Chemsex among HIV positive gay, bisexual, and men who have sex with men: Exploring the intersections between sero-status, mental health, substance use, and addiction.

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Abstract

The use of amphetamines and other dissociative substances to facilitate sexual contact is part of a growing phenomenon among some groups of gay, bisexual, and other men who have sex with men (GBMSM) – particularly, those living with HIV. Colloquially known as “chemsex”, this practice is commonly discussed in extant literature in terms of its purported risks; less however, is known about the rewards this practice holds for those who participate and the motivations for engagement among HIV positive GBMSM as a unique subculture. To address gaps in nursing knowledge related to chemsex engagement among GBMSM living with HIV, critical qualitative research was undertaken. The objectives of this study were to (1) identify the dynamics, values, behaviours, and beliefs of HIV positive GBMSM engaging in chemsex; and (2) examine the effect of chemsex on the healthcare needs and risk-taking behaviours to improve overall health outcomes for this group. This research employed a critical ethnographic methodological approach using interviews as the main form of observation. Findings revealed that motivations for chemsex initiation were primarily fueled by a desire for change – particularly with respect to HIV subjectivity and mental health challenges. Within the world of chemsex, these men had the opportunity to become alternate versions of themselves and to live and participate freely and without restrictions. Chemsex subcultures were, however, also marked by a distinct set of norms (rules, values, behaviours) that marked participation. Depending on their position in a given moment in time, these norms would vary between pleasure, subjectivity, and tension. Despite the variability in their experiences, chemsex subcultures ultimately provided a sense of community to these participants. These were spaces in which they felt accepted, loved, cherished – and would go to any length to maintain the health and wellbeing of their peers. These findings suggest a depth to chemsex engagement among HIV positive GBMSM that should be met in nursing practice with flexibility. That is, future initiatives must be shaped by patient needs (and not what nurses think they require) and must acknowledge the variability in experiences of this subculture.

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This is dedicated to the important people who have supported me unconditionally. To my best friend – thank you for your unwavering belief in me and for being a constant source of strength within the flux. Your presence means the world. Most importantly, to my parents – thank you for being the grounding force in my every transformation and the spark that reminds me the possible is always within reach. You have given me everything and I would be nothing without you.

List of Figures

Table of Contents

CHAPTER ONE: INTRODUCTION AND RESEARCH PROBLEM

"*Making love is not just becoming as one, or even two, but becoming as a hundred thousand*."

– Gilles Deleuze

Introduction

Sex, pleasure, and desire do not occur in isolation. They are formed and informed by one another and when perfectly aligned, can produce the effects of a hundred thousand culminating as one: the climax. Indeed, man can search a lifetime for this quintessential apex, so when they finally find it, they do not want to relinquish it. It is this feeling that captures the experience of *chemical sex*, or chemsex, where carnality, lust, and indulgence are amplified by the dissociative effects of amphetamine use. The synergistic effects of sexual desire combined with stimulation of the central nervous system produce a seemingly unremitting climax that leaves one in a state of physical and mental euphoria. Within this chemsex rapture, men are transported to an underworld where time is not static and yearning knows no bounds – and when reality begins to peer into view, can easily be suppressed with another hit of chems or a new body to play with.

However, as the classic proverb states, 'all good things must come to an end', and as night blurs into day, days roll into weekends, drug supplies run short, and appendages eventually become listless, chemsex elation is often replaced by a corporeal desolation. The previously excitable cerebrum, overflowing with dopamine, desiccates and is replaced with feelings of irritability, anxiety, listlessness, depression, and paranoia. To accelerate the healing process, man seeks refuge in substances, which restores their body to its former pleasure-filled and desire-fueled state. Again, another weekend flashes in a haze of sweat, ejaculate, and chemical smoke, and they are left in the same desolate position they began. This cycle repeats itself on a loop. For some, it ends when they seek assistance; however, for many others, the (r)evolution continues.

In this study of chemsex among HIV positive gay, bisexual, and other men who have sex with men (GBMSM), readers will be transported to an underworld of lust, love, strife, and personal *becoming* as the intimate workings of this subculture are explored. This chapter describes the research problem, focusing on the more normative perspectives that have shaped the overlapping experiences of HIV subjectivity, mental health, substance use, and addiction in relation to chemsex. Following this, the research objectives, research questions, and an explanation of the guiding epistemological perspective for this research are provided. Chapter two details a review of the relevant literature on the topic of chemsex and chapter three describes the theoretical approach underpinning this research project. Chapter four explains the methodological approach. Chapter five presents the research findings, chapter six presents an examination and discussions of these findings, and the final section concludes the research study and this dissertation.

