interviews, 5 themes arose, which

include 1) labour, 2) citizenship, 3) trauma, 4) current services and supports, and 5) envisioning the future. Each of the 5 themes is comprised of several sub-themes. A complete overview of all themes and sub-themes is laid out in Figure 2.

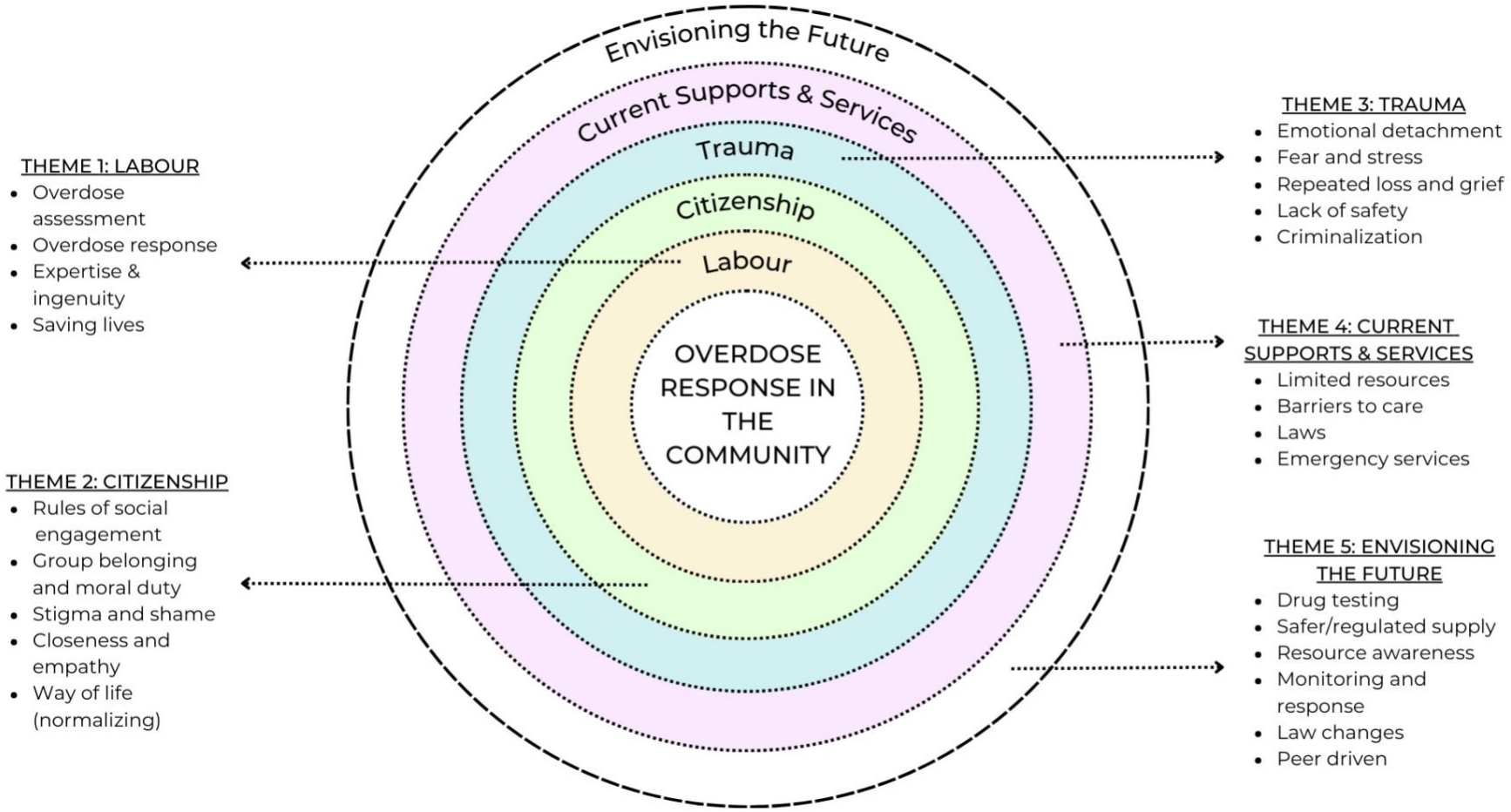

Figure 2: Result Themes and Sub-Themes

Theme 1: Labour

At the heart of the experience of responding to an overdose in the community lies the participation in labour by PWUD. This type of labour is not broadly recognized or remunerated by individuals outside of their community, though the expectation to participate is clearly present within the community. Responding to overdoses outside of formalized healthcare settings and in the community occurs in secret, rendering it effectively invisible to people who do not use drugs or are not associated with the unregulated drug market. Participants described many reasons why they felt overdose response was representative of invisible work, with some of the most prominent factors being the ongoing criminalization of PWUD and a lack of resources/awareness with regard to drug use in the community. Participants described depending on one another (PWUD) to ensure the safety of each member, with the consequences of not participating in the labour of overdose response being severe: “There’s a job to get done or you’ll never see that person again. Someone has got to do it, right?” (P9). Five sub-themes describe this theme, including 1) overdose assessment, 2) overdose response, 3) expertise, 4) ingenuity, and 5) saving lives.

Subtheme 1.1: Overdose Assessment

At the start of the interviews, participants were typically prompted to begin by describing a recent opioid overdose they had responded to, or one that held significance to them. Typically, this led participants to begin by describing the moments immediately before their overdose response. This time often included participants undertaking a thorough and expert assessment of the person who was using drugs, such as assessing the person for signs associated with overdose (e.g., respiratory

depression, skin discolouration, unresponsiveness) and indications as to the severity of the overdose (e.g., length of time unconscious, breathing slowed or absent, etc.). Despite all participants noting they had never been formally trained in overdose response, each person was able to explain, in great detail, their individual methods for confirming that a person was overdosing on drugs and required assistance. Most commonly, participants described changes to skin pallor as a preliminary finding when someone overdoses: “He was turning blue, not instantaneously, but slowly” (P20). Another participant described a similar experience when they recounted changes in “the colour of his skin – I could tell that he was losing colour” (P12). Similarly, one participant noted changes to a person’s colour that extended beyond their complexion:

> Everything was blue. Eyes were blue, the white in her eyes was blue. Tongue was blue. Gums were blue. Lips were blue. Skin was blue. Everything was blue, and she had no motor functions. Everything that your body involuntarily does on its own was not working (P15).

The speed at which pallor occurred (e.g., how quickly someone lost their colour) was indicative of the severity of the drug overdose by a number of participants – for example, if someone turned pale/blue/ashy within 30-60 seconds of using drugs, this would be considered a more severe overdose than someone who lost their colour over the span of 15 minutes. Overall, this sign was an important indicator echoed by most participants, making it a crucial finding in the initial stages of completing an overdose assessment.

In addition, changes to breathing rate, rhythm, and pattern were also commonly used by participants to estimate the severity of an overdose: “They turned blue… they weren’t breathing” (P7), and “I noticed that he stopped breathing” (P13). Respiratory depression is a well-established side effect of opioid overdoses and can be fatal if left

untreated for even a relatively short period of time. Interview participants emphasized the importance of recognizing and addressing any changes to or abnormal breathing through one of the following ways: 1) physically touching the person on the chest or back, 2) visually watching the chest and/or back for the rise and fall of breathing, or 3) audibly hearing breathing. These assessments were made increasingly difficult when participants themselves were also using drugs, which was extremely common. Participants described the importance of remaining vigilant from moment to moment – constant re-assessment of the people around you who were using drugs was required to ensure their safety.

A number of participants spoke about audible changes to an individual's breathing, such as hearing a "gurgling noise" (P14) or "a snore-y kind of breathing" (P9). One participant recounted a time when they had to call emergency services for a friend who was overdosing, and how they subsequently labelled the sounds that can be heard when someone is in respiratory depression: "I call it the *death rattle* – they do it when they're going under, and they do it when they're coming back" (P17). Finally, one participant described an unnerving situation when using drugs in the community with a friend: "It was basically his breathing. I couldn't see any chest movement. I was looking at him and he looked like a dead person… No movement… [I thought] this is not right. It's not supposed to happen" (P5).

The final sign participants described as related to opioid overdose was when individuals became non-responsive to stimuli. This includes the application of physical (e.g., touching, shaking, temperature changes) and/or auditory (e.g., yelling, clapping) stimuli to rouse the person experiencing an overdose. One participant noted they can

tell a person is overdosing when “the person is like heavy on the nod, you know? If they’re not responsive to any type of stimuli, whether it’s painful or verbal” (P2). To test this, several participants described different methods, such as yelling the person’s name, applying hot or cold objects to their skin, or applying physical pressure:

> I started to slap him, maybe to see if he can respond. He was not responding. I tried to touch his veins [gestures wrist where pulse is taken] and tried to see if he was still breathing at least. He was breathing a little bit, but not conscious (P10).

Overall, participants were able to clearly describe objective indicators that characterize an opioid overdose when asked. However, it is interesting to emphasize once again that participants described having no formal training in overdose response. Instead, participants learned about overdose assessment and response from observing other people respond to an overdose in the community or at a harm reduction service. Despite this, the assessments undertaken by participants were strikingly similar to (and often beyond the scope of) the education that is provided during an opioid overdose training course. Adding further layers of complexity, participants disclosed frequently being the sole responder to a person overdosing in the community, resulting in an intense feeling of responsibility and increased anxiety levels. In addition, participants reported they were also often under the influence of drugs themselves when responding to an overdose which caused increased stress and worry among participants, particularly surrounding their ability to respond rapidly and competently. Participants also voiced concerns about using the same drugs as the individual overdosing, and the potential for both of them to overdose at the same time, resulting in neither person being able to act as a responder.

It is important to revisit the fact that participants in the community do not have access to tools such as medical equipment to track trends in vital signs such as spO2, heart rate, and blood pressure over time. Typically, these tools are categorized as essential to ensure appropriate and accurate overdose response by healthcare workers and peers who work in harm reduction services such as SCS. Additionally, participants described carrying a limited number of naloxone doses with them, as it was not feasible to carry around more than a few doses at a time. This meant that participants had to ensure their overdose assessment was accurate and subsequently use naloxone with caution to ensure they conserved enough medication should another person overdose.

When participants were encouraged to reflect on how they can tell the difference between a person who is “heavy on the nod” (e.g., experiencing opioid intoxication with normal/clinically appropriate vital signs) and someone who is experiencing an overdose, many struggled to provide a response to this. Ultimately, they described a general feeling or intuition that comes with experience in responding to overdoses: “I just knew she was going to overdose” (P9). Another participant described being able to “see it in their eyes” (P16). This description is similar to what healthcare providers describe as clinical intuition.

Being in a constant state of hypervigilance was also commonly discussed when describing overdose assessment strategies. Participants emphasized the need for enacting persistent, skillful monitoring that was initiated before anyone used drugs to develop a baseline understanding of the behaviours of others. Monitoring may potentially continue for hours after using drugs depending on the type of drug being used, the tolerance of the person using drugs, as well as the unknown substances

added/cut into the unregulated substances purchased. One participant spoke about the importance of considering the different ways that people may overdose – depending on the person and the unregulated drug supply that day, sometimes it may be “45 seconds, or sometimes it takes a person 4-5 minutes to go under [overdose]… everybody is different, you know? So that’s something I have to think about too all the time” (P17). This participant was also able to clearly describe the complex questions and considerations they must keep in mind during periods of overdose assessment, contributing to this state of hypervigilance:

> I watch people constantly to make sure they’re not overdosing. But the ones that, like, when I walk in and they’re already overdosing – they’re harder. Because I don’t know, like, what did they take? When was it? How long have they been out? You know, all that (P17).

Sub-theme 1.2: Overdose Response

Descriptions of how individuals responded to drug overdoses dominated much of the space during interviews. Overall, participants described engaging in a highly complex decision-making process, which included constant re-assessment of the individual experiencing a drug overdose as well as the implementation of risk management strategies. Participants were eager to share their stories and recounted the steps they took to revive someone. Following overdose assessment as described in the previous sub-theme, descriptions of overdose response initially focused on the need to rapidly gain access to overdose reversal medication (naloxone): “I just immediately ran around and asked for someone to come with narcan” (P12), and “He dropped and then I nasal sprayed him” (P14). Typically, if participants did not have naloxone directly accessible, they opted to send someone else (when possible) to retrieve the medication

rather than doing this themselves to stay with and closely monitor the person experiencing an overdose.

Participants described their overdose response techniques often being informed by their own personal history of experiencing a drug overdose. Participants empathized with the embarrassment and shame associated with experiencing an overdose in front of a large group of people (particularly when this group included people who do not use drugs), as well as the excruciating pain of opioid withdrawal symptoms when an excessive amount of naloxone was used. Descriptions of opioid withdrawal symptoms included nausea and vomiting, muscle and bone pain, anxiety, irritability, restlessness, fatigue, and other flu-like symptoms (e.g., runny nose, sweating). These symptoms were typically categorized as severe or debilitating following the administration of naloxone.

Thus, an important caveat was noted by several participants when they used naloxone – naloxone must be titrated to ensure the overdose was reversed, but the individual did not wake up dope sick/experiencing opioid withdrawal symptoms: “The needle [injectable naloxone] is better because they don’t go through withdrawals as much. The nasal one gives major withdrawals” (P19). Another participant echoed this practice, stating “I gave him a little bit of an injection of narcan – I like microdosing” (P4). This will be discussed in further detail in the next sub-theme ‘*Expertise’*. Of note, while the concept of microdosing as it relates to substance use is most commonly associated with the drug buprenorphine/naloxone (e.g., using a microdosing schedule to initiate treatment and avoid precipitated withdrawal), in this instance, participants were referring to the provision of smaller doses of naloxone. For example, injectable naloxone

acquired through community pharmacies is often distributed in an ampule with a concentration of 0.4mg/mL. When microdosing, only a portion of the naloxone inside the ampule is administered to the person experiencing an overdose (e.g., injecting 0.5mL rather than the entire 1mL dose).

Performing CPR or rescue breathing was also a common intervention used. One participant described finding a person who had stopped breathing and needing to give "him mouth to mouth because he was dying" (P11) while they waited for harm reduction staff or emergency services to arrive and take over. Similarly, a participant discussed a situation when they woke up after using drugs with a friend and found their friend unresponsive: "I had to mouth to mouth her back to life – it wasn't working, wasn't working" (P16). While there was a sense of pride associated with saving lives, repeatedly stepping into the role of emergency responder created an uncertain and frightening landscape: "It was really scary and intense" (P14). One participant clearly described an instance that was reflective of this finding:

> We were inside a building and that's when there was more use of the liquid [injectable] naloxone, it wasn't the nose [nasal spray] ones. I was so scared, and I remember breaking the first vial of naloxone, because I didn't know how to use it properly, nobody showed me how to use it. So, I broke the first one, and thank god there was a second one. That brought him back, we didn't call an ambulance. But that was fucking scary. That was the first time I had gone through that (P20).

While responding to an overdose, participants also emphasized the need to consider other outside factors that may impact themselves or the person who is overdosing. As mentioned previously, many participants implemented risk management strategies when responding to an overdose. This was essential to ensure both their safety as the responder as well as the individual experiencing the overdose. Several participants described weighing the pros and cons of calling 911 given the

criminalization of PWUD. For example, one participant recounted a time that, while reviving a close friend, they contemplated the consequences of calling for emergency services: “After like, 2-3 minutes he came back [from his overdose] and I was like, oh my god, he’s not dead. But I asked myself, should I [have] call[ed] the police?” (P10). Of note, many participants associated calling 911 (or emergency services) with calling the police, due to their experience of police attending drug-related emergency situations. Thus, not only were participants saddled with the burden of managing a complex clinical emergency, but they were also forced to contemplate how they could best protect themselves and their community from the potential consequences of asking for help associated with the police.

Sub-theme 1.3: Expertise and Ingenuity

Most participants had lost count of the number of overdoses they had responded to in the community due to the overwhelming volume of occurrences: “I’ve had a lot of practice bringing people back… every day he [my friend] overdosed. Every single fucking day. And I saved him every day” (P17). Typically, participants estimated responding to drug overdoses in the community on a weekly or daily basis – however, responding to multiple overdoses in one day was not abnormal. In fact, seeing overdoses in the community became “a daily thing, you see it all the time, people overdosing” (P18).

Given these repeated exposures, a level of expertise regarding overdose response was developed among participants. As previously discussed, the importance of titrating naloxone was emphasized. One participant described a technique for microdosing nasal naloxone which they had personally developed over time:

> If their [the person experiencing an overdose] heart rate is coming back, then I won't even give them narcan, I'll just stay there. If they're way under [unconscious], you know they're gone, I'll spray the nose one [nasal spray naloxone] on my finger and stick it up their nose just because I know how sick you get when you come back. Most of the time that works (P17).

Another participant recounted similar titration techniques, but with injectable naloxone: "If you give them like a 0.1mg of an injectable, it'll bring them down to a level where they're normal again. But they're still high" (P4). Spacing doses was also referenced, along with the need for constant reassessment: "I just wait a few seconds [between naloxone doses], like 30 seconds. See if the colour is coming back and if they're responding. If not, give another one" (P14). While empathy regarding the experience of opioid withdrawal symptoms was described as a key reason for titrating naloxone doses, participants also engaged in this practice to assist in breaking the cycle of drug use (a more detailed description of this cycle will be provided in sub-theme '*Criminalization*'). When a person overdoses on opioids and is given an excessive amount of naloxone, they will experience opioid withdrawal symptoms. To relieve these uncomfortable symptoms, the person will seek out unregulated opioids, putting them at risk for overdose once again. Instead, when naloxone is appropriately titrated to restore breathing and maintain the high the individual is seeking, withdrawal symptoms can be minimized or eliminated.

Given the fact that participants do not have access to medical equipment or training that many healthcare providers and harm reduction workers may have in medicalized systems, different assessment and response techniques are required in the community: "I've actually become very good at it [overdose response]. I kind of made my own – it might sound kind of silly – but I made my own technique of bringing back

people when they're under" (P15). Thresholds for when backup assistance (e.g., emergency services) is needed are negotiated by the overdose responder, and once again rely on learned expertise, clinical intuition, risk management techniques, and an estimation of how severe an overdose is. One participant described their personal process: "If it's a really bad overdose, yes [I will call 911 for help]. But if it's not, then no. I can tell based on the way their skin looks, how they look, if they're coming back or not" (P14).

Additionally, participants reinforced the importance of maintaining a relaxed demeanour throughout the overdose response process: "I don't panic because panicking is probably one of the worst things that you can do. I just stay firm and consistent with what I'm doing" (P8). The ability to respond to a drug overdose in a calm manner is developed over time and may be associated with a responder's level of expertise as well as repeated exposures to successfully reversing overdoses in the past. The importance of staying calm was further echoed by another participant:

> I can stay calm. And I know that they're gonna be okay. Like, I have that faith that they're gonna be okay, that the drug [naloxone] is gonna work. It does get scary though once you start hitting high numbers [of naloxone doses]. So, if EMS is going to be called, after around 7-8 [naloxone doses] then I would call (P9).

Oftentimes, participants described responding to overdoses of their peers while they were also using substances alongside them. In these instances, many of them described implementing harm reduction strategies to try and minimize the potential harms that can arise from accessing a poisoned drug supply together. A commonly described strategy involved participants using their senses (e.g., smell, taste, vision) to try and decipher what was cut into the unregulated drugs they had acquired. While participants acknowledged this does not provide accurate or precise results, this harm

reduction behaviour arose as a consequence of communities lacking access to accurate and time-sensitive drug testing/checking. For example, participants spoke about tasting their drugs to decipher what was cut into them: “I can taste the fentanyl and how strong it is. Sometimes you get more of a sweeter taste rather than the bitter taste of fentanyl” (P12). Similarly, another participant also attempted to measure potency through taste, stating, “I try and taste it before I do it… that helps me out… [it is] very bitter when it’s strong, if not then it’s not that strong” (P14). One participant provided a detailed overview of their process for assessing unregulated drugs:

> I usually always look at the drug and always run an assessment of the drug. So, I look at it and see if it appears to be fentanyl. Then I’ll usually do a smell test, you can cook it, boil it through water and then there’s a smell back. And then I’ll just do a little drop taste test, and you can usually taste it. At that point then you know it’s fentanyl. Even the scent of it… very hard to describe. It would be like asking how a pill tastes. It’s hard to describe (P18).

When formal overdose response tools such as naloxone were unavailable, participants described finding accessible solutions for themselves in the community. This included smoking drugs rather than injecting them due to a belief that they would be less likely to overdose when drugs were ingested via inhalation. Participants also demonstrated ingenuity through their use of harm reduction strategies, such as efforts to avoid acquiring an infectious disease (e.g., HIV, Hepatitis C) from used drug equipment. One participant disclosed witnessing their peers using a cable they discovered on the outside of people’s homes “so they could use it as a stem – because they would rather risk whatever dirt was on the cord than on the used stem that they just found” (P1). Another participant implemented a safety plan with a person they had provided drugs to by asking them “to sing” (P15) while they were using drugs in their

bathroom to ensure they could hear if they went unconscious while they were in separate rooms.

The use of unconventional harm reduction strategies to reverse or avoid drug overdoses was commonly discussed, including the use of “cold water, ice cubes to snap them [the person experiencing an overdose] back” (P14) as physical stimuli to assist in reversing an overdose. One participant recounted a time when “they threw water on him to try and wake him up” (P3), while another explained they have had success with “put[ting] them in the bath or the shower… [using] a cold cloth” (P19). Similarly, a different participant said, “I’ve seen someone be thrown in the shower – I’ve been that person” (P5). While participants acknowledged that these methods are not recommended in many official overdose response training curricula as there is a risk of drowning or water aspiration to the individual who may be unconscious, they made a point of noting: “Well, that’s all we had!” (P1). This knowledge was passed down “mostly by rumour” (P15) through the community of PWUD. Overall, it was made clear that while there is a risk in using these methods, the risk of doing nothing is much greater.

Sub-theme 1.4: Saving Lives

There was an intense sense of responsibility for the welfare of others woven throughout discussions with participants. While participants discussed unquestionably assisting someone – regardless of whether they know them or not – who is experiencing an overdose, they often struggled to articulate why they felt this way, or when they began feeling this way. One participant stated, “That’s just my nature to do something – I used to go to the [name of SCS] to get a bag full of narcan” (P5). Further to this, participants described how concerns for oneself were often placed secondary to

the concerns of others: “I take care of everybody except myself” (P17). This participant went on to explain the feelings of guilt that can be associated with overdose response, particularly when the individual does not recover: “I usually blame it on myself. Like if I was there sooner, or if I had seen that happen, or if I knew how much [drugs] they took” (P17). Echoing this sentiment, a participant reinforced the severe consequences of not being able to care for someone in need:

> You feel like you let somebody down and it’s the worst feeling. And it’s not like, ‘Oh, I haven’t paid you your money, I’ll get it to you next week’. It’s… somebody is dead, and there is no way of changing that (P1).

This personal guilt was taken on and described by many participants – the guilt of not being able to save someone who is experiencing an overdose. This can be categorized as a sort of hidden guilt, as participants typically could not talk about their traumatic experiences as an overdose responder in the community with others, particularly when the person ended up dying or severely injured. A number of participants disclosed that completing this research interview was the first time they had spoken to anyone about their overdose response experiences. Participants also described ongoing survivor’s guilt, which resulted in them frequently contemplating why their peers did not survive while they did. Of note, participants typically did not initially blame structural violence or failed drug policies for the individual deaths they witnessed in the community unless prompted by the interviewer: “You did help somebody in the ways that you could – you were let down by a system that existed around you and put everyone at risk”. Once prompted, participants were able to acknowledge and recognize that they were not responsible for rising overdose deaths and an increasingly poisoned

unregulated drug supply and were simply existing in a system that was actively working against them.

In the end, the goal of participating in the labour of overdose response was the same for all participants – they sought to save lives. While this is an obvious conclusion to draw given the topic of this thesis, this outcome was extremely impactful to participants: “When someone overdoses, and they get brought back to life – I am so happy. Today is a beautiful day, why should we lose a person? Tomorrow is another day” (P3). Participants described feeling proud of having the skills and expertise to help people in their community. However, the experience of witnessing someone “dying in front of me” (P13) brought up different emotions for people: “But I watched them save his life and I started to cry… it was just amazing… that was something – everybody needs to see that” (P6), “I don’t want anyone to die, obviously. So, it’s scary” (P14). To participants, the need to act immediately was certain: “You didn’t have a choice, you either sink or swim” (P1).

Theme 2: Citizenship

The bonds and closeness within the community of PWUD were evident throughout this research process. Rules of social engagement were well established among PWUD and provided guidance as to how people interacted with one another. These internal rules constantly evolved based on outside forces (e.g., the state of the poisoned unregulated drug supply, access to harm reduction services, police presence in a community, etc.) and were learned and passed down over time by community members. Maintaining citizenship involved prioritizing values based on reciprocity, care, and empathy, as well as moral obligations to improve safety among PWUD. Bonnie

Burstow's *layers of trauma* framework (Figure 1) is reflective of the day-to-day complexities that marginalized communities are forced to endure and navigate, ranging from experiences at the personal level (e.g., participating in a life-threatening overdose response, being called a 'junkie' or an 'addict') to trauma-making structures (e.g., capitalism, patriarchy) and the dimension of the human condition (e.g., loss, the experience of "otherness", fight/flight response).

Sub-theme 2.1: Rules of Social Engagement

Participants described comprehensive group expectations and rules surrounding drug use. These expectations and rules were firmly rooted in a feeling of connection amongst PWUD based on their labels, resulting in a need for rapidly developing trust and rapport to support the safety of the community. While participants did discuss generally "stick[ing] with people that I know" (P12) when acquiring and using drugs, they also recognized that a lack of a relationship with another PWUD was not an excuse to not assist someone else in need. One participant recounted meeting someone in a shelter, and immediately being asked to oversee them while they used drugs: "he told me, 'If I overdose, don't let me die.' I didn't know the guy" (P10). One participant described a situation where they set aside their personal feelings to assist a peer:

> We were all getting high, and a guy started overdosing – I don't like him. Like I *really* couldn't stand the guy, but I ended up giving him mouth-to-mouth. I couldn't even stand him, and it was kind of shocking (P11).

Overall, status as a PWUD meant that the group expectations and rules continued across the lifespan, whether you were currently using drugs or not.

Appropriate social engagement was taught through demonstration and exposure over time, particularly when discussing overdoses. Participants spoke about learning drug use and overdose response etiquette through situations that arose in the community given how frequently they were "around it [overdoses] and seeing it" (P14). In addition to learning through situational exposures, this also included expectations that were "passed onto me by a friend" (P13), such as safety measures ("you don't do this stuff [unregulated drugs] alone" [P5]), or technical skills that were required for using drugs and responding to drug overdoses: "One of my friends showed me how to use it [naloxone]" (P8).

These rules did not exclude community members such as drug dealers. Although drug dealers are often villainized in society, low-level dealers are often PWUD themselves: "Even people that might sell drugs, a lot of them are only selling drugs to support their habit" (P2). Splitting, sharing, and selling are well-known safeguards set among PWUD to improve safety for the community. Indeed, there was a level of safety described by several participants when they were able to purchase drugs from a dealer they knew well. One participant recounted how a dealer they were associated with attempted to make their supply of unregulated drugs safer:

> I was with a drug dealer who sold a lot of drugs, and he would buff it down because it was too potent. He didn't want to kill anybody. He was a decent drug dealer, worried about his clients. He only sold a certain people. He never pushed the purple [unregulated fentanyl] on anybody (P20).

Another participant had first-hand experience dealing drugs and described how they would implement different methods to ensure the safety of their clientele: "Every time he hit me up [for drugs] I'd watch him for the first 15 to 25 minutes… [then one

time] I found him unresponsive. So, I narcanned them a few times and I called the ambulance" (P5).

Sub-theme 2.2: Group Belonging and Moral Duty

Given these shared expectations and experiences, a sense of group belonging developed over time for participants. This led to group membership which included specific criteria that must be met to be eligible. Loosely, these criteria included identifying oneself as a person who uses drugs or a person with lived experience. One participant explained:

> We wouldn't put ourselves at risk by telling anybody else. The only reason that we would ever let people know is if they used drugs too… if people weren't using [drugs], you would just not tell them [that you used drugs] – you would just avoid them because they're just 'normal' people" (P1).

There were several reasons for not exposing oneself as a PWUD to people outside of the community of PWUD. However, the most cited reason was to avoid the trauma and stigma that was often associated with being labelled as a PWUD. This participant went on to explain: "The community cares more within itself than it does for anyone else who might help them" (P1).

With regards to overdose response in particular, a sense of belonging and closeness can be attributed to assisting someone who is unwell: "I find that some people I get closer with them [when I help them during an overdose] … our friendship becomes stronger" (P8). Responding to an overdose of someone – whether you know them or not – can encourage bonding and friendship through the sharing of a traumatic experience together. One participant recounted a time they helped someone they found experiencing an overdose on a sidewalk and unknowingly spoke with them later in the day: "I didn't even realize it was the guy [I had saved. When I did realize] … I go 'did

you know I saved your life earlier?' and he's like 'Really? That was you? Wow!'. And we're still friends" (P11).

As has been discussed, citizenship as a PWUD is associated with many group rules and expectations. Participants spoke about the moral duty and obligation of assisting someone when they are experiencing an overdose, even when they feel immense pressure or stress in doing so: "You have to try and do something, you know? But it was scary for sure… I couldn't let somebody die" (P14). When asked if there would be a time that they could think of when they would not help someone, one participant unequivocally stated "No, never" (P19) without hesitation. Overall, it can be understood that helping someone was not optional – there was a moral obligation associated with ensuring this person survived: "[If someone overdoses] you're kind of stuck with them then. You can't leave them" (P6).

Participants did speak about the difficulty of balancing this moral duty with their status as a criminalized person. This will be explored in detail in future sections; however, it is important to note here that while participants did acknowledge the need to protect themselves, the requirement of responding to an overdose remained: "You shouldn't let someone die, just walk beside them and keep going. Whether you're a user or not" (P14). Instead, mitigating factors to protect PWUD were often implemented, such as calling for emergency services during an overdose while also leaving the premises to avoid interactions with law enforcement: "I waited until they got there, like I saw them [emergency services] drive up – then I knew he was okay" (P11). Balancing the moral duty of helping others while also maintaining personal safety was challenging, and often resulted in anxiety-inducing situations.

Sub-theme 2.3: Stigma and Shame

All participants disclosed numerous experiences of stigma and shame given their designation as a PWUD. There was a general understanding that "[society sees PWUD as a] waste of space. Wasted cause" (P20). Finding resources for support was "really difficult to look into" (P1) as a result of this stigma – one participant recounted overhearing family members complaining about PWUD, and the helplessness that was associated with this:

> When you see that [family members are complaining about PWUD] and you're a participant in that group, well then, I can't go to my family for help. I can't go to the police for help. I clearly can't go to my professional work industry for help. What do I do? (P1).

Participants described a sense of powerlessness – they became stuck in a dangerous, reinforced cycle of high-risk drug use, wherein they had no choice but to access the toxic unregulated drug supply, but also had to hide this part of their life from anyone outside of the community of PWUD. This resulted in "doing things in shady places" (P1), away from others, further worsening the risk of overdose and drug poisoning. Overall, they described the impact of stigma as intense, and encompassing "criminalization, marginalization – all those 'ization' words" (P4).

Participants described being repeatedly denied access to the things they need to survive. Even if resources are technically available – such as free condoms at a sexual health clinic, or needles and alcohol swabs at a pharmacy – often the repeated experience of marginalization and judgement when attempting to access these resources discouraged participants from engaging further: "Whether it's gear, whether it's needles, whether it's condoms, sometimes you'd just rather not [face the judgement]. So, you try to think of ways to go around it, which is ridiculous" (P1). This

resulted in target populations not accessing services and resources that were designed and implemented for them – the cost of judgement was too high for participants: “I remember the stigma was so bad that you didn’t go and ask for condoms because if you did, you were one of *those* people” (P1).

Participants explored the competing demands of attempting to keep oneself safe, while also needing to remain hidden from people outside of the community of PWUD. This caused difficulty in finding safe spaces throughout the city to use drugs and respond to overdoses. A solution provided by one participant was to use drugs inside a building stairwell with a friend to avoid frostbite. They brought naloxone with them and took turns using drugs to ensure the other person was ready to respond to an overdose should that occur. When they were asked why they would choose a stairwell, the focus was to remain hidden: “A lot of people use the elevator. So, in the staircase, no one is going to come up and down” (P10).

There was a recognition that outside of harm reduction services, most services available to PWUD focus on abstinence. This once again created barriers to accessing care and support for overdose response, as the expectation was that people should not be using drugs. A participant reflected, “Some people may never quit [drugs], but it doesn’t mean that they don’t deserve proper healthcare. They still have the right to life like everyone else (P2). Participants felt as though their drug use was extremely misunderstood: “The general public… they don’t see it [addiction] as a disease, they don’t understand the addiction process” (P20). This participant also spoke about wishing the public understood that drug use can impact anyone:

> Most drug addicts down here, we all have lived normal lives. We’ve all had houses and jobs and kids. The addiction just took over for whatever reason. I

> used to be the one driving by this place [the shelter] watching people at the front of the building, and now it turned round so fast… It can happen overnight. I didn't think I'd ever be living down here, staying down here, ever (P20).

Sub-theme 2.4: Closeness and Empathy

Participants described having intensely close relationships with other PWUD. This is not surprising given the level of trust they must place in one another to survive, as well as ongoing participation in the intimate act of using unregulated drugs with one another. For example, participants described being acquainted with one another's family members ("I know his parents" [P10]) and often referred to one another as family. As a result of these close relationships, participants characterized a heightened fear when responding to overdoses. One participant described the overwhelming sense of dread associated with finding a close peer unconscious: "Someone I know well… I was scared for him. Especially after a couple narcans, he still didn't come around. It had become more serious than what I thought it initially was" (P12).

Continually being exposed to life-and-death situations with people you have developed a relationship with is burdensome – one participant recounted responding to an overdose of a close friend who had relapsed after years of abstinence from drugs: "It was hard on me, emotionally and mentally. I just remember just feeling exhausted in every sense of the word" (P2). Another participant spoke about finding their best friend dead as a result of a drug overdose in their kitchen, and the ongoing impacts this traumatic event has on their life:

> I cried. I found my very good friend's body. Overdosed in the kitchen… I'm doing CPR and I'm asking someone to change, rotate through… I was so taken aback I just started bawling. It makes me want to cry now; it was so sick (P4).

Citizenship as a PWUD ultimately resulted in acquiring an increased ability to empathize with others, particularly when they are experiencing an overdose. Empathy is closely related to the previously discussed sub-theme of '*Expertise and Ingenuity*' – participants described the importance of caring for someone in the ways they would want to be cared for during an overdose: "I worry about how sick [withdrawal symptoms] they're going to feel. How shitty they're going to feel afterwards" (P13). Because of this, participants described overdose response as much more complex than simply reversing the overdose ("when someone goes and overdoses, you don't want to take their high away" [P7]) – instead, an emphasis on safety and avoidance of withdrawal symptoms should be prioritized. As previously discussed, one participant described a vicious cycle that can occur when inappropriately providing naloxone doses to an individual:

> And then when you come out of it [the overdose], you can go back into withdrawals afterwards, right? So, then they use [drugs] again because they're dope sick, and then they can go back under [overdose], so, they're fucked (P19).

In this sense, participants were able to describe the larger picture that contextualizes using drugs and saving lives. Their own personal experiences of drug withdrawal provided them with a heightened empathy for others in the same situation: "it makes me feel better if someone else feels better" (P17). Once again, there was clear expertise that had been developed alongside this empathy:

> I do carry nasal [naloxone] kits as a last resort or in extreme overdoses, like 'this person is borderline going to die'. That's when I'll probably use nasal. I prefer the IM because you can regulate how much you give that person… then they won't be so sick when they come out (P15).

Nearly all participants recounted personal overdose experiences in the community: "I've overdosed a few times… first time was on the street" (P12), and "Most of the time, I don't really know when I drop or go out [overdose]. I just wake up with a

bunch of people around me" (P8). This further contributes to the sense of empathy described in interviews, as well as pride in being able to help someone as they were: "[It felt] good [to give someone else naloxone], because when I get narcan'd and people are around, it's lucky you know?" (P14).

Sub-theme 2.5: Way of Life (Normalizing)

Over time, participants described that overdose assessment and response became normalized as an expected part of life for PWUD: "Now it's like a daily thing to walk by a person and see if they're okay. Downtown, anyways. I do it eight to ten times it every day" (P6). This contributed greatly to participants developing the aforementioned intuition regarding whether or not someone is experiencing an overdose – "you just know" (P18). Given the state of the toxic unregulated drug supply, the question for participants was not *if* someone they knew would overdose, but *when* they would. This impending doom further contributes to the uncertain landscape of overdose response in the community. One participant compared their experiences of responding to an overdose to the daily chores most people mindlessly participate in day to day: "It's just like, okay, you're going under [overdosing], I'll go grab the shit and save your life. You know? It's just like waking up and emptying the dishwasher. It's pretty fucked up" (P17). While this participant recognized that their overdose response experiences would be considered a rare event amongst most people outside of their community, it simply became a way of life they were now accustomed to.

Theme 3: Trauma

Trauma was a central theme discussed for two reasons – first, drug use is often a coping mechanism that many participants used to manage traumatic memories and associated symptoms of trauma they experience throughout their lives:

> This is not true for every person that uses drugs, but it is for a lot of people who use drugs. Many of them have been traumatized, have experienced horrible things. I know that I used drugs to numb those feelings – whether it was hopelessness or inadequacy (P2).