Research Problem

While recreational substance use occurs commonplace in many GBMSM cultures[1,2], there has been a recent shift in practice among some subsets of GBMSM from the communal public circuit parties (and use of 'club drugs', such as ecstasy and cocaine) toward a more radical underground form of sexualized drug use, known as *chemical sex* or *'chemsex'* – or more colloquially, as '*Party-n-Play'* (*PnP*) in some GBMSM circles[1-4]. The chemsex phenomenon refers to the use of amphetamine-class drugs, primarily crystal methamphetamine (herein: crystal meth) in Canada, and engagement in sexual activity by certain groups of GBMSM[5]. The focus of this research is on the sub-groups living with HIV, who are reported to account for an elevated proportion of chemsex participation[6,7]. The impetus for chemsex engagement among HIV positive GBMSM is multifactorial, however, in this work, it will be explored in view of the intersecting experiences of HIV subjectivity, mental health, substance use, and addiction. While literature does exist describing the independent factors related to chemsex, there is limited data to explain the overlapping effects for GBMSM living with HIV or the intricacies of chemsex subcultures, including the normative values and behaviours of this group and its impact on overall well-being.

Current medical perspectives classify crystal meth as a “highly addictive” substance[8,p.147]. In the context of chemsex, there is an important distinction on this view, where dependence is characterized by a two-fold experience[8,9]: (1) neurologic – when cerebral activity of dopamine, serotonin, and norepinephrine (the pleasure centres of the brain) are stimulated, causing increased confidence and mental alertness; and (2) connective – when intimate sensations and sex drive are amplified, resulting in heightened levels of arousal and production of unpredictable experiences of pleasure for its consumers, which can extend beyond an ejaculatory response.

Chemsex initiation is often characterized by bouts of intense intermittent amphetamine use by groups of GBMSM. Also known as ‘weekend warriors’, GBMSM will attend bathhouses, parks, sex clubs, or PnP events (hosted in public spaces or private homes), or cruise social media applications for casual sexual encounters (‘hook-ups’) from late Friday afternoon to early Monday morning and return to routine obligations (e.g., work, home, social) during the week[10-12]. The level of participation differs depending on the individual; some will engage in chemsex occasionally or exclusively on the weekends, while others might find their cycles of chemsex use becoming longer and more frequent over time[13]. As part of chemsex activities, GBMSM will consume crystal meth or other amphetamine-type drugs orally or via injection, inhalation, insufflation or intrarectal insertion; the use of prescription medications typically indicated for the treatment of erectile dysfunction may also be used to enhance sexual performance for prolonged periods of time[12]. Activities in the context of chemsex can include – but are not limited to – oral sex, anal sex, genital sex, or even intimate touch or frottage, and occur either one-on-one or in small or large groups, depending on the setting, mood, or urges of GBMSM participants[10,11]. Others might attend chemsex parties, not to directly participate in sexual activities, but to consume drugs, socialize, cruise for sexual or romantic partners, or to observe the intimacies of others[10].

The euphoric highs produced through the combination of the manufactured chemicals and shared sexual desires make chemsex a celebrated space of community, particularly for GBMSM living with HIV. Indeed, because GBMSM account for the highest proportion of HIV diagnoses per

annum in Canada[14], they are often unequally burdened by issues related to its long-term management. While HIV treatment offer improved physical health outcomes, internal beliefs[15,16], such as the experience of loss, guilt, or shame over an HIV diagnosis, can complicate how GBMSM living with HIV adhere to the rigid medical and public health guidelines on infectious diseases care. Specifically, healthcare providers and regulators (including nurses) advise strict antiretroviral use, routine testing of HIV markers and sexually transmitted infections (STIs), and consistent condom use to be considered 'well managed' and thus, outside of the purview of public health interest and their preoccupation with undetectability and mitigating risk to others[17,18]. Further compounding an HIV diagnosis, is the experience of certain psychosocial obstacles[19], such as HIV-related trauma or stigma, which can put GBMSM at risk of mental health, substance use, or addiction issues. Thus, while a regulated approach to HIV management through strict adherence is considered a pragmatic way to reduce onward HIV transmission at a *population* level[18], it tends to overlook the individual realities of living with a highly stigmatized illness, such as HIV. These experiences can in turn, be internalized by GBMSM and effect their ability to meet the often high thresholds for HIV care[19,20] (as established by hierarchical healthcare structures).