While drug use can be a helpful tool to survive trauma and has a different meaning for each person: “For me, what makes me do drugs is trauma. Someone else it could be anger, someone else it could be mental health” [P10]. Participants also spoke about how the poisoned unregulated drug supply results in trauma being replicated over time. PWUD are subjugated to guessing what it is in the substances they are using and are forced to risk their lives each time they use drugs. Thus, trauma in this thesis is also directly related to the repeated and unpredictable experience of overdose response – “It’s [the unregulated drug supply] like a monster that just feeds itself” (P1).

Sub-theme 3.1: Emotional Detachment

Similar to the overarching theme of trauma, emotional detachment as a sub-theme has several meanings. Once again, participants discussed using drugs as a coping mechanism to place distance between oneself and painful experiences: “You try to escape those memories through drugs” (P1). However, with regard to overdose response specifically, emotional detachment was seen as an essential strategy to compartmentalize overwhelming emotions and remain calm in a stressful situation:

> [Panicking and worrying about someone dying] is not the way to go about things, because if you did do that, then you probably would be carrying too much stress… too emotionally involved or emotionally attached to the [overdose] event

> and the situation. It's important that you keep somewhat of a distance from what's happening (P13).

Being emotionally detached was seen as a necessary reaction to overdose response – taking the time to emotionally process these experiences had the potential to be painful. One participant spoke about responding to so many overdoses over the years that "At this point, it's very easy [to respond to overdoses] … I've seen it so many times. Been through so many experiences" (P15). Another participant stated: "I'm pretty numb to a lot of things that go on around me now. Numbed by the trauma" (P9). A recognition that overdose was simply "part of this kind of life" (P17) continued to emerge and contributed to individuals describing an ability to turn emotions on and off: "I have an emotional attachment to people… but if someone has an overdose, it's just automatic that I take over and I do what I have to do. When they're awake I walk away like it's nothing" (P17). The avoidance of emotions and emotional memories were present through interviews as a protective mechanism – for example, one participant actively avoided speaking about emotions when recounting reversing an overdose of a friend, placing boundaries around this topic with the researcher: "I told her what happened, and she got really emotional and just – I don't even want to go into that" (P18).

Sub-theme 3.2: Fear and Stress

While emotional detachment was a learned behaviour/skill, participants also recounted certain instances where they experienced intense fear: "Stressed, scared, anxious. And sad" (P14). This was often associated with responding to overdoses for the first time: "I remember panicking because I had never dealt with that [an overdose] before" (P1), "the first time [I responded to an overdose], of course I was scared – I was

talking to the guy, and he was not responding" (P10). Fear was also associated with concerns for one's own personal safety, particularly when concerns arose surrounding police and the criminalization of PWUD: "I can remember being worried about getting in trouble [with the police]" (P13). Despite *Good Samaritan* laws in Canada, participants expressed fear when contemplating whether or not they can call for help from emergency services:

> [People are afraid] of whether or not they are going to get into trouble. There isn't very much reassurance on whether or not – if you die in the presence of me, and you bought the shit from me, and we know you bought the shit. But we don't tell the cops that (P16).

Ultimately, this fear resulted in participants not reaching out for help or support when they required it. Indeed, individuals responding to overdoses in the community disclosed feeling heightened internal and external pressure to respond appropriately and effectively each time they encountered an overdose. Participants described an understanding that often, they were the only ones who could help their peers and must act quickly: "I was responsible… everyone else didn't know what to do" (P14). This sense of ownership over reviving people was only further reinforced by the vast lack of services and support in the community for PWUD:

> I think there should be more support for people who readily respond to it [overdoses]. I know there were times where I felt almost like there was a pressure on me to go around and respond to people overdosing. I remember I counted in one week it was like 6 responses, and I had ran out of narcan and I said 'I can't do it anymore'. I'm just one person… I needed sleep; I couldn't manage (P18).

This was not a story unique to only this participant – another individual recounted responding to "five [overdoses] in one week at my house" (P9) and needing to triage their friends based on the severity of their medical emergency: "I had to choose which

one was more important" (P9). Participants were yet again left with feelings of guilt and helplessness in the never-ending number of overdoses they needed to respond to.

Sub-theme 3.3: Repeated Loss and Grief

While participants spoke most frequently about responding to overdoses they successfully reversed, they also experienced a constant barrage of people they knew dying: "I saved 37 people and I've lost 36 people in the 5 years I've been in Ottawa" (P17), "my best friend just died" (P4). Most participants disclosed being aware of countless deaths within their community and close friends, particularly since 2016 when the unregulated drug supply shifted from heroin to fentanyl and other dangerous additives: "I have had a lot of people pass away in my life" (P16). Of the people who are dying as a result of an overdose in the community, participants generally disclosed that in their experience, people most often die when they are using drugs by themselves in a private area or home ("he did drugs by himself" [P5]), away from other PWUD who can respond and assist: "I've never actually seen anyone die, they always come out of it. But I do know of many people who have died because of overdoses in the community" (P12). The regularity of this outcome results in an expectation that friends and peers will often end up dead – participants are simply waiting to hear who the next person to overdose and die is. Once again, it is not a question of *if* people will overdose and die, but *when* they will.

Sub-theme 3.4: Lack of Safety

Given their repeated exposure to traumatizing experiences, participants disclosed having a limited ability to access services that provide a sense of safety for themselves or their peers. Indeed, there are very few avenues that exist for PWUD to

continue to use drugs in the ways they may want to outside of medicalized settings. For example, many OAT programs demand that program participants decrease (or cease) their use of unregulated drugs to engage in the program. Similarly, other programs available to PWUD such as Narcotics Anonymous, detox, and rehabilitation centres are often rooted in an abstinence-based framework. While there are harm reduction services available to allow PWUD to continue to use drugs, they are limited in their scope and scale. For example, safer supply programs offer pharmaceutical medication (often opioids and/or stimulants) to decrease harms associated with accessing the poisoned unregulated drug supply, such as the risk of overdose, participation in criminalized behaviours, and the associated trauma/mental health concerns. While these programs are based on a harm reduction approach rather than abstinence, they are extremely difficult to access as there are a limited number of programs across Canada.

In the absence of being able to access a safer supply of medication, participants described a recognition that each time unregulated drugs are consumed “it’s a chance that you take knowing that you could be the next one [to overdose and die]” (P20). Learning about the harms coming to other PWUD in their community reinforced the experience of vicarious trauma among participants: “[When I hear about others dying from an overdose], it causes worry in myself” (P12), “emotionally I feel – what if I were in their position?” (P8).

A lack of safety was also found within the poisoned toxic unregulated drug supply that contributed to most overdoses in the community. Participants recounted that they “[worry about what is in my drugs] all the time. Especially these days” (P11). From one

day to the next, participants had no way of knowing what was in the drugs they or their peers were using: “Now there’s random stuff that you get in [fentanyl], it’s a risky thing. You don’t know what’s in it, what it’s mixed with, how strong it is. It’s very potent” (P14). There was a sense of helplessness, as participants did not have appropriate avenues for drug testing to better understand what is in the drugs they are consuming: “I worry about what’s in it [unregulated drugs]. I’d like to know what’s in it, what they make with it” (P19). The constantly changing drug supply had a direct impact on overdose response, as it added a layer of uncertainty for participants: “I’ve heard of people taking like 18 shots of naloxone to breathe. I can’t believe we have to carry around 20 vials in our purse” (P20). Participants described a delineation between the time “before” fentanyl and after as it related to overdose response in the community:

> In 2016 fentanyl really hit the streets heavy, hard here. It was called caramel. But it had carfentanil in it, fentanyl analogues. Made people seize up and go blue. Go blue so fast, so quick, I couldn’t understand it (P16).

Sub-theme 3.5: Criminalization

The sub-theme of the criminalization of PWUD was present throughout all interviews, even if it was not discussed explicitly. The cycle of dangerous drug use was greatly impacted and reinforced by the label of criminal. For example, participants spoke about being forced to access the toxic unregulated drug supply due to uncontrolled drug withdrawal symptoms and intense cravings, as well as having no access to a safe, regulated supply of drugs. To manage their withdrawals and cravings, they needed to purchase and use unregulated drugs, which placed them within the category of criminal per current laws. To avoid criminal penalties, participants must look for spaces to use drugs that are away from law enforcement or people who may alert law enforcement to

their drug use. This results in unregulated drug use often happening in areas away from the public, hidden from people outside of the community of PWUD. Should someone then overdose on an unregulated drug they are consuming, they have purposefully hidden themselves from others, placing them at increased risk of morbidity and mortality if no one is available to respond to or aware of their overdose. This cycle then repeats with participants once again experiencing intense drug withdrawals and cravings.

This cycle essentially forces the individual into a scenario where they are “doing an illegal activity within an illegal activity” (P1), resulting in there being “nowhere to reach out, no safety” (P1). PWUD feels as though they are “all targets” (P17) and ultimately “[people don’t call for help] because they don’t want to talk to them [police] and they’re scared of getting arrested” (P8). The need for changes at a policy level was acknowledged by participants to begin shifting the label of criminal; however, it was also recognized that “we’re so far in from a hundred years of the war on drugs. You know, it's hard to back out of that. I think it’s going to take a long time” (P4).

Theme 4: Current Services and Supports

Participants were asked to discuss the current services and support that they were aware existed for overdose response in the community. Individuals largely focused on the deficits of the current systems in place, including limited resources for PWUD, barriers to care, and concerns related to legislation. Participants also discussed the activation of emergency services when more support was required during overdose response, with a focus on past interactions with paramedics and police.

Sub-theme 4.1: Limited Resources

Resources for PWUD are extremely limited, not dispersed equitably geographically, and often difficult to access. Participants discussed that their role as an overdose responder in the community would not be necessary should resources and services be appropriately implemented for PWUD: “Access to services is the biggest issue” (P1). In cities that are fortunate enough to have harm reduction and other substance use-related resources available, often they are not available during “non-regular working hours” (P1). This is counterintuitive, as drug use does not stop on evenings, weekends, and holidays: “We need more 24/7 SCSs” (P2). Rural areas are also underserved, with services frequently being concentrated in urban/downtown settings. One participant explained:

> Another thing that makes people not come here [gestures to SCS] is when you’re dope sick, and you’ve found your drug, you want to do it like, right now *right now*. When you find it in, let’s say somewhere like [name of another part of the city], to come here is another problem, you know? You just find a place, boom [gestures to arm with injecting motion] (P10).

Ultimately, this results in individuals using drugs outside of safe spaces where people can support them should they overdose or experience other consequences related to their drug use (e.g., missed injection, psychosis, etc.). There exist further inequities for people who smoke/inhale drugs: “There’s nowhere to go [to smoke/inhale drugs] like crack” (P5).

Sub-theme 4.2: Barriers to Care

Participants reported that their substance use was often cited as the reason they could not access care, even when the care they sought was directly related to their substance use. It was generally understood that this was commonly used as an excuse

to exclude PWUD from services, with one participant recounting a time that the mental health concerns of their peer were dismissed as “just the alcohol” (P1) by hospital staff. This explanation of individuals simply needing to stop using drugs to improve their mental health is counterintuitive, and extremely harmful to PWUD, ultimately creating insurmountable barriers to care:

> My favourite is: to get in [to the healthcare facility] you have to stop doing drugs. It’s a huge insult. ‘You can’t come in here unless you’re sober’. How do you expect them to turn around and become sober if they don’t have any help? (P1).

Participants recounted overhearing healthcare providers complaining about their drug use within a hospital setting, reinforcing their hesitancy in accessing care and fuelling concerns of the potential to be mistreated by healthcare providers. Further, waitlists for support were often lengthy, making them inaccessible: “To see a psychiatrist with [name of hospital], you could be waiting up to 18 months. And in that amount of time, the person that’s waiting to see somebody could end up dying” (P2). Finally, participants understood when they called emergency services for help during an overdose in the community, police would also be dispatched: “If you told them [you were using naloxone] then they would bring first responders and police. And I didn’t want that because then it blew up” (P15).

Sub-theme 4.3: Laws

Participants discussed that current legislation was inadequate to protect them from law enforcement when accessing overdose support. Participants expressed having a “major fear of getting arrested” (P1) despite *Good Samaritan* laws. Forcing PWUD to choose between saving a life and their freedom was untenable:

> I think some laws should be put on hold… When we're talking about saving a *human life*, I think that the law comes in second place. Whether that person is responsible for the death of others [due to sharing/selling drugs] or not is not something that is to be considered. It's just the right thing to do. The fact that there might be bad consequences makes me second guess my actions. At least, with the police (P13).

Participants disclosed first-hand experiences where the *Good Samaritan* laws did not protect them during a drug overdose: "They're [police] going to arrest you or they're going to search you and bring you to jail because you're in possession of drugs" (P19). One participant recounted a time "when I had warrants… I was going to jail" (P6). Currently, the *Good Samaritan* laws define warrants as a more serious offence, thus negating protection from law enforcement and putting PWUD at risk for arrest. Another participant spoke about when they were arrested after calling for help for a friend who overdosed at home:

> Even though they have that clause in the law [*Good Samaritan Drug Overdose Act*], they [police] don't follow it… they tried to charge me with possession because I called 911 for someone who was dying. They find loopholes, or you know, they break their own law (P17).

Participants also recognized that the laws do not reflect the current culture of drug use among PWUD, wherein the law considers selling and sharing drugs to be harmful rather than a form of caring for others. There was a sense of guilt among participants when the drugs they shared with others resulted in overdose: "he bought the drugs from me [and overdosed], I felt responsible" (P16). This added another layer of consideration when calling for help, further adding to the confusing landscape of overdose response: "I'm going to jail… because I was the one who supplied her. [It was] just a worry on my mind" (P15).

Sub-theme 4.4: Emergency Services

When calling 911 participants viewed paramedics as a safe group of individuals to access care from: “One of the ambulance guys was pretty cool… they don’t give a shit about anything else other than the safety of the person overdosing” (P15). Participants appreciated that most interactions they had with paramedics focused simply on the person who was in medical distress/overdosing, rather than the drug use that was occurring just prior:

> Paramedics are okay… they’re not asking who has what or stuff like that. They just want to help the person who’s in need of help and that’s pretty much it. They’re not questioning everybody else around the place (P19).

Above all else, police and law enforcement were most frequently discussed by participants in the context of community support and barriers to overdose response. Participants spoke extensively about having a negative relationship with the police. The police were unable to offer a sense of safety to participants: “There was nowhere to reach out, no safety – I couldn’t call the cops” (P1). It was understood by PWUD that “when that [police] car comes, you gotta take off” (P10). Participants spoke about how their trust and respect for police were eroded over time as a direct result of negative experiences they have had with the police: “Personally, I’ve had some really horrible dealings with [name of police organization]. So, I don’t trust the police. Not one bit” (P2) as well as experiences their peers have had: “I’m pretty comfortable talking to most people, but they’re [the police] probably my least favourite… [because of my own] experiences and stories I’ve heard [from my peers]” (P11).

With regards to overdose response in the community, participants unequivocally recounted the presence of police increasing stress when they attended emergency

services calls alongside paramedics: “[When I was responding to an overdose] the police first showed up, then the ambulance showed up… I was terrified” (P15). This concern of police showing up to the scene first (before paramedics or firefighters) was echoed by another participant: “The cops came first – fuckers. They said they were the paramedics, and they came in, pretty much dropped him [my friend that was overdosing] on his head” (P17). Ultimately, in the midst of responding to an overdose – an event which participants have stated is intrinsically stressful to manage as a responder – police increase anxiety and distress, resulting in participants hesitating to call for assistance: “There was one [overdose] where I had to call the police. I didn’t know if I should call the police because there were drugs there, and there were people there who had drugs and stuff like that. So, it kind of freaked me out” (P19).

Fear of being arrested by the police during an overdose was very common amongst participants despite the *Good Samaritan Drug Overdose Act*: “[People don’t call the police] because they don’t want to talk to them, and they’re scared of getting arrested” (P8). Individuals sought to protect their own safety, but also the safety of the person experiencing an overdose, as they “wouldn’t want to be responsible for them ending up in jail” (P13). One participant described a time when they called 911 for assistance for a peer in medical distress: “As I was walking in, the person [overdosing] was on the ground and they weren’t responding, they weren’t moving, they weren’t breathing. The cops showed up, they arrested a couple people” (P19). In this instance, the police clearly demonstrated a focus on arresting people rather than simply offering assistance during a medical emergency.

For individuals with warrants – or other exceptions as listed under the *Good Samaritan* law – they had limited options in overdose response, and many of them felt forced to leave the scene once 911 was called: “I had warrants... I knew the police were going to come and I didn’t want to be there when it happened” (P6). Responding to the initial overdose, and then leaving to wait in an area hidden from the police was a common story amongst participants. Whether or not participants sold or shared the drugs that the individual overdosed on, participants recounted a fear of being blamed for the overdose by police: “Maybe [the police will say] I killed him, I don’t know, you never know” (P10). This sentiment was echoed by another participant: “[People are scared of] being arrested, being watched, a person dying and them getting in trouble for it” (P9).

Outside of overdose response, negative interactions with the police persisted. Participants described an overall theme of disrespect from police towards PWUD: “They show up, and they laugh at us, and they make fun of us. Those officers should not be there… I think it’s a cultural thing [within the police organization]” (P13). Power imbalances and the “authority they have against” (P16) PWUD greatly influenced interactions between the two groups. One participant summarized it as: “It’s all about power. It’s not about saving lives… we police the police” (P17). Ultimately, there was an understanding among participants that simply their citizenship as a PWUD was enough to create tension between them and the police: “Most of my experiences were negative with the police. A lot of it seems to be who I associate with. Even if I have nothing to do with the scenario or situation” (P17).

When discussing why this tension might exist, the criminalization of drug use was the most obvious source. However, participants also spoke about feeling as though the

police misunderstood their addictions or substance use. This resulted in police using their authority in ways that worsened the lives of PWUD:

> I don't trust them [the police] because they're sneaky. They try to use certain aspects of our lifestyle so that they can "help us" – but in the end all that they do is rob us of our money and beat us up. What, you [think you] saved me from my five-year fentanyl addiction because you took all my dope? Great (P16).

Ultimately, regardless of personal feelings towards the police, a clear pattern emerged through interviews – the presence of police in situations involving overdose response prevented participants from calling for emergency services when they felt they needed more support, placing the safety of the victim in danger. Indeed, "cops shouldn't be responding [to overdoses] … just paramedics" (P9).

Theme 5: Envisioning the Future

Along with current supports, services, and potential barriers, participants were explicitly asked about how they would envision an optimal future to support their role as an overdose responder in the community. Participants provided several solutions they hoped to see implemented, with a specific focus on the prevention of overdoses (through drug testing and safer supply), the promotion of community supports (such as improved awareness of resources and assistance with monitoring), and better protection for PWUD (including changes to legislation).

Sub-theme 5.1: Drug Testing

Participants emphasized a desire to have a better understanding of the drugs they were using given the state of the toxic unregulated supply: "Drug testing kits, we need better access" (P2). The purpose of drug testing was twofold – to assist individuals prior to consuming drugs as well as afterwards. With regards to the former, being able to assess the potency of substances was flagged as an important factor: "Well, [It would

be helpful to have drug testing] to know how potent this stuff is" (P5). Beyond potency, participants also wanted drug testing to decipher which types of substances were in their drugs beyond the drug they were seeking: "If they're a stimulant user, they need to test their personal drugs for, traces of fentanyl or whatever it is" (P2). While fentanyl test strips may assist with this, a broader testing system is required to keep up with the everchanging types of drugs found in the unregulated supply and provide a more nuanced breakdown of drug types and proportions in a sample. The second purpose of drug testing discussed among participants was to test substances after they have been consumed:

> I did this hit the other day and oh my god, I was like, I don't know what's going on with me, but I have never felt this feeling before. And it was supposed to be crack… it was just really weird because I've never felt that before. I don't like this feeling. I would like to know what's in that (P11).

Participants sought validation for the experiences and side effects they endured when using unregulated substances, even if it did not change their drug use in the moment.

For drug testing to be useful, participants emphasized a need for easy, low-barrier access. When they were asked about potential barriers to drug testing, one participant emphasized the need for rapid results and expressed a concern for drug testing that would cause large delays in their ability to use the drug: "You already just waited for the drugs, then you'd need to go there [for drug testing] and wait for it" (P11). The need for quick turnaround times is particularly true if the goal of testing is to engage with the PWUD prior to them consuming their substances so they can titrate their doses – one participant noted that gaining knowledge about the potency of the drug would help them better estimate how might to use: "If it's good shit [drugs] then you just need a tiny little bit" (P5). Further, participants were concerned that "maybe I'd lose some"

(P11) of the drugs that they just worked hard to acquire – drug testing cannot require large amounts of the substance to be accurate.

Sub-theme 5.2: Safer/Regulated Supply

Participants were familiar with safer supply initiatives as several programs exist in Ottawa, Canada: “I believe it [safer supply] should be readily available, and it is now” (P18). While several participants spoke highly of the program (“it’s [safer supply] nothing but helpful, for me” [P11]), other participants disclosed concerns with the limitations that often exist within these programs. Primarily, participants were concerned about how they “can’t go about getting my cravings satisfied” (P20) with the types of medication being prescribed (often hydromorphone is prescribed for people who use fentanyl) and the maximum prescribed daily doses (typically a maximum of hydomorphone 240mg each day). One participant noted that their peers complained about prescriptions not managing their cravings and withdrawals given the “level of high [from using fentanyl]” (P2) they were used to.

Participants also discussed the importance of having more drug options for individuals who may have different preferences, such as prescription cocaine or fentanyl: “They should prescribe cocaine because at least the person will know what they’re taking, it’s going to be pure and clean and it’s not going to be full of shit” (P19). One participant noted they believed the community needs “injectable fentanyl for the people… we’re the capital of Canada for christ’s sake, we should be leading the fight for this” (P4). Beyond a medicalized model based on prescriptions, participants were hopeful that “legaliz[ing] fentanyl or heroin” (P12) may eventually occur to regulate these drugs in a similar way to alcohol and cannabis.

Sub-theme 5.3: Resource Awareness

While participants expressed a desire for more resources in the community, they also spoke about how many current supports and resources for PWUD are underutilized: “We need more awareness of those things [harm reduction supports in the community]” (P11). For example, one participant was unaware of overdose prevention phone lines that exist to support people using in the community: “I’ve never heard of that!” (P12). This demonstrates that current resources may not be reaching their target population. Participants also discussed the “lack of education based on experience… from people in the community” (P18) resulting in the burden of care being placed back on PWUD. One participant disclosed they “wish most people had narcan and knew what to do” (P14). Overall, participants clearly indicated a need for developing novel resources for overdose response in the community while also focusing on increasing awareness of current services and supports.

Sub-theme 5.4: Monitoring and Response

Safety nets such as drug use and overdose monitoring services as well as changes to the personnel (e.g., paramedics, police) responding to overdoses in the community were suggested. Currently, as discussed, monitoring for overdoses outside of medical settings is a task predominantly completed by PWUD. Participants suggested different models, such as the implementation of technology which can monitor vital signs while someone is using drugs: “I think the trial that they were doing recently with the machines on the finger for people that use [drugs] at home alone is a good thing. Then it would contact the paramedics” (P12). Having improved access to overdose response equipment was also suggested:

> A lot of people know motels are used for partying. Motels should have these things available for public use… Like nasal [naloxone], injections, stuff like that. Signs that show the public that there are these things available. That if you need them, please ask whoever needs to be asked (P15).

Further, participants spoke about the potential for alterations to the groups that currently respond to overdoses in the community when emergency services are contacted, with one participant suggesting "to have a phone number that I could call you guys [harm reduction peers and nurses] instead of having to call the police first. That way you guys could show up, and people would feel safer that way" (P19). Participants voiced a strong preference for having peers and people with lived experience attending overdoses in the community rather than the police.

Sub-theme 5.5: Law Changes

Changes to current legislation applicable to unregulated drug use were requested by many participants as a means of supporting overdose response in the community. With regards to the *Good Samaritan Drug Overdose Act,* participants voiced concerns surrounding being "responsible for someone going to jail because you called 911 and saved a life" (P13). Participants also sought after the creation of more nuanced laws, such as a law that clearly delineated between PWUD and high-level drug dealers: "There is a big difference between using opioids and the intention of distributing them for money… it is a lot different than feeding a habit that you need to feed just for daily operation" (P15).

Beyond drug-specific laws, participants also discussed the need for changes to laws that often impact PWUD, such as decriminalizing survival sex work: "I wish they would regulate sex work more because then we wouldn't have to deal with really shady people" (P1). Overall, participants emphasized the need for change in general:

> I know Portugal is a whole different complete country. But the statistics they have shown are incredible. So, if we try it and it doesn't work, then so be it. But let's try something different because what we're doing isn't working. It is definitely not fucking working. It's time to think outside the box (P4).

Sub-theme 5.6: Peer Driven

Regardless of how changes were envisioned, an overarching message of needing to involve PWUD and peers with lived experience in decisions regarding unregulated drug use and overdose response in the community was echoed between participants. Ultimately, PWUD were "the ones who are out there, doing it [overdose response]" (P17), resulting in them holding the expertise and knowledge required to understand this topic. Indeed, one participant emphasized that "we as peers are the ones with the know-how. You can't learn what we learn in a book. You just can't" (P4). Initiatives must be created not only in collaboration with PWUD, but also led and driven by the community themselves to be impactful given how misunderstood and misrepresented this group feels: "Take a walk in our shoes. I bet you can't last half a day" (P17).

Overall, these research results reveal the invisible labour of overdose response that occurs on a regular basis in the community as it is enacted by PWUD and their peers. Participants were able to provide detailed descriptions of their overdose assessment and response, including concepts such as clinical intuition and risk management strategies. Participants articulated citizenship as an essential component of overdose response, which was largely driven by moral duty and group belonging and supported by clearly delineated rules of social engagement. Trauma was woven throughout all of the central research results, and participants demonstrated how traumatic experiences are reinforced and inevitable given the current state of

criminalization and the overarching drug poisoning crisis. The need for addressing gaps in current supports and services – including the negative impact of police – for overdose response was discussed, and participants were able to begin envisioning a future with increased safety for PWUD.

Figure 3 provides an overview of the many forces that impact overdose response in the community as described by participants in these research results. This figure visually highlights the contextual factors which participants are managing when responding to overdoses in the community. While in-the-moment stressors specifically related to the act of overdose response such as feelings of anxiety, stress, and numbing are important to consider, participants also described balancing many other priorities. These may include the close relationships and moral duty that exist within the community, performing risk management, ongoing grief and loss, and managing care with a lack of resources at their disposal. Simply put, these forces impact the ability of PWUD to access the support and care they require, leading to increasing rates of morbidity and mortality because of the drug poisoning crisis.

Figure 3: Forces Impacting Overdose Response in the Community

Chapter 6 – Discussion

"In light of the enormity of the harm done, as a society, where do we go from here?"

Bonnie Burstow

This chapter provides a discussion of the findings uncovered from the research results outlined in Chapter 5. This discussion draws on the work of Bonnie Burstow (*radical trauma* theory[1] and *layers of trauma* framework[2]), Maria Root (*insidious trauma*[128]), and Johan Galtung (*structural violence*[129]) as presented in Chapter 3, as well as the work of other researchers to ensure an accurate and thorough exploration of the results. Further, the results are compared with current literature relevant to the topic of overdose response which was presented in Chapter 2. Following this, an overview of the limitations of this research project is presented. Finally, recommendations regarding how these research results may contribute to the future direction of the nursing discipline and substance use services is discussed. Specifically, recommendations regarding clinical care, research, education, resources and supports, and policy work are presented.

In the previous chapter, the five major themes that arose from interviews with participants were presented; these included: 1) labour, 2) citizenship, 3) trauma, 4) current services and supports, and 5) envisioning the future. Although results were presented in these distinct themes, ultimately, important points for discussion cut across and connect the research results. Because of this, an overview of the upcoming discussion regarding our research findings is first presented to provide a roadmap to interpreting and understanding this discussion. Following this, the first discussion point from this research project explores the self-sufficiency of the community of PWUD as

well as the responsibility and risk management taken on by each member. The second discussion point considers the many sources of tension PWUD described within the context of normalized, everyday violence. Lastly, recommendations for future directions are presented. It is important to note that these recommendations were created by the participants and represent how participants envision the future of overdose response as well as the drug poisoning crisis in general. PWUD must always be meaningfully involved in discussions surrounding systemic barriers to care and solutions to address the drug poisoning crisis.[127]

Overview of Discussion of Research Findings

Overall, findings from this research project helped to expose the complex and intertwining forces (and resultant tensions) that impact peer overdose responses in the community. Unsurprisingly, given the research objectives and questions, research participants provided extensive narrative descriptions of their personal experiences witnessing and responding to overdoses in the community, including precise descriptions of how they have managed drug overdoses in the past, and important findings surrounding how to best care for someone experiencing an overdose in the future. Their reasons for deciding to participate in overdose response commonly arose from their self-described citizenship within the community of PWUD. There were many expectations associated with belonging to this group, such as a duty to care for one another and rules of social engagement that should be adhered to. Of note, not all participants who were interviewed were currently using unregulated drugs, and it became clear that this status (currently vs. not currently using drugs) did not impact citizenship: simply having used unregulated drugs in the past was enough to bond them

to the group. Participants also described having expertise and ingenuity which they relied upon when participating in the labour of responding to overdoses, particularly given their lack of resources in the community and concerns surrounding safety and the need to manage risk. Importantly, community membership was also accompanied by the shared experience of ongoing stigma and marginalization enacted by those outside of the community.

All of these forces – duty of care, expertise, ingenuity and safety in labour, shared stigma and marginalization – result in the development of close bonds and relationships, as described by the participants. While initially, the concept of citizenship seems to be the central component required to better understand the community of PWUD, the origins of this community are buried much deeper. Ultimately, the self-reliance found within this community is not resultant of a desire to acquire or maintain one's membership – instead, it is largely created and driven by their ongoing experiences of trauma and the failure of programs and services to care for them appropriately. Participants spoke about feeling ostracized, experiencing extensive barriers to care, and described an overwhelming fear of punishment and rejection which demanded their creation of an insulated community of PWUD, away from potential harm. Their lack of safety predominantly arose from the criminalization of their unregulated drug use and misunderstandings surrounding the needs of PWUD. Indeed, as participants sought to create safe spaces to care for one another and develop their own expertise, ultimately these needs arose out of necessity, fear, and trauma. This results in a self-perpetuating cycle: as PWUD continue to experience major barriers to services and programs designed for them and are criminalized and judged for their

unregulated drug use, they also continue to develop expertise and ingenuity in caring for one another out of necessity. Figure 4 provides a visual depiction of this perpetual cycle of oppression and isolation.

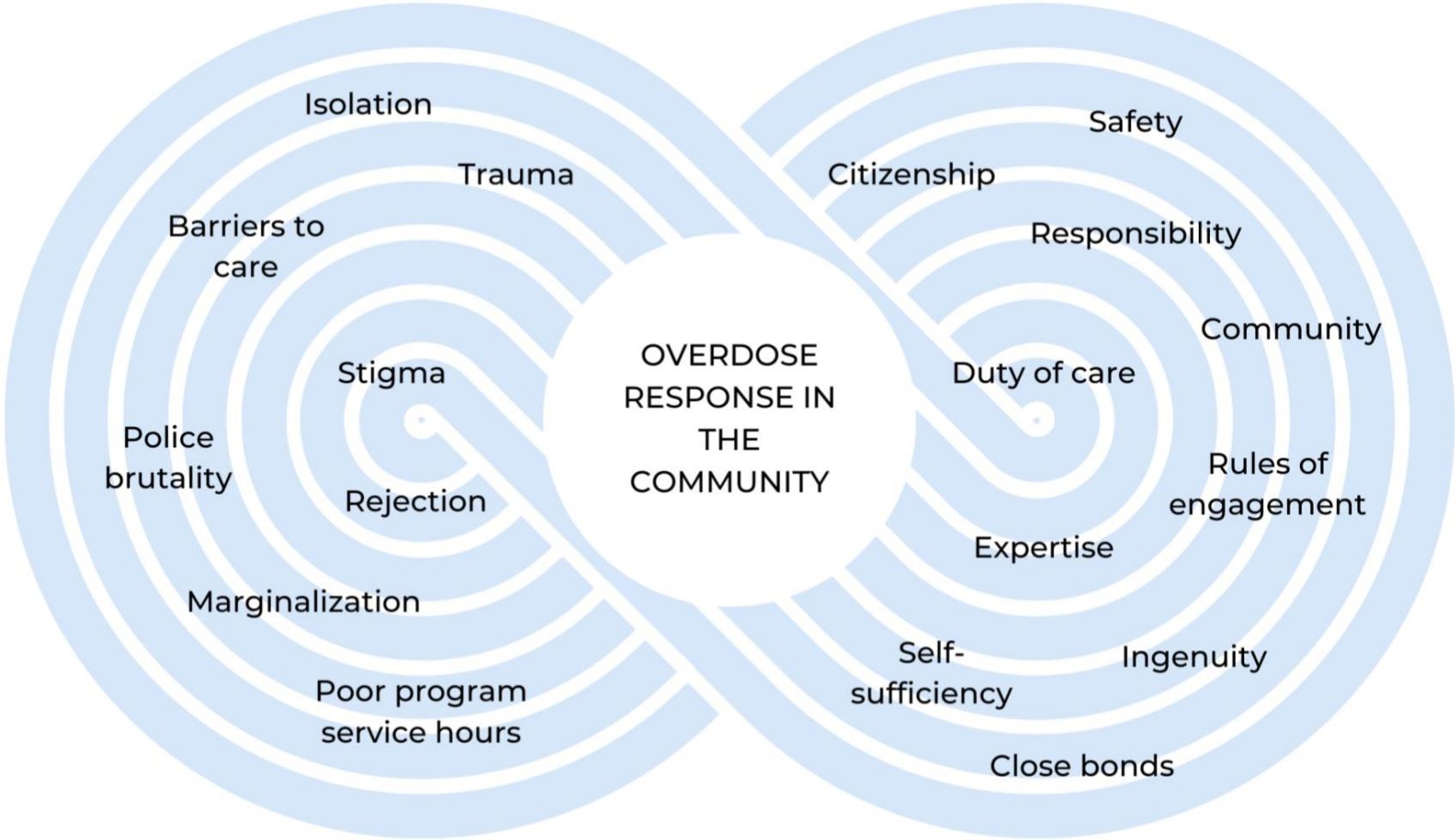

Figure 4: Perpetual Cycle of Oppression and Isolation

Further exploration of these concepts as they apply to the results of this research is provided in *Discussion Point 1: Community Self-Sufficiency* and *Discussion Point 2: Tension and Everyday Violence*, found below. Before delving into these discussion points, a topical example of the forces and tensions impacting PWUD is presented on the topic of the development and implementation of safer supply programs in Canada. While this topic of safer supply is separate from the thesis research on overdose response in the community, this example serves to establish the framework of the upcoming discussion and reinforce the understanding of how the perpetual cycle of oppression and isolation impacts PWUD. Historically, PWUD themselves developed the concept of safer supply as a solution to this toxic unregulated drug supply.[180] Through the provision of legal and regulated drugs that have traditionally only been available within the unregulated drug supply (e.g., fentanyl, cocaine, crystal methamphetamines, etc.), PWUD can be offered the option of using drugs safely. In 2018, Health Canada's Substance Use and Addictions Program announced its support of several medicalized safer supply pilot programs given the escalating rates of morbidity and mortality surrounding the toxic unregulated drug supply, as well as a need for expansion of harm reduction-based services.[5] As programs scaled up, program evaluations were released which highlighted the positive impact of safer supply programs, such as reductions in risk of death and/or overdose, improvements in physical and mental health, fewer emergency department visits and hospitalizations, and declines in healthcare costs.[46,47,181–183]

Despite these findings, safer supply programs continued to be available to very few PWUD in a very limited number of communities across the country.[184] Additionally,

other gaps with the programs were uncovered, which included limited drug options resulting in prescription medication which did not match the unregulated drug supply.[46,185] Other barriers included programs requiring PWUD to pick up their medication each day from the pharmacy, inflexible programming, and a lack of individualized care (e.g., programs often lacked the ability to change and evolve with participants – many program participants were still required to complete weekly check-ins and weekly urine drug screens with their team despite meeting their goals and maintaining stability on the program for years).[46,185] To combat the gaps in care created by the medicalization of these programs, two important solutions were implemented by PWUD. First, the Drug User Liberation Front (DULF) started a peer-led buyers' club (non-medicalized safer supply), whereby unregulated drugs are bought in bulk, tested for purity and contaminates, and distributed to PWUD at a reasonable cost.[186,187] Second, some PWUD enrolled in safer supply programs began sharing and selling their medication as a way of offering safe drugs to others in their community or as a form of currency to meet their needs (e.g., trading prescription hydromorphone for more potent opioids such as unregulated fentanyl when drug withdrawals were particularly unmanageable).[46]

Similar to the ingenuity and care spoken about during drug overdose responses, PWUD demonstrated ingenuity through sharing and selling amongst their community to provide additional layers of safety to others. However, these efforts have served to further isolate and stigmatize PWUD: DULF founders Eris and Jeremy were arrested for their efforts, and the diversion of safer supply medication has been demonized in the media, with many opponents calling for programs to be closed.[188,189] Overall, rather than

addressing the gaps and barriers that exist with safer supply or overdose response in the community, or respecting the ingenuity and adaptability of the community of PWUD, PWUD are now faced with further stigma, judgement, and ultimately neglect from those outside of their community. Once again, as PWUD come up with solutions and seek to care for their community, they are further criminalized and judged for their actions.

Discussion Point 1: Community Self-Sufficiency

Being a citizen of a distinct community comes with increased responsibility for the welfare of the larger group. Given the ongoing oppression of and trauma experienced by PWUD, community citizenship and the resultant self-sufficiency is an important concept for discussion. Within the context of overdose response, this can be summarized succinctly: people make their own rules because the broader societal rules or guidance they are being given do not work or worse, create harm. For example, our research participants spoke about the limitations of the *Good Samaritan Drug Overdose Act* in the context of law enforcement enacting violence and harm against themselves and other PWUD. Because of this, PWUD were burdened with the responsibility of attempting to uphold their own rules which often were created in opposition to (or as a way of counteracting) legislation and regulations often supported by law enforcement. This can be further understood through the finding of risk management, wherein participants recounted being forced to assess the risk of outcomes related to decision-making in overdose response. A common risk management scenario brought up by participants was weighing the pros and cons of cons of calling 911 for help. Participants recounted struggling with wanting to save their peers, while also not wanting to place themselves or their peers at risk by alerting police to their unregulated drug use. It is

interesting to consider the risk management skills described by research participants within the context of being a criminalized person – in theory, there is an increased level of risk associated with simply being a citizen of this community.[190] For example, PWUD often are forced to participate in criminalized behaviours to acquire unregulated drugs (including the act of purchasing these unregulated drugs) and then must consume unregulated drugs with unknown contaminates (with unknown harmful effects) that place them at risk for overdose or other complications.

Importantly, as was previously discussed, citizenship was repeatedly reinforced by those outside of the community of PWUD through ongoing isolation, stigma, and a lack of resources or support. Public health messages surrounding the drug poisoning crisis commonly focus on what PWUD can do to care for themselves as a community. For example, PWUD are encouraged to use drugs with peers (not alone), to always carry naloxone, and to use test shots and drug testing strips to assess drug potency. Each of these measures places responsibility on the individual to maintain safety, without contextualizing the external forces that create these dangerous environments.[98] This may help to explain why many of our participants expressed their peers dying of an overdose as a personal failing, rather than systemic violence. This finding is different than research done by Bowles and colleagues[191] which found that overdose responders often placed individual blame on the person experiencing an overdose, rather than factors such as the poisoned unregulated drug supply. Rather than blaming the person experiencing an overdose, our participants often expressed guilt or shame within themselves when they were not able to help a peer. This may be better explained through the self-sufficiency described by research participants: faced with a constant

barrage of victim-blaming messages and having to exist within a society which continues to place value in abstinence, PWUD must rely on themselves for support and care. When, despite this support and care, someone dies of a drug overdose, it becomes clear why our research participants felt as though this is a personal failing in the context of their own citizenship, despite our findings highlighting the harms towards PWUD being largely perpetuated by outside forces.

Citizenship has been explored extensively in previous research, with Ponce and Rowe[192] defining citizenship through the 5Rs: rights, responsibilities, roles, resources, and relationships. MacIntyre and colleagues[193] studied citizenship with a focus on marginalized groups of people who had experienced major life disruptions. From their study, they uncovered five overarching themes that were common amongst their study participants which helped them define their citizenship. The first domain, building relationships, encompasses establishing relationships with people who may have similar life experiences, resulting in the development of a like-minded community.[193] This domain was clearly present amongst our research participants. They emphasized an overall sense of group belonging among PWUD which was supported through group expectations and rules. Further, participants were bonded as a result of their drug overdose experiences, whether from their own experience of overdose or through responding to overdoses in the community. Participants explored how these shared experiences allowed for increased levels of empathy, understanding, and ultimately safety and security amongst PWUD. Importantly, similar life experiences commonly included ongoing experiences of rejection and marginalization for PWUD. The second domain is made up of two synergistic parts: acceptance and autonomy.[193] For

relationships to be meaningful, they must be reciprocal between people. This unwavering acceptance was discussed by participants through descriptions of moral duty and intense group belonging. Moral duty and reciprocity were particularly important to participants and notably reinforced through empathy gained because of their own personal experiences. Essentially, saving someone else's life when they overdose on drugs reinforces this as a standard practice, thereby further ensuring someone will save you when you next overdose. Thus, responding to an overdose in part can be seen as self-preservation, with participants seeing a reflection of themselves in the person experiencing an overdose. The second portion, autonomy, is highly representative of the participants developing their own rules (e.g., you must save someone who is overdosing) and safeguards (e.g., thoroughly assessing drugs before using them) to take back some control over their decision-making power and autonomy.

The third domain, access to supports and services, supports the notion that gaining access to basic life-sustaining services (e.g., healthcare, housing) is often a more complex process for marginalized groups.[193] Our research participants spoke at length about struggling to find services that worked for them. More concerningly, even when services were technically made available, participants often described them as performative, empty gestures. For example, having naloxone available at pharmacies does not necessarily make it available to PWUD. If PWUD experience stigma and judgment when engaging with pharmacy staff to access naloxone or sterile supplies, this may result in PWUD not accessing the service at all. The consequence of this is PWUD not having appropriate and safe access to the medication they need to reverse an overdose in the future. Our participants spoke about this experience of judgment and

how this resulted in their avoidance of certain services and programs. This belief is supported by other research, wherein research teams have found that stigma and negative interactions with healthcare providers discouraged PWUD from accessing health services, including pharmacies.[194] The fourth domain, shared values and social roles, ensures citizens retain mutual respect and support for one another, particularly within the context of marginalization.[193] Participants described having a commitment to the safety and well-being of other PWUD, which was an obligation that was upheld to fulfill the requirement of being a citizen. For example, our participants spoke about stopping to respond to overdoses of people they did not know, even when they feared for their own safety as a criminalized individual should emergency services be alerted. Further, they explained how helping another PWUD was not optional, but instead a moral obligation that must be upheld under even the most stressful circumstances. Civic rights and responsibilities made up the final domain.[193] Participants described how they abide by their own group directives to ensure improved safety for themselves and other PWUD. The creation of these novel rules helped to normalize the experience of overdose response, as it was a common, re-occurring event that all participants came to expect and participate in.

Ultimately, this research project revealed some of the hidden realities of the lives of PWUD which are often invisible to those outside of the community. Participants were able to provide exceptionally clear descriptions of the labour they participated in concerning overdose response, and many of them disclosed their research interview was the first time they had spoken about these events with anyone. Their experiences remained hidden, essentially invisible, and certainly without compensation. This is

similar to other research findings which highlighted how peers working in harm reduction facilities often felt the need to participate in invisible (beyond their job description) and unpaid labour. [69,70] Further, our findings support the concern that PWUD are being exploited for their labour within the drug poisoning crisis, while also having their efforts subverted through structural violence in the form of a toxic drug supply and their ongoing criminalization. A research study by Kolla and Strike[98] supports this finding, wherein they spoke with PWUD who were employed by a community health centre to offer satellite harm reduction programs in their home. Research participants spoke about the stress of being tasked with responding to an unmanageable number of overdoses, many of which occurred with their close friends and acquaintances, causing further stress and anxiety. Participants also described frustrations surrounding public health messaging indicating they should call 911 during an overdose, which ignored the ongoing realities of negative experiences and fears surrounding interactions with law enforcement. Despite not being formally employed to respond to overdoses, our participants faced similar concerns. Although our participants spoke about their participation in invisible, unremunerated labour, they similarly disclosed feeling high levels of stress associated with their role as an overdose responder and fears of law enforcement should emergency services be called.

Of interest, our participants were able to articulate exceptionally comprehensive overdose assessments and response efforts which often resulted in them successfully resuscitating the individual experiencing an overdose. Ultimately, our research participants can be categorized as lay experts. While this title may seem counterintuitive, it is representative of expertise based on life skills. Jauffret-Roustide[195]

described the importance of broadening the concept of expertise beyond reliance on the traditional forms of evidence-based research and clinical practices when working with PWUD. They asserted the importance of the inclusion of the life skills of PWUD as expert evidence when considering the needs of the community (please note DU stands for drug users in their quote):

> Life skills highlight the technical, social, physical and moral dimensions of DUs' expertise: technical skills (their practical knowledge as DUs); pharmacological skills (misuse of drugs and how to obtain a desired effect); institutional skills (how to deal with the healthcare system or avoid contacts with the police); social skills (knowledge of social networks and social intercourse among users); physical skills (the ability to know how to behave and what body language to adopt in places of drug consumption); and moral skills (the confidence DUs need to elicit in order to be accepted by the DUs community).[195 (p.167)]

It is interesting to note that many of these life skills were also highlighted by participants in our study as important knowledge to be part of the community of PWUD, such as moral duty (e.g., caring for others), practical knowledge (e.g., how to titrate overdose reversal medication), and interacting with police/people outside of the community of PWUD, among others. Thus, while participants were not formally trained in overdose response, their life skills provided them with tacit knowledge that cannot be obtained by those outside of the community. Indeed, our research findings align with much of the messaging and recommendations put forth by PWUD advocacy groups[127,196], including the document released by the Canadian Association of People Who Use Drugs entitled *Hear Us, See Us, Respect Us: Respecting the Expertise of People Who Use Drugs*.[197] This messaging asserts that PWUD must be included as essential partners and experts in harm reduction and substance use endeavours. Ideally, PWUD themselves must lead in the development and implementation of any policy, program, or other service that impacts their community. This requires a shift in

the types of knowledge and evidence that are valued when considering the needs of PWUD. While policies and protocols typically rely heavily on empirical evidence created by knowledge experts in the domains of clinical work, academia, and research, the importance of personal experiences and insider knowledge of the community must be prioritized as essential evidence as well.

As mentioned in Chapter 2, much of the current literature surrounding overdose response in the community (outside of harm reduction services) focuses on training peers and PWUD, with findings suggesting that they are capable of successfully reversing overdoses.[78,79] Our research supports those findings and also supports the findings that PWUD feel safer and better supported when someone from their community is responding to their overdose.[80,81] Further, participants emphasized the importance of striking a balance between resuscitating someone with naloxone and avoiding severe (or “major”) withdrawal symptoms, which was attributed to their ability to empathize with the experience of opioid withdrawal. A report released by the Centre for Disease Control compared the outcomes of PWUD when law enforcement administered 4mg or 8mg naloxone doses to reverse an opioid overdose.[198] They found that there was no significant difference in the survival of the person experiencing an overdose when they compared the two dosage types. However, people who received the 8mg naloxone doses were twice as likely to experience opioid withdrawal symptoms. These research findings support the emphasis our participants placed on balancing the administration of naloxone doses with the risk of experiencing post-overdose withdrawal symptoms. Should too much naloxone be given, and unmanageable withdrawal symptoms occur, PWUD who have just experienced an

overdose are now forced to rapidly find drugs to manage their withdrawal cycle, placing them once again at risk of experiencing a drug overdose.

However, this research diverges from previous research findings and recommendations surrounding overdose training of PWUD. Participants described comprehensive and skillful descriptions of their overdose assessments and response techniques despite not having accessed formalized training or being able to use the equipment usually available in medical and harm reduction spaces (e.g., spO2 monitoring). Indeed, this group was able to provide thoughtful and detailed insights into overdose response. Further, they emphasized the strengths that PWUD have when responding to overdoses, such as a profound understanding of how it feels to experience an overdose from a physical, psychological, and deeply personal perspective. This finding supports the need to consider how we can formally support PWUD to act as overdose response trainers for the general public, and how we can support their ongoing efforts to share techniques and skills amongst their own community. This also ties into the aforementioned concept of clinical intuition briefly mentioned in the results – clinical intuition is often attributed to a level of expertise that has been developed over time based on a combination of clinical knowledge, past experiences, and individual assessments.[199] Healthcare providers often struggle to describe the exact processes behind their clinical intuition – this is comparable to the difficulty participants voiced in clearly delineating where simply experiencing the high of using drugs ended, and where a drug overdose began.

Discussion Point 2: Tension and Everyday Violence

The messaging from participants throughout interviews supported the understanding that solutions to the drug poisoning crisis provided by influential outsiders (non-PWUD), such as government institutions and policymakers, to date have often ignored the actual problems faced by this community. While these influential groups have acknowledged that we are in the midst of a drug poisoning crisis, it has been an acknowledgement without effective action. It is appropriate to assert this statement given the continual, escalating rates at which people have been dying across the country since 2016 as a result of the poisoned unregulated drug supply.[3] Two examples help to further illustrate this point. Firstly, the implementation of SCS simply provides a safer space to use poisoned substances, rather than addressing this drug toxicity issue through the implementation of a regulated drug supply. Secondly, the creation of the *Good Samaritan Drug Overdose Act*[99] creates piecemeal legal protection for PWUD responding to an overdose event in a narrow range of circumstances, rather than decriminalizing drug use altogether. It is not to suggest that these services and changes to legislation are not currently important and impactful for PWUD, but rather to point out they have been implemented in lieu of widespread cultural change that should be reflective of and align with the day-to-day lived experiences of PWUD. Further, they do not address the finding that the vast majority of drug poisoning deaths occur in private residences and the community, outside of healthcare and harm reduction programs.[56]

The focus of this thesis was to speak with PWUD and their peers about the potentially traumatizing experience of responding to an overdose in the community within the current context surrounding unregulated drug use and the drug poisoning

crisis. While participants did define trauma in terms of the medical emergencies they constantly respond to, this was only one piece of their stories. This traumatizing event had a defined beginning and end and was the most tangible/visible layer – the personal trauma experienced now as described by Bonnie Burstow.[2] Participants were able to clearly describe numerous overdose response events they have participated in with the research team. These included descriptions of the moment they realized someone was overdosing, the steps they followed to intervene in this medical emergency, and how they felt throughout the process. They also described events surrounding how they responded, such as other people who may have been acting as bystanders, interactions with emergency services, and their understanding of what happened to the person who overdosed (e.g., if they survived, died, were brought to the hospital, etc.). However, what was more prominent were the descriptions participants provided regarding being perpetually harmed by the circumstances and context surrounding their status as a person who uses unregulated drugs, reinforcing the need for an approach to understanding trauma within a person's life context. Figure 5 shows a reimagined version of the *layers of trauma* framework[2] to visualize this finding.

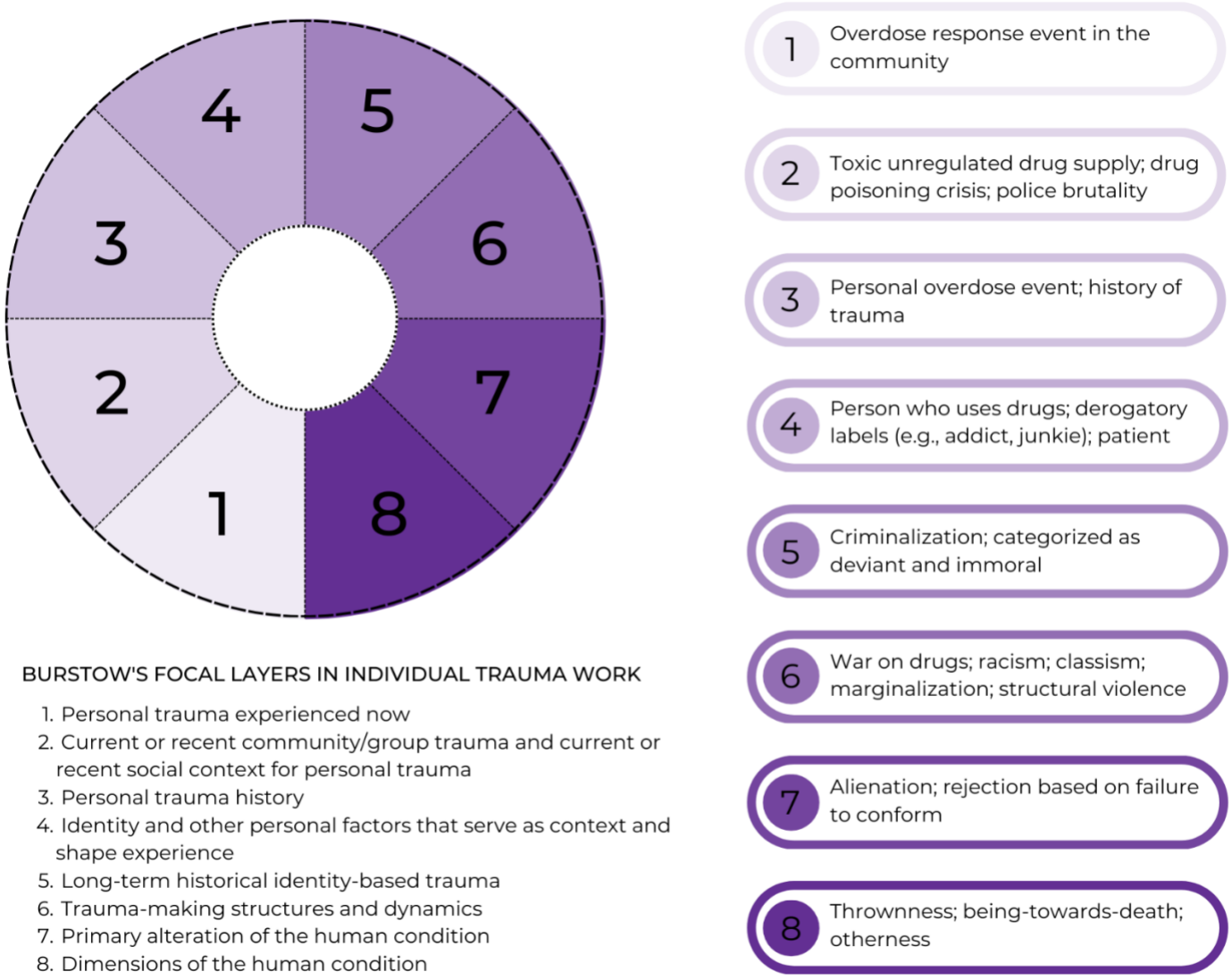

Figure 5: Burstow's Layers of Trauma Framework – Overdose Response

In this version, the layers have been altered to be within a circle to depict the non-linear impact they have on one another. Further, dotted lines are used to suggest that all the layers influence one another and to visually explore how trauma is experienced and perceived. The first layer (personal trauma experienced now) represents the acute event of overdose response in the community as described by all participants. The second layer (current or recent community/group trauma and current or recent social context for personal trauma) was spoken about extensively by participants, including the risk of accessing a poisoned unregulated drug supply, existing within a drug poisoning crisis, and worrying about when the next experience of police brutality might occur. Participants sought to explore their own overdose events (reflective of the third layer) throughout the interviews and often used this as a gauge for how they took care of others. The influence of identifying as a PWUD (fourth layer) and the subsequent rejection or judgement from those outside of the community was noted by participants. Further, the difficulty of being a criminalized individual (fifth layer) arose through discussions surrounding direct interactions with police as well as the indirect need to remain hidden and feelings of rejection due to this status. Layers six, seven, and eight were not explicitly discussed or brought up by participants, but the influence of structural violence and alterations to the human conditions were present in interviews. Overall, participant stories reinforced the dangers of removing the context of trauma through a medicalized, deficit lens such as the DSM. While some participants did speak about the specific symptoms or consequences of the trauma they experienced when responding to overdoses (e.g., emotional detachment, fear, stress, etc.), this was not the central focus of their interviews. Instead, participants emphasized the need to

understand their trauma within the broader context of their lives. They highlighted the impacts of their ongoing marginalization and criminalization which resulted in barriers to care, limited resources, and a lack of broader community engagement, which supported the application of Bonnie Burstow's *layers of trauma* framework.[2]

As depicted in Figure 4, in many ways, the trauma experienced by participants is more clearly represented by cycles in constant motion rather than sequential layers. Our research participants spoke at length about being stuck in many different, overlapping cycles: a cycle of drug use, a cycle of overdose, and a cycle of criminalization. These cycles often dictated how they spent their time and resulted in people feeling as though they had minimal safety or control over their lives. Further, these cycles perpetuated many instances of trauma and violence faced by participants. This finding aligns with Bonnie Burstow's description of a similar phenomenon related to critical trauma theory: "Trauma is characterized by a loss of grounding or absence of grounding. People and communities are overwhelmed, feel existentially unsafe, and find the world profoundly and imminently dangerous."[1 (p.1303)] Recent research in Ottawa has similarly characterized the lives of PWUD as entrapped within cycles of drug use that ultimately result in decreased autonomy and decision-making.[47,200] Similarly, each of these references to cycles and a lack of grounding are reinforced by and perpetuated through the context of criminalization and a poisoned drug supply.

Inevitably, there is a degree of pressure and tension that arises from the traumatizing cycles impacting PWUD – as stated by Burstow, "trauma tends to be characterized by opposing pulls and directions."[1 (p.1303)] Figure 3 and Figure 4 provide visual depictions of a number of forces participants reported as impacting their day-to-

day realities and decision-making abilities. Overall, this can be summarized as participants experiencing a constant barrage of oppositional and confusing messaging. They are informed that they are a criminal except when responding to a drug overdose in the community; however, should they fall under an exception (e.g., having a warrant) regarding the *Good Samaritan Drug Overdose Act*, they are re-categorized back into a criminal. Despite this, they should choose to call for help/emergency services during an overdose in the community and are encouraged to remain with the person experiencing an overdose to monitor them. However, if law enforcement arrives and feels as though the overdose responder provided the drugs in this situation, they can be arrested for trafficking, or worse, charged with manslaughter should the person die as a result of using poisoned substances. PWUD are told their lives matter through the creation of amendments to the *Controlled Drugs and Substances Act* – meanwhile, the war on drugs rages on. This tension extends far beyond the act of overdose response; participants spoke about being encouraged to access support for their substance use, while also being informed they must cease their use of substances to gain access to services. Each of these statements stands in opposition to one another, yet they make up the current situation faced by PWUD.

Prior to any experience of overdose response, participants existed within a society where they experienced everyday violence. This violence is enacted by many different entities and participants recounted how violence becomes normalized and integrated into their lived realities. Further, as mentioned at the start of this chapter, this ongoing marginalization and violence enacted upon research participants continuously reinforces the need for isolation and ingenuity among PWUD to maintain a level of

safety and comfort. Violence is not merely the experience of physical harm or direct violence[201] (although this does happen, as participants spoke about being physically assaulted by law enforcement officers), but refers to the aforementioned concept of *structural violence*, a term which Galtung references within the condition of social injustice.[129] Galtung's typology of violence helps to parse out how the basic needs of PWUD are impacted by *structural violence*: *survival needs* are threatened through the constant threat of death; *well-being needs* are contradicted by morbidity and misery; *identity needs* are threatened by alienation and segmentation; and *freedom needs* are invalidated through marginalization and repression.[201] This type of violence is often related to *insidious trauma* as described by Root:

> Insidious trauma is usually associated with the social status of an individual being devalued because a characteristic intrinsic to their identity is different from what is valued by those in power… as a rule, insidious trauma's effects are cumulative and directed toward a community of people.[128 (p.240)]

Violence is further perpetuated through issues of control and power, particularly as it relates to participants either 1) accessing medical/healthcare or 2) interacting with law enforcement. It is important to note that these instances of control and power existed where there was tension and mixed messaging regarding the status of PWUD. In both aforementioned examples, participants struggled with the conflicting labels of being a client experiencing mental health concerns (a substance use disorder as defined by the DSM[130]), a criminal breaking the law, and a person managing or coping with trauma. These different labels created a landscape of confusion and uncertainty, wherein PWUD are constantly assessing how they are being perceived by others. Control and discipline of PWUD were briefly touched on in the literature review, as Bourgois[39] discussed how historically the state and medical authorities made the

distinction between acceptable and useful drugs (e.g., caffeine, prescription opioids or stimulants, cannabis) and dangerous unregulated drugs (e.g., unregulated fentanyl, crack cocaine, crystal methamphetamine). It is worthwhile to note that “acceptable” substances are all state-controlled and/or regulated.

Above all else, negative interactions with police were most consistently brought up by participants when discussing barriers to care and support. This was not necessarily surprising – the literature to date supports the understanding that PWUD do not trust and often fear the police.[86,87] However, participants described not only how police impacted them during direct interactions, but also how simply the possibility of police presence undermined their efforts to save lives. All participants were able to recount numerous negative experiences with police, and many of them had physical reactions when sharing these stories – participants shifted in their seats, fidgeted, wrung their hands, shifted their gaze to the floor, raised or lowered their voice, changed their tone, began to cry, or became visibly angry.

For this research project, we did not speak with the police directly; however, as mentioned in the results, participants were asked to reflect on why – from their perspective – they consistently experienced negative interactions with the police. While the label of criminal is most obvious as a source of contention, participants also felt as though there was a general misunderstanding about drug use amongst the police. Participants felt as though the police often perpetuated the rhetoric of victim-blaming (e.g., blaming PWUD for their drug use), myths about substance use (e.g., disposing of someone’s drugs will stop them from using drugs), and focused on uncovering crimes rather than helping people (e.g., arresting people at an overdose event instead of

helping them). These observations by participants are directly reflected within Burstow's *radical trauma* theory: "Magnification of trauma by others and by society at large occurs in manifold ways, including denying the injury, minimizing the injury, failing to accommodate, and failing to help."[1 (p.1307)]

The criminalization of PWUD can also be understood as the judiciarization of unregulated substance use given the ongoing reliance on courts and legal systems to address "core moral predicaments, public policy questions, and political controversies" [202 (p.253)] surrounding PWUD. Examples of this can be found throughout the history of unregulated substance use, such as the implementation of the *Opium and Narcotic Drug Act* in Canada which was discussed in the literature review. With regard to unregulated drug use, court systems to date have largely been relied upon to enact broad sweeping legislation to control and monitor unregulated substances and the community of PWUD.[99,203] Interestingly, a recent report by the Global Commission on Drug Policy found approximately 270 million people consume unregulated substances each year, rendering punitive, prohibitionist laws ineffective:

> When laws are ignored on such a scale in any jurisdiction, they are usually reviewed and modernized. But when it comes to drug laws, their inability to adapt to societal needs is ignored and, if anything, they are enforced with additional zeal through even more repression, thereby causing more harm while feeding the cycle of defiance… True reform will not arrive until the outmoded drug conventions are modernized by being rebuilt from scratch.[204 (p.15)]

A recent and relevant example of the judiciarization of PWUD arose through the introduction of new standards by the Government of Alberta for narcotics transition services.[205] This amendment largely impacted healthcare providers who were offering safer supply programs to PWUD. Prescribers were given less than 5 months to transition their clients from safer supply (or any "high-potency opioid narcotic" – a

precise definition of what this means was not provided in the initial press release) to an OAT program. This is counterintuitive, as many safer supply programs focus on offering care to PWUD who have attempted OAT in the past and have not found it to be impactful to address their ongoing unregulated drug use.[206] In turn, PWUD themselves have turned to the court system in an attempt to regain access to care. Ophelia Black – a safer supply client in Alberta – has sued the Government of Alberta for infringing upon her charter rights with this new amendment.[207] Specifically, she has cited her Charter 7 rights to life, liberty, and security of the person, her Charter 12 right not to be subjected to cruel and unusual treatment, and her Charter 15 right to equality.[208] She has since been granted an interim injunction for exemption.[209]

This example of PWUD being forced to turn to legal systems to continue to access care when the government and other institutions restrict access is not unique to Ophelia Black. In British Columbia, previous research trials offered PWUD novel drug treatment options, such as injectable diacetylmorphine and injectable hydromorphone.[119] Upon completion of this research trial, participants were transferred back to traditional forms of drug treatment such as OAT, despite positive outcomes (e.g., diacetylmorphine group had better retention rates as well as larger reductions in unregulated drug use, criminalized behaviours, etc.). Concerningly, to have qualified as a research participant, PWUD must have attempted OAT in the past and not found it to be impactful for their ongoing unregulated drug use. Research participants spoke out about their experiences publicly, which resulted in a small number of people being retained on this treatment.[123,124,210]

In summary, our research findings help us to better understand the many complex forces and tension faced by PWUD when responding to overdoses in the community. PWUD have developed their own important communities amidst their overall rejection and marginalization from broader society. This community maintains a defined protocol for citizenship which is accompanied by a duty of care and rules of engagement. Given the lack of appropriate or safe resources and supports to broadly address drug overdoses, PWUD develop their own expertise and ingenuity to combat and insulate themselves from the ongoing drug poisoning crisis.

Research Limitations

There are a few research limitations that must be noted. First, I am not a person who uses drugs and have not experienced many of the challenges faced by PWUD. I am a Registered Nurse who has worked alongside PWUD in both a clinical and research capacity for more than 5 years in the setting of a homeless shelter and SCS – further, I oversaw a safer supply program for several years. While these experiences provided me with some insight into the lives of PWUD and acted as the basis for this thesis, I remain an outsider among this population. This is important to note, as PWUD have clearly advocated for the inclusion of PWUD and people with lived experience in the research process.[127,197] To support this (as described in Chapter 4 – Methodology), I secured compensation to hire a peer consultant (a person with lived experience) through a grant provided by the Ontario Drug Policy Research Network.

Second, it is important to contextualize this research as a single-centre study in a large Canadian city. Participants have access to universal healthcare, and Ottawa has several cutting-edge harm reduction services targeted to serve PWUD that are not

available in most areas. This includes four SCS, numerous safer supply programs, an injectable opioid agonist therapy program, a managed alcohol program, and a targeted emergency diversion program, among others. This limits the transferability of these results. However, I have addressed the importance of policies and legislation in taking into consideration the many cultures of drug use that exist amongst PWUD: "Policy makers [must] be cognizant of local contexts… built-in flexibility for providers should be considered. Many sub-groups of PWUD need recognition and require service adaptation to suit their needs."[151 (p.198)]

Third, most participants were interviewed at the Trailer, a 24/7 SCS in Ottawa, Canada. While we attempted to make access to the research study as low barrier as possible (e.g., drop-in times, no requirement to phone/email and book an appointment), we recognize that only PWUD who accessed the Trailer were given the opportunity to participate in the research. This meant that people who may be barred or unable to access the SCS were not included. Further, only PWUD who felt safe accessing this harm reduction service could participate. In particular, we recognize that women who use drugs often face more barriers when accessing harm reduction or substance use-related services. In previous studies, women have described substance use and harm reduction services as masculine spaces where violence is often enacted on them by men.[159,211] Women have reported avoiding these spaces due to threats of violence or sexual assault.[212] While we did make efforts to ensure both women and men participated in the research, we recognize that likely there are many women who are at increased risk of overdose in the community (as they are not accessing lifesaving spaces such as SCS) who were not interviewed.

Fourth, at the time of data collection, I was working clinically with the community of PWUD as a nurse (outside of my research role). As previously mentioned, most research interviews were completed at the Trailer (SCS), which was also my main clinical work environment. Because of this, most of the research participants were familiar with me, whether they had directly interacted with me or indirectly seen me in the community. There were some potential benefits to this, as participants may have felt more comfortable speaking with the peer consultant and I (rather than an outsider) as there was a pre-existing level of rapport and trust. However, questionnaire responses were collected by self-report, increasing the possibility that participants provided inaccurate data based on what they believed the research team wanted to hear. To mitigate this risk, participants were informed and frequently reminded that the research data collected would be kept confidential and have no relation to my clinical work.

Future Directions and Recommendations

The findings of this research are important and may contribute to the future directions of navigating the drug poisoning crisis as well as the nursing discipline. Below, recommendations are presented as they relate to clinical care, research, education, resources and supports, and policy work.

Clinical Care

Participants described their assessments and techniques for overdose response in detail. While many of their techniques are like what is taught in overdose training courses, they communicated the importance of considering the drug use cycle when administering naloxone. Simply resuscitating people should not be the only goal, as too much medication will cause painful withdrawal symptoms, resulting in the use of

unregulated drugs to alleviate these symptoms, placing them at risk for overdose again. Instead, care should be taken to balance the need to reverse respiratory depression as well as avoid precipitating withdrawal symptoms. Participants also expressed a strong desire for intramuscular naloxone to be used when possible. Research has supported that intramuscular naloxone is more effective for reversing an opioid overdose when compared to nasal naloxone, further supporting this recommendation.[213,214] Further consideration of microdosing naloxone as a regular clinical practice is warranted. While anecdotally this does occur in harm reduction service settings, more research is needed to incorporate this into clinical practice standards.

The use of Bonnie Burstow's *layers of trauma* framework[2] and *radical trauma* theory[1] offer a novel approach to conceptualizing trauma experienced by marginalized groups which may explicate experience beyond dominant models. Engagement with new vantage points such as this may offer contributions for nurses and all those who may consider trauma within their vocation. Burstow's theory[1] and framework[2] can be utilized to understand the relevant forces that impact PWUD and other marginalized groups as they navigate and engage with many aspects of society. For example, it may be used to explore the broader factors in healthcare that reinforce the pervasive negative treatment of PWUD, as well as healthcare providers' "lowered regard, less motivation and feelings of dissatisfaction"[215 (p.33)] towards PWUD, which serves to reinforce experiences of stigma and stereotyping.

Within clinical practice, nurses often hold positions as gatekeepers to services accessed by marginalized groups, ranging from hospital settings to abstinence-based treatment or harm reduction services. Burstow's framework[2] may be used by nurses to

critique and examine their own practice and the many ways that they may be inadvertently reinforcing trauma. It is important to note that this is not to suggest nurses intend to traumatize clients on an individual level. However, through a re-examination of care at levels which may feel personally uncontrollable, nurses may begin to question and critique how they govern and uphold oppressive structures. For example, methadone remains the first-line medication treatment for opioid use disorders and is commonly dispensed through clinics staffed by nurses.[216] While methadone has been demonstrated to be a lifesaving alternative to unregulated opioid use for a subset of PWUD, there remain barriers to its use. Clients generally must participate in random urine drug screenings, sometimes under direct supervision. It is also common practice to dispense methadone as a daily witnessed dose, with take-home doses considered only among those who have been on methadone for extended periods of time and are deemed low risk for diversion.[216,217] While these direct methods have been analyzed and critiqued, nurses may use Burstow's work to consider how these strategic controls maintain power through upholding ideations of systemic criminalization and marginalization. Rather than building therapeutic relationships and alliances, these acts may serve to reinforce feelings of suspicion and mistrust between both parties.

Such critiques serve not to undermine, but rather contextualize, the work of nursing. Burstow's theory[1] can be seen as a tool to challenge thinking and reinforce reflexivity, propelling nurses to use their knowledge to advocate for change. Burstow's framework[2] demonstrates that to address large-scale systemic violence such as the war on drugs, active political participation by nurses is essential. This framework serves to demonstrate both the need for radical intervention at all levels of the socio-political

landscape, as well as for nurses to develop these deeper understandings and vie for a seat at the policy table.[218]

Research

Although this thesis project offered many insights, more research is needed to further understand the experience of overdose response in the community. The drug poisoning crisis has often been portrayed as a white, cis-male issue, with a particular focus on young and middle-aged men employed in the trades.[219,220] While this group is tremendously impacted, it has resulted in services and programs being tailored to the needs of this group, to the exclusion of others. As was mentioned in the limitations section, more research is required to understand the needs of PWUD who cannot or do not access harm reduction services. This may include women who use drugs, 2SLGBTQIA+ groups, Indigenous people, and people who are incarcerated. For example, there is research to support how women who use drugs have described substance use and harm reduction services as masculine spaces where violence is often enacted on them by men.[211,221] Because of this, women who use drugs have disclosed avoiding these spaces – including places to access sterile equipment and overdose prevention services – due to experiences of violence and risk of sexual assault.[212] Ultimately, this reinforces barriers to lifesaving services, placing these groups at increased risk of overdose and infectious disease transmission. Further, research in areas where there is less access to harm reduction services is warranted, as well as in countries that do not support harm reduction efforts and/or do not provide access to universal healthcare.

Given how clear participants were regarding their desire to not have law enforcement involved in overdose response, it would be worthwhile to speak with other first responders (e.g., paramedics) to understand their experience of responding to overdoses in the community with or without police present.

Education

Alongside peers and people with lived experience, nurses are often involved in the frontline delivery of harm reduction services. PWUD and peers must be valued not only as team members in these contexts but also as experts in the provision of care to PWUD. Trainers must be compensated for their time training as well as developing any materials used. Further to this, peers and PWUD should be empowered to lead overdose training courses in the community given their expertise and lived experiences. Recent research with hospital-based staff has suggested that healthcare providers feel as though they do not have the appropriate training or resources to provide care to PWUD.[222] Any nurse or other care provider who will be in contact with PWUD should be mandated to receive training from PWUD and peers to ensure they are culturally competent and safe in their care.

Resources and Supports

The development of appropriate resources and supports for peers responding to overdoses in the community was an objective of this research – several important recommendations emerged from the results. Overall, participants spoke about a lack of diversity in the current supports being offered to meet the needs of PWUD. This echoes the sentiment that it is dangerous to view PWUD as a homogenous group – cultures of drug use are unique and require different supports.[151] For example, participants spoke

about the limited resources available to people who inhale/smoke drugs. Currently, there are only three facilities in Canada (Saskatoon, SK; Toronto, ON; Saskatchewan, Whitehorse, YK) that can support people who smoke drugs. This feedback from our participants is similar to previous harm reduction research which has emphasized the importance of continually adapting the SCS model to meet the needs of the community of PWUD.[223] Appropriate adaptation includes developing SCS for people who inhale/smoke drugs, for people who may need assistance injecting, and integrating SCS models within hospitals or other institutional settings (e.g., jails/prisons). This could also include mobile or on-call services that travel to PWUD in the community, as participants noted how difficult it was to travel to an SCS and wait for space to open when they are in the midst of experiencing intense drug withdrawals and cravings.

Participants recounted regularly experiencing barriers to care as a result of their ongoing substance use. Participants spoke about not feeling welcome to access care due to experiences of stigma, such as feeling judged by hospital or pharmacy staff. These occurrences align with current research findings wherein PWUD commonly report experiences of stigma within healthcare settings, resulting in individuals feeling dehumanized and mistreated by care providers.[224] Even within facilities designed for them, PWUD frequently face these barriers to care. A research study focused on speaking with PWUD and key informants who care for PWUD (e.g., OAT and pharmacy staff) regarding their perceptions of substance use treatment.[225] This research team found that some key informants had negative views of OAT and expressed a general mistrust of PWUD. Further, PWUD in this study spoke about experiencing stigma and feeling forced into abstinence or medication tapering over time. A different study with

PWUD found that they experienced stigma when trying to access sterile syringes from a pharmacy – despite new laws mandating pharmacy syringe access, PWUD were sometimes denied access to purchase syringes by pharmacy staff.[194] A research team in Ontario, Canada found that family physicians were less likely to offer appointments to people who use opioids when compared to people with diabetes.[226] In fact, physicians with more than 20 years of experience were 13 times less likely to offer an appointment to people who use opioids. These examples all serve to support the need to address the cultures of marginalization that occur within these institutions, resulting in the exclusion of PWUD from accessing care.

Participants spoke about a desire for improved access to accurate and impactful drug-checking services. Currently, participants are forced to resort to unreliable methods such as tasting or smelling the unregulated drugs they purchase to decipher what drug they have been sold/given. Given how volatile the unregulated drug supply is, access to drug checking is an urgent need. However, there are several critical considerations that must be addressed when implementing drug checking services. Drug checking should be available 24/7, and people must be able to access this service as a harm reduction measure (e.g., before they use or sell the drug) or as a means of collecting information (e.g., after using drugs). Drug checking should be reliable, and results should be provided back to the individual soon after they drop it off – participants were clear that they would not be willing to wait long periods of time for the results. Further, drug checking should only use a very small quantity of the drug. It is noteworthy that research has shown that drug checking access does hold the potential to change behaviour among PWUD, such as participants altering the amount of a drug they are

using or warning their peer networks based on results.[227,228] Of importance, one study found that “those who were homeless, a sub-population known to be at a heightened risk of overdose, were more likely to use the services. Those involved in drug dealing were also more likely to use the services, which may imply potential for improving drug market safety.”[229 (p.6)]

PWUD require safe spaces to speak with others about their overdose response experiences and obtain support. Participants regularly disclosed this research project as the first time they had shared their overdose response stories. Recounting these experiences commonly caused emotional reactions among participants, such as expressions of sadness, anger, guilt, worry, joy, and pride. These spaces should be created and implemented by PWUD and peers. Further, while support should include therapeutic listening and empathizing, it should also move towards reinforcing understandings of how structural violence and inappropriate drug policy are to blame for the drug poisoning crisis, not the individual PWUD:

> The witnessing provided by a professional cannot satisfy the larger existential, social, and political needs. As such, it is important that counsellors act as a bridge into a larger frame so that more witnessing happens in the real world.[1] (p.1312)

PWUD and peers need more tools at their disposal to assist with overdose assessment and response in the community. While it would be ideal for the burden of overdose response to be alleviated from PWUD in the community, this is unlikely to occur in the context of criminalization, marginalization, and the poisoned unregulated drug supply. While it is important to broadly confront these topics (they will be addressed in the next section), in the meantime, rapid, low-barrier access to tools and technology to support overdose response must be implemented. This should include

novel technology to assist with monitoring breathing, oxygen levels, heart rate, and blood pressure, as well as more widespread access to tools to support ventilation and oxygenation (e.g., bag valve masks, portable oxygen tanks, CPR face masks, etc.).

Organizations must evaluate not only what harm reduction tools they are providing to the community, but also how they are providing these services. Participants spoke about feeling intense judgement and stigma when attempting to access things like condoms or sterile syringes from community organizations, or naloxone from pharmacy staff. Ultimately, this was enough of a deterrent to avoid these spaces, resulting in PWUD not being able to access the lifesaving equipment they needed. Thus, not only should these tools be readily available, but they should also be offered in easily accessible spaces. One example may be the use of a vending machine placed in the community that dispenses naloxone rather than requiring people to interact with a pharmacist to access naloxone.[230]

Participants expressed a need for resources that are currently available to PWUD to be better advertised to these populations. Many participants were unaware of services such as overdose response telephone lines[105–107] and expressed an interest in accessing these services to the research team when they were brought up. This suggests that improvements are needed to the knowledge transfer and exchange process to ensure the appropriate populations are being targeted to receive information.

Policy Work

When considering any of the recommendations provided, it is important to note that all recommendations should be approached in collaboration with PWUD and people with lived experience. Participants expressed a desire for services and support for

overdose response to be peer driven. This is not to suggest that PWUD should bear the burden of creating and implementing recommendations, but that their expertise and leadership should be prioritized and valued. PWUD have created documents advocating for this which should be utilized by decision makers, including *"Nothing about us without us" Greater, meaningful involvement of people who use illegal drugs: A public health, ethical, and human rights imperative*[127] as well as *Hear us, see us, respect us: Respecting the expertise of people who use drugs*.[197]

The most cited recommendation made by participants was to not allow police to respond to drug overdose calls. Participants described that police created significant barriers to overdose response and often were the reason they did not call for help. This is extremely concerning, as the purpose of activating emergency services is to support emergency situations – of which a drug overdose would be – in the community. This was previously discussed within the *'Barriers to Calling for Help'* section of the literature review. Several studies discussed how research participants associated the activation of emergency services for an overdose with the deployment of police. Given their status as a criminalized group and previous negative experiences with the police, this commonly resulted in PWUD delaying or avoiding calling for help.[77,84,86–88] Ultimately, the priorities and needs of the police and the community which they are purported to serve are fundamentally misaligned. The culture of police immunity and power perpetuates the subjugation of PWUD, who are, in modern society, powerless to bring about change through established channels. Without accountability, proportional consequences for malfeasance, and radical change, PWUD will not and cannot be protected nor served. Instead, participants advocated for peers and people with lived

experience to be hired to respond with paramedics when they are attending a drug overdose call.

At the centre of the drug poisoning crisis lies the criminalization of PWUD and the toxic unregulated drug supply. Without broad-scale policy changes to these factors, the drug poisoning crisis will continue to worsen and become increasingly complex to manage.[231] Complete legalization of drugs is required to better support PWUD and address the barriers to care and services that currently exist. While certain jurisdictions in Canada have decriminalized drugs (British Columbia[232]), there are restrictions on the drug quantity a person can be in possession of to qualify for this exemption. This is concerning, as it villainizes PWUD and low-level drug dealers, who participants clearly denoted are often one and the same. Thus, while legalization is necessary, changes to the *Good Samaritan Drug Overdose Act*[99] should be enacted immediately. This includes removing the exceptions currently written into the legislation and amending the wording of the *Act* to ensure there is less flexibility for law enforcement when responding to overdose emergency calls, as participants clearly described being targeted, arrested, and charged at the scene of an overdose despite this *Act*.

Portugal was offered by some participants as an example of successfully implementing drug decriminalization. In 2001, possession of and using unregulated drugs in Portugal was prohibited through administrative violations, not criminal charges or sanctions. Drug trafficking continued to be a criminal offence.[233] Over the next few years, drug use in Portugal decreased when compared to other European countries, particularly among youth. Amongst those who were 13-15 years old, lifetime drug use prevalence rates decreased from 14.1% in 2001 to 10.6% in 2006. Amongst those who

were 16-18 years old, lifetime drug use prevalence rates decreased from 27.6% in 2001 to 21.6% in 2006.[233] Arrests and sanctions related to drug use also dropped drastically.[234] However, in 2008, the Supreme Court of Justice ruled that trafficking and personal drug use should be delineated through a person being in possession of more (trafficking) or less (personal use) than ten days' worth of unregulated drugs.[234] This ruling has had a devastating impact on drug decriminalization in Portugal:

> Portugal has an increasing number of people criminally sanctioned – some with prison terms – for drug use. Regarding criminal sanctions, in 2019, among the convictions under the Drug Law (1883 individuals), drug use (42%) was the second most common, behind drug dealing (58%); no one has been sanctioned for dealing-using. Before 2008, reflecting the decriminalization law, sentences for drug use were almost non-existent.[234] (p. 7)

This example reinforces the need for more comprehensive political and legal action regarding unregulated drug use, inclusive of complete drug decriminalization and regulation that aligns with the culture of PWUD.

Indeed, a regulated supply of drugs is urgently needed. Currently, safer supply programs exist to provide PWUD with pharmaceutical-grade prescription medication to replace the toxic unregulated drug supply.[235] As mentioned previously, these programs have seen great success, with a local program evaluation finding that 70% of participants decreased their fentanyl use at program follow-up.[47] Further, of those participants who reported experiencing drug overdoses at program intake, 81% reported no overdoses at their most recent follow-up appointment.[47] However, there are limitations to these programs. Participants reported concerns including restrictive program practices, inadequate dosing of drugs, and insufficient drug type options.[47,236] Further, program access is extremely restricted, as there are a limited number of pilot programs funded across the country, many of which are set to run out of funding in the

next year.[5,237,238] Ending drug prohibition and regulating all drugs are seen as crucial steps to ending the war on drugs by national and international drug policy experts.[36,204,231,239]

Chapter 7 – Conclusion

"Why should we be content to understand the world instead of trying to change it?"

Karl Marx

The current drug poisoning crisis in Canada is a 'wicked problem'[240] – there exists deep, complex roots to this crisis which have given rise to the war on drugs and ongoing violence against PWUD. There is no singular solution, and ultimately this crisis arises alongside other inequities and problems: racism, capitalism, sexism. Despite this, PWUD, activists, and advocates continue to do important work pushing for widespread policy change and bringing forth important solutions in the hopes of beginning to address this crisis. The concept for this research project arose from conversations with PWUD and peers about the distressing experiences they were having when responding to drug overdoses in their homes, alleyways, trap houses, and other places without access to help or support. They were forced to navigate these complex medical emergencies of loved ones and their community within the confines of their own marginalization and criminalization. Programs such as SCS, medicalized safer supply, and take-home naloxone have been important to scale up; however, they essentially serve as a band-aid solution to a much more insidious problem.

Given that the vast majority of opioid-related deaths in Ontario occur in private residences (72.4%), outdoors (8.1%), or in hotels/motels/inns (7.4%)[56], this became an essential problem to explore further. The World Health Organization has also confirmed that most opioid overdoses occur either at home or in the community, with bystanders most commonly being other PWUD, peers, or friends and family members.[19] The literature review revealed a number of studies focused on speaking with peers who had

witnessed and responded to unregulated drug overdoses in harm reduction or other settings they were employed in, as well as reviews of overdose response training initiatives and subsequent outcomes for peers. However, minimal research was uncovered which examined the experience of responding to a drug overdose in the community, particularly from the perspective of PWUD themselves.

The theoretical underpinning of Bonnie Burstow's *radical trauma* theory[1] and her *layers of trauma* framework[2], along with Maria Root's work with *insidious trauma*[128] and Johan Galtung's conceptualization of *structural violence*[129] were selected to begin to frame and conceptualize trauma arising from overdose response in the community. The epistemological stance of critical theory was used to allow for the examination of hierarchies and inequitable social structures from a lens of social justice. Further, critical theory aligns with the idea of placing value in different types of expertise outside of the traditional realms of academia and research, such as the expert personal knowledge held by PWUD.[24,25] The use of qualitative research methods through an IPA methodological approach was chosen to support the exploration of how research participants make sense of and understand their experience of acting as an overdose responder.[162,166] Hearing the stories and voices of research participants allowed them the space needed to explore their individual histories, the trauma of overdose response, and the resultant personal and community impacts stemming from this distinctive yet recurrent experience.

To this end, 20 PWUD and peers completed questionnaires and semi-structured interviews in August 2021 with our research team. Findings encapsulated several important themes, including 1) labour, 2) citizenship, 3) trauma, 4) current services and

supports, and 5) envisioning the future. Participants described the invisible labour of engaging in community overdose response to help their peers, including the expertise and ingenuity they acquired through saving lives. They also described intense bonds and closeness with one another, which were reinforced through rules of social engagement and a sense of moral duty. Importantly, much of this empathy and group belonging arose from shared experiences of overdose due to the toxic unregulated drug supply. Given these traumatic shared experiences, participants recounted the unending barrage of grief and loss repeatedly felt from the impact of friends and family dying from a drug overdose, or death as a result of the toxic unregulated drug supply. Given the state of the unregulated drug supply, death from consuming these drugs is more appropriately classified as a drug poisoning (exposure to toxic substances resulting in adverse effects) rather than a drug overdose (consuming too much of a known substance) – PWUD have no way of truly knowing what they are consuming.

Deficits and gaps that exist within current services and supports for PWUD were discussed, with a particular focus on how programs limit access to care as well as the shared experience of police violence. Importantly, participants provided thoughtful reflections about how they would envision the future of their community, including their recommendations to better support PWUD within the context of the poisoned unregulated drug supply. Primarily, participants emphasized the need for PWUD to be directly involved and lead the creation and implementation of clinical, policy, research, and other decisions which impact their community. Ongoing evaluations of the barriers and facilitators to current services for PWUD is required, as well as the evolution of these services to match the unique needs of PWUD. There must be improved support

for PWUD who act as overdose responders, which includes access to mental health services and low-barrier access to tools and technology to support overdose response. Critically, there is a need for the decriminalization of PWUD, a regulated supply of drugs to replace the toxic unregulated supply, and changes to current laws, including the Good Samaritan Drug Overdose Act.

Ultimately, research participants shared extremely vulnerable and personal stories which have been essential to improving our comprehension of the realities of overdose response far beyond the psychological impacts we initially sought to understand. PWUD are a community that is committed to caring for one another within the context of their criminalization and marginalization. Each time they face new challenges (e.g., new toxic contaminates in the drug supply, changes to harm reduction programs and substance use services), they have an exceptional ability to adapt and consistently find ways to care for one another. In an effort to support PWUD, groups like the medical and healthcare community appropriate the solutions created by PWUD (e.g., SCS, safer supply); however, this often results in barriers to care which would not be present should PWUD themselves be implementing these concepts. This inadvertently serves to further marginalize groups of PWUD for which these programs are not impactful, resulting in their further rejection and stigma. Ultimately, the need for constant ingenuity and expertise within the community of PWUD results from a desperate need to care for themselves in ways that those outside of their community will not. While PWUD are a group essential to saving lives, we must not forget that this heroism is due to the paralysis and failure of the government and other institutions to act in the midst of this drug poisoning crisis.

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Appendix A – Good Samaritan Drug Overdose Act

First Session, Forty-second Parliament,
64-65-66 Elizabeth II, 2015-2016-2017

Première session, quarante-deuxième législature,
64-65-66 Elizabeth II, 2015-2016-2017

STATUTES OF CANADA 2017

LOIS DU CANADA (2017)

CHAPTER 4

CHAPITRE 4

An Act to amend the Controlled Drugs and Substances Act (assistance — drug overdose)

Loi modifiant la Loi réglementant certaines drogues et autres substances (aide lors de surdose)

ASSENTED TO

MAY 4, 2017

BILL C-224

SANCTIONNÉE

LE 4 MAI 2017

PROJET DE LOI C-224

SUMMARY

This enactment amends the *Controlled Drugs and Substances Act* in order to exempt from charges for possession or charges related to the violation of certain conditions or orders a person who seeks emergency medical or law enforcement assistance for themselves or another person following overdosing on a controlled substance.

SOMMAIRE

Le texte modifie la *Loi réglementant certaines drogues et autres substances* afin de prévoir que la personne qui demande, de toute urgence, l'intervention de professionnels de la santé ou d'agents d'application de la loi dans une situation où cette personne ou une autre personne est victime d'une surdose par suite de l'introduction d'une substance désignée ne peut pas être accusée de possession de substances désignées ou d'une infraction en lien avec la violation de certaines conditions ou ordonnances.

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http://www.parl.gc.ca

CHAPTER 4

An Act to amend the Controlled Drugs and Substances Act (assistance — drug overdose)

[*Assented to 4th May, 2017*]

Her Majesty, by and with the advice and consent of the Senate and House of Commons of Canada, enacts as follows:

Short Title

Short Title

1 This Act may be cited as the *Good Samaritan Drug Overdose Act*.

1996, c. 19

Controlled Drugs and Substances Act

2 The *Controlled Drugs and Substances Act* is amended by adding the following after section 4:

Definition of overdose

4.1 (1) For the purposes of this section, *overdose* means a physiological event induced by the introduction of a controlled substance into the body of a person that results in a life-threatening situation and that a reasonable person would believe requires emergency medical or law enforcement assistance.

Exemption from possession of substance charges

(2) No one who seeks emergency medical or law enforcement assistance because that person, or another person, is suffering from an overdose is to be charged or convicted under subsection 4(1) if the evidence in support of that offence was obtained or discovered as a result of that person having sought assistance or having remained at the scene.

CHAPITRE 4

Loi modifiant la Loi réglementant certaines drogues et autres substances (aide lors de surdose)

[*Sanctionnée le 4 mai 2017*]

Sa Majesté, sur l'avis et avec le consentement du Sénat et de la Chambre des communes du Canada, édicte :

Titre abrégé

Titre abrégé

1 *Loi sur les bons samaritains secourant les victimes de surdose*.

1996, ch. 19

Loi réglementant certaines drogues et autres substances

2 La *Loi réglementant certaines drogues et autres substances* est modifiée par adjonction, après l'article 4, de ce qui suit :

Définition de surdose

4.1 (1) Pour l'application du présent article, *surdose* s'entend d'un phénomène physiologique attribuable à l'introduction d'une substance désignée dans le corps d'une personne qui met la vie de celle-ci en danger et à l'égard duquel il y a des motifs raisonnables de croire que l'intervention de professionnels de la santé ou d'agents d'application de la loi est nécessaire de toute urgence.

Exemption — accusation de possession de substances

(2) Quiconque demande, de toute urgence, l'intervention de professionnels de la santé ou d'agents d'application de la loi parce que lui-même ou une autre personne est victime d'une surdose ne peut être accusé ou déclaré coupable d'une infraction prévue au paragraphe 4(1) si la preuve à l'appui de cette infraction a été obtenue ou découverte du fait qu'il a demandé de l'aide ou est resté sur les lieux.

Precision

(3) The exemption under subsection (2) also applies to any person, including the person suffering from the overdose, who is at the scene upon the arrival of the emergency medical or law enforcement assistance.

Exemption — violation of conditions or orders

(4) No one who seeks emergency medical or law enforcement assistance because that person, or another person, is suffering from an overdose, or who is at the scene upon the arrival of the assistance, is to be charged with an offence concerning a violation of a pre-trial release, probation order, conditional sentence or parole relating to an offence under subsection 4(1) if the evidence in support of that offence was obtained or discovered as a result of that person having sought assistance or having remained at the scene.

Precision

(5) Any condition of a person's pre-trial release, probation order, conditional sentence or parole relating to an offence under subsection 4(1) that may be violated as a result of the person seeking emergency medical or law enforcement assistance for their, or another person's, overdose, or as a result of having been at the scene upon the arrival of the assistance, is deemed not to be violated.

Précision

(3) L'exemption prévue au paragraphe (2) s'applique aussi à toute personne qui se trouve sur les lieux à l'arrivée des professionnels de la santé ou des agents d'application de la loi, y compris la personne victime de la surdose.

Exemption — violation de conditions ou d'ordonnances

(4) La personne qui demande, de toute urgence, l'intervention de professionnels de la santé ou d'agents d'application de la loi parce qu'elle-même ou une autre personne est victime d'une surdose ou qui se trouve sur les lieux à l'arrivée des secours ne peut être accusée d'une infraction en lien avec la violation de conditions de mise en liberté provisoire, d'une ordonnance de probation, d'une ordonnance de sursis ou des modalités d'une libération conditionnelle relativement à une infraction prévue au paragraphe 4(1) si la preuve à l'appui de cette infraction a été obtenue ou révélée parce que cette personne a demandé du secours ou est restée sur les lieux.

Précision

(5) Est réputée n'avoir jamais eu lieu la violation, relativement à une infraction visée au paragraphe 4(1), de conditions de mise en liberté provisoire, d'une ordonnance de probation, d'une ordonnance de sursis ou des modalités d'une libération conditionnelle qui résulte du fait que la personne a demandé, de toute urgence, l'intervention de professionnels de la santé ou d'agents d'application de la loi parce qu'elle-même ou une autre personne était victime d'une surdose ou est restée sur les lieux à l'arrivée des secours.

Appendix B – Ethics Approval

25/05/2021

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

CERTIFICAT D'APPROBATION ÉTHIQUE | CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number	H-04-21-6782
Titre du projet / Project Title	Peer response to overdoses in the community: An interpretative phenomenological analysis
Type de projet / Project Type	Thèse de doctorat / Doctoral thesis
Statut du projet / Project Status	Approuvé / Approved
Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)	25/05/2021
Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)	24/05/2022

Équipe de recherche / Research Team

Chercheur / Researcher	Affiliation	Role
Marlene HAINES	École des sciences infirmières / School of Nursing	Chercheur Principal / Principal Investigator
Patrick O'BYRNE	École des sciences infirmières / School of Nursing	Superviseur / Supervisor

Conditions spéciales ou commentaires / Special conditions or comments

550, rue Cumberland, pièce 154 550 Cumberland Street, Room 154
Ottawa (Ontario) K1N 6N5 Canada Ottawa, Ontario K1N 6N5 Canada

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Appendix C – Recruitment Documents

Appendix D – Consent Forms

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Consent Form

Title of the study: Peer response to overdoses in the community: An interpretative phenomenological analysis

Researchers:

Marlene Haines (PhD Candidate)
Faculty of Health Sciences, School of Nursing, University of Ottawa
[redacted]

Dr. Patrick O'Byrne (Full Professor – Doctoral Thesis Supervisor)
Faculty of Health Sciences, School of Nursing, University of Ottawa
[redacted]

Université d'Ottawa
Faculté des sciences de la santé
École des sciences infirmières

University of Ottawa
Faculty of Health Sciences
School of Nursing

Invitation to Participate: I am invited to participate in the abovementioned research study conducted by Marlene Haines as part of her doctoral (PhD) thesis, under the supervision of Dr. Patrick O'Byrne.

Purpose of the Study: The purpose of the study is to understand the experience of responding to an overdose of a peer and/or friend in the community or at home, outside of harm reduction and healthcare services. The researchers hope to better understand the mental distress and trauma that likely arise from responding to overdoses, as well as understand the necessary changes that are required for peers and people who use drugs (PWUD) to feel supported in their overdose response.

Participation: My participation will consist essentially of a 30–60-minute recorded interview during which I will discuss my experiences of responding to overdoses in the community. The interview will be scheduled at a place and time of my choosing. I will also be asked to complete a questionnaire which will take 5–10 minutes.

Risks: My participation in this study will entail that I volunteer information about myself and my experiences in responding to overdoses, which may cause me to feel some emotional distress and/or discomfort. I have received assurance from the researcher that every effort will be made to minimize these risks. I understand I may choose not to answer questions or leave the interview at any time.

Benefits: My participation in this study will assist in uncovering the current gaps in support for PWUD and peers who respond to overdoses in the community and at home. Recommendations may be revealed that will help to inform the development of policies, laws, and resources to support and encourage peers to maximize their crucial involvement in the overdose crisis.

Confidentiality and anonymity: I have received assurance from the researchers that the information I will share will remain strictly confidential. I understand that the contents will be used only for this research study, and that my confidentiality will be protected through all research data being stored solely on Marlene's encrypted and password protected laptop. Further, data will be de-identified to protect my identity. Any fieldnotes or physical written information will be kept locked in a combination locked cupboard inside of Dr. O'Byrne's locked office at the University of Ottawa.

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451 Smyth
Ottawa ON K1H 8M5 Canada

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Anonymity will be protected through the use of individual participant codes (e.g., P1, P2, P3) to avoid the use of names. The list of participants and their corresponding codes will be maintained on a password protected document and kept on Marlene Haines' encrypted and password protected laptop.

I understand that my identity and the information I share with the research team is kept strictly confidential except under exceptional circumstances when the researchers must report to the appropriate authority. This includes:

1) If the researchers suspect that a child is at risk of emotional or physical harm or neglect, they are obligated under the Child and Family Services Act to report this information.
2) If I become suicidal, homicidal, or are unable to take care of myself due to a psychiatric condition, I may be held against my will to be assessed by a psychiatrist.
3) If I reveal to the staff that I intend to harm another person, they are obliged to protect that person by notifying the appropriate authority.

Conservation of data: The data collected over the course of the research study will be kept in a secure manner on Marlene Haines' encrypted and password protected laptop, which only Marlene Haines and Dr. Patrick O'Byrne know the password to. Any fieldnotes or physical written information will be kept locked in a combination locked cupboard inside of Dr. Patrick O'Byrne's locked office at the University of Ottawa. This data will be kept for 5 years. Following this, all electronic research data and information will be securely deleted.

Compensation: I will be compensated $50 cash for my participation in this research study. If I choose to withdraw from the study, I will still receive this compensation.

☐ I received $50 for participating in this study.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be used by the researchers for the purposes of the study unless I request for my data to be withdrawn and destroyed. No information will be collected after I withdraw my permission.

Acceptance: I, _____, agree to participate in the above research study conducted by Marlene Haines and Dr. Patrick O'Byrne of the Faculty of Health Sciences, School of Nursing at the University of Ottawa.

If I have any questions about the study, I may contact the researcher or her supervisor.

If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5 (ethics@uottawa.ca 613-562-5387).

There are two copies of the consent form, one of which is mine to keep.

Participant's signature: _____ Date: _____

Researcher's signature: _____ Date: _____

Appendix E – Questionnaire

1) How old are you?

2) Which of the following best describes your racial or ethnic identity? Check all that apply.

- First Nations
- Inuk
- Métis
- South Asian (e.g. Indo-Caribbean, East Indian, Pakistani, Punjabi, Sri-Lankan, Bangladeshi, Nepali)
- Southeast Asian (e.g. Chinese, Japanese, Korean, Vietnamese, Cambodian, Indonesian, Filipino)
- Latin-American (e.g. Mexican, Central/South American)
- Arab/West Asian/North African (e.g. Armenian, Egyptian, Iranian, Lebanese, Moroccan)
- White (e.g. British, French, German, etc.)
- Black (e.g. African, Caribbean, Black Canadian, etc.)
- Mixed race
- I prefer not to answer
- I don't know
- Other (please specify)

3) You identify yourself as a:

- Cis man (male born as a male)
- Trans man (female to male)
- Cis woman (female born as a female)
- Trans woman (male to female)
- Gender non-conforming/genderqueer
- Intersex
- I prefer not to answer
- I don't know
- Other (please specify)

4) Which of these common terms best describes your sexual orientation?

- Gay
- Lesbian
- Asexual
- Straight (heterosexual)
- Bi (bisexual)
- Pansexual
- Queer
- Heteroflexible
- I prefer not to answer
- I don't know
- I prefer to self-describe as:

5) How would you describe your current housing environment:

- Stable
- Unstable
- Shelter
- Encampments/tents
- Other:

6) What was your household income last year from all sources before taxes?

- $0 to $19,999 per year
- $20,000 to $39,999 per year
- $40,000 to $74,999 per year
- $75,000 or more per year
- I prefer not to answer
- I don't know

7) What best describes your current employment status? Choose only one.

- Employed full-time (taxable income) (30 hours or more per week)
- Employed part-time (taxable income) (less than 30 hours per week)
- On government assistance (Ontario Works, Ontario Disability Supports Program)
- Full-time post-secondary student
- Part-time post-secondary student
- Self-employed
- Unemployed but seeking work

- Unemployed (retired/permanently unable to work)
- I prefer not to answer
- I don't know

8) What is the highest level of education you completed? Choose only one.

- Less than high school
- High school diploma or GED
- College/Technical/Trade school
- Bachelor's Degree
- Master's Degree
- Professional Degree – MD, LLB etc.
- Doctorate
- I prefer not to answer
- I don't know

9) In your lifetime, which of the following substances have you ever used?

- Cocaine
- Crack cocaine
- Crystal meth
- Heroin
- Fentanyl
- Dilaudid
- Other opioids for non-medical use (e.g., codeine, morphine, oxycodone, etc.)

- Benzodiazepines
- Alcohol
- Cannabis (weed)
- Prescription stimulants for non-medical use (Ritalin, Concerta, Dexedrine, Adderall, etc.)
- Inhalants (poppers, nitrous oxide, glue, gas, paint thinner, etc.)
- Hallucinogens (ecstasy, E, LSD, acid, Special K, PCP, mushrooms, etc.)
- Anabolic steroids
- I prefer not to answer

10) Have you had (or have) any of the following complications from illicit substance use?

- Abscesses or skin infections
- Frequent overdoses
- Hospital visits
- Endocarditis
- HIV
- Hep C
- Legal Issues
- I prefer not to answer
- Other

11) Where do you normally use substances?

- Supervised consumption site
- At my house or my peer's house
- In public
- In a shelter
- I prefer not to answer
- Other

12) Do you access any of the following supervised consumption sites (SCS)? Select all that apply.

- Trailer (Ottawa Inner City Health)
- Ottawa Public Health
- Somerset West Community Health Centre
- Sandy Hill Community Health Centre?
- Other (e.g., illicit and/or peer run SCS, SCS in a different city, etc.)

13) Normally, I use substances...

- Always alone
- Usually alone
- Sometimes alone, sometimes with peers
- Usually with peers
- Always with peers

14) In the past 3 months, how many times have you responded to an overdose of a friend or peer?

15) Do you carry naloxone (narcan)?

- Yes
- Usually
- Sometimes
- No

16) Why do you carry (or not carry) naloxone (narcan)?

17) Do you access any of the following harm reduction services?

- Sterile site distribution
- Take home naloxone (narcan)
- Needle exchange
- Condoms/contraceptives
- Peer outreach
- STI testing
- Education (on sex work, infection prevention, overdose prevention, etc.)
- Infectious disease testing/prevention (e.g., TB, STI, HIV, vaccines, Hep A/B/C, etc.)
- Other

Appendix F – Qualitative Interview Probes

1. Overdose Experiences

- When have you witnessed an overdose in the community?
    - Can you describe an experience in detail? Talk me through it from start to finish.
    - How long did the situation last?
    - Where did this situation take place (e.g., at home, in a park, in the shelter, etc.)?
- How often have you responded to overdoses?
- Do you ever use a supervised consumption site?
    - If yes, has this impacted your experience of overdose resuscitation?

2. Overdose Assessment

- How do you know someone is overdosing?
    - What tells you that someone may need help/resuscitation?
- Do you normally call emergency services during an overdose?
    - If no, why not?
    - If yes, what do you say to them?
        - Do you stay until they arrive, or leave?
        - What makes you feel comfortable to call?
        - At what point in an overdose situation do you call?
- What makes you decide to act/not act during an overdose?
- Have you taken part in peer overdose training?

- If yes, did you find this useful?
- Where did you take the training?

3. Good Samaritan Act

- Are you aware of the Good Samaritan Drug Overdose Act?
  - If yes, what do you think about it?
  - If no, read over Act, explain its purpose, and discuss with participant
- Has the Good Samaritan Drug Overdose Act changed the way you respond to overdoses?
  - Do you call for emergency services more often because of it?
  - Is it useful to you?
  - Do you feel protected by the Act?
- If you were going to propose amendments to the Act, what would they be?

4. Emergency Service Support

- During an overdose, do you feel as though you can ask for help from:
  - A paramedic
  - A police officer
  - A shelter worker
  - A nurse

5. Relationship

- Why were you with the person who was overdosing (e.g., using together, selling them drugs, living together, etc.)?
- How did you feel seeing this person overdose?
- Did you feel it changed your relationship at all?

6. Equipment/Techniques Used

- What was your first step in reversing the overdose?
- Did you start with stimulation (e.g., physical touch, loud speech, cold water)?
    - If yes, did this work?
        - Why did you choose to start with this?
- Did you use naloxone to reverse the overdose?
    - If yes, did this work?
        - When did you decide to use it?
        - How much did you use?
        - How did you decide what route to use (e.g., nasal or IM)?
        - Where did you get your naloxone (e.g., pharmacy, supervised consumption site, needle exchange, friends, etc.)?
        - How much naloxone do you keep with you?
        - Where do you keep your naloxone?
- Did you use oxygen to reverse the overdose?
    - If yes, did this work?
        - Where did you get this from?
        - What made you decide to use this?

- Were there any other equipment/techniques you used (e.g., pulse ox, ambu bag, CPR)?

7. Psychological Trauma

- Are there stressors associated with responding to an overdose in the community?
- Was it stressful/worrisome?
- Do you feel as though you have any supports to help cope with these stressors?

8. Drug Use and Overdose Changes

- Since the arrival of purple heroin in Ottawa (~summer 2016), has overdose response in the community changed (e.g., using more naloxone, more calls for emergency services)?
    - Do you think people are overdosing the same amount, more, or less?
- Has witnessing and responding to overdoses changed your drug use practices?
    - Do you use supervised consumption sites?
    - Do you use in a group?
    - Do you carry naloxone more than you did before?

9. Overdose Response Supports

- We recognize there are currently very few supports for PWUD who respond to overdoses in the community. We also recognize that this can be a very traumatic

and scary event. What do you feel would help you feel supported in your overdose response efforts?

- What would you want policy makers to know about this topic?
- What research would you want to be done to investigate this topic further?
- What supports do you wish you could access?
- What supports do you wish existed?

Appendix G – Questionnaire Results

Table 1. Baseline demographic characteristics of research participants

Characteristics	Participants (n = 20)
Age (years)	38 (33.5 – 45)
Self-identified gender	
Male	10 (50%)
Female	9 (45%)
Other	1 (5%)
Ethnicity	
White	10 (50%)
Indigenous	6 (30%)
Black	2 (10%)
Other	2 (10%)
Sexual orientation	
Heterosexual	11 (55%)
Bisexual	4 (20%)
Other	5 (25%)
Housing status	
Shelter	6 (30%)
Street/sleeping outside	5 (25%)
Stable	4 (20%)
Unstable	4 (20%)
Encampment/tent	1 (5%)

Employment status	
Government assistance	9 (45%)
Self-employed	6 (30%)
Other	3 (15%)
Full-time	2 (10%)
Highest level of education	
Less than high school	8 (40%)
High school	7 (35%)
College	3 (15%)
University	2 (10%)

Data are expressed as median (IQR) for continuous variables and number of participants (%) for categorical variables.

Table 2. Substance use among participants

Lifetime Drug Use	Participants (n = 20)
Cocaine	20 (100%)
Cannabis	20 (100%)
Crack cocaine	19 (95%)
Crystal methamphetamine	19 (95%)
Hydromorphone	19 (95%)
Alcohol	19 (95%)
Diacetylmorphine (heroin)	18 (90%)
Fentanyl	18 (90%)
Other opioids	18 (90%)
Prescription stimulants	17 (85%)

Hallucinogens	17 (85%)
Benzodiazepines	15 (75%)
Inhalants	8 (40%)
Anabolic steroids	3 (15%)

Data are expressed as number of participants (%) for categorical variables.

Table 3. Unregulated substance use complications (lifetime)

Complication	Participants (n = 20)
Frequent overdoses	18 (90%)
Criminalized behaviour	17 (85%)
Abscesses or skin infections	17 (85%)
Hospital visits	17 (85%)
Hepatitis C	14 (70%)
Endocarditis	5 (25%)
HIV	4 (20%)

Data are expressed as number of participants (%) for categorical variables.

Table 4. Drug use locations

Location	Participants (n = 20)
Supervised consumption site	18 (90%)
Home/someone else's home	18 (90%)
Public/outside	18 (90%)
Shelter	17 (85%)

Data are expressed as number of participants (%) for categorical variables.

Table 5. Harm reduction service usage

Service	Participants (n = 20)
Supervised consumption sites	
Ottawa Inner City Health	18 (90%)
Ottawa Public Health	16 (80%)
Somerset West CHC	15 (75%)
Sandy Hill CHC	14 (70%)
Harm reduction services	
Sterile site distribution	18 (90%)
Take home naloxone	18 (90%)
Needle exchange	17 (85%)
Peer services/outreach	17 (85%)
Condoms/contraceptives	15 (75%)
STBBI testing	15 (75%)
Infectious disease services[a]	15 (75%)
Education[b]	12 (60%)

Data are expressed as number of participants (%) for categorical variables.

[a]Infectious disease testing/prevention (e.g., TB, STI, HIV, vaccines, Hep A/B/C, etc.)

[b]Education on sex work, infection prevention, overdose prevention, etc.

Table 6. Overdose risk/response

	Participants (n = 20)
Normally, I use substances:	
Always alone	2 (10%)

Usually alone	1 (5%)
Sometimes alone, sometimes with peers	14 (70%)
Usually with peers	3 (15%)
Always with peers	0
Do you carry naloxone?	
Yes	8 (40%)
Usually	6 (30%)
Sometimes	4 (20%)
No	2 (10%)
Number of overdoses responded to (past 3 months)	3.75 (2.5 – 7.5)

Data are expressed as median (IQR) for continuous variables and number of participants (%) for categorical variables.