Despite the efficacy of pharmacologic interventions to regulate the physical symptoms of HIV infection[18], comprehensive HIV care can become less effective when only aspects of virology are considered. When the emphasis of HIV management focuses only on risk reduction indicators[17] or concerns about potential HIV transmission[18] (e.g., strict antiretroviral use, viral load monitoring, condom use), then self-reported concerns regarding mental well-being, substance use, potential addiction, or level of social engagement might not be as readily addressed (if at all) during routine HIV follow-up visits. The implication of this straitened approach to HIV care can result in GBMSM having to contend with challenges secondary to their diagnosis that can make it difficult to remain engaged in such care[19,21], leaving them vulnerable to isolation, social scrutiny, or medical and/or public health surveillance.

Adding to these layered dimensions of HIV management is that GBMSM living with HIV are also noted to be susceptible to mental health issues[22], such as anxiety, depression, suicidal ideation, and post-traumatic stress disorders. While many men in this group report underlying mental health conditions, such as mood disorders, these can develop or be exacerbated in response to personal traumas or stigmas, including childhood sexual abuse[23,24], unstable upbringing[25], incidences of physical or sexual assault[24,26], loss related to the AIDS epidemic, risk practices, sexual orientation (and coinciding experiences of homophobia and/or heteronormativity), or their experience of receiving an HIV diagnosis[27,28]. These occurrences can be amplified in the subjectivities of living with HIV[21,28] – where the reliance on chemical interventions to sustain health and barrage of messaging around HIV disclosure and viral load monitoring can preclude engagement in social or sexual activities. In the context of chemsex, the ability of crystal meth to enhance mood and self-confidence[8] can facilitate the opportunity for HIV positive GBMSM to develop intimate connections with others[9,11] (sexual, romantic, personal, or a combination) they may not have otherwise felt comfortable engaging in without the use of chems.

In addition, elevated rates of substance use have been reported among HIV positive GBMSM compared to HIV-negative cohorts, with upwards of 85% reporting a lifetime history of substance use, including alcohol, stimulants (e.g., cocaine, crack, ecstasy, amphetamines), and/or depressant drugs (e.g., opiates, alcohol, or marijuana)[6,29]. While a majority of GBMSM living with HIV have engaged in some type of substance use, many do so only on occasion, such as in the case of 'weekend' chemsex use[10]. In other words, not all HIV positive gay men will develop an addiction (to crystal meth or otherwise) simply because they engage in intermittent substance use. Contrary to popular medical or public health opinions, many chemsex participants engage in these activities simply because they enjoy the high of having sex on drugs[11,30] – not because they are (or are going to become) 'addicted'. To that end, various strategies are employed to mediate the distinction between party-n-play and the everyday (obligations) – where crystal meth use is reserved for specific occasions or events or limited to certain groups of peers.

In more rare instances, chemsex participation (including crystal meth use) can result in development of addiction among GBMSM. Diagnostic criteria for stimulant addiction[31] are often characterized by unsuccessful attempts to reduce or cease use, marked cravings for stimulants, negative impact on daily activities related to stimulants use, social and/or interpersonal problems, or increased tolerance to higher amounts of stimulants. The presence of withdrawal symptoms and/or the use of other substances to counteract these effects are also considered to be indicators of a psychological dependence to crystal meth (or other stimulants)[31]. While these criteria might be used clinically to identify drug dependence in persons who are using crystal meth, in reality, the threshold for addiction might not be as equivocal as current medial or public health discussions (or warnings) about chemsex would infer. In particular, anti-substance use advocates[30] tend to view crystal meth use as synonymous with an addiction; however, these perspectives overlook the motivations and pleasures GBMSM derive from substance use. It is thus, difficult to determine if these diagnostic metrics achieve anything beyond perpetuating stigma and exclusion of HIV positive GBMSM (i.e., by viewing all people who engage in chemsex as 'addicts').

The rising popularity of chemsex among GBMSM living with HIV presents a unique challenge in nursing because, presently, perspectives on chemsex among HIV positive GBMSM are overshadowed by the (real and perceived) risks associated with this practice. Indeed, dominant medical and public health perceptions tend to overemphasize potential harms by highlighting risks[8] to the individual, such as the secondary effects of crystal meth withdrawal or long-term crystal meth use. For withdrawal effects, the focus is around the potential negative symptoms of drug discontinuation[8,32], including mood changes (e.g., depression, anhedonia, aggression), cognitive disturbances (e.g., paranoia, auditory and/or visual hallucinations, poor memory, or concentration), psychomotor impairments (e.g., seizures, tremors), and cardiopulmonary events (e.g., hypertension, stroke). While admittedly normative, these effects, along with the potential for addiction are medically relevant and can, indeed, occur with prolonged crystal meth use[8]. Combined, these outcomes may limit the ability of HIV positive GBMSM to

complete routine tasks[21,33] such as, taking HIV treatment as prescribed or engaging in routine health follow-up for HIV. This in turn, can reduce overall health outcomes[33,34] due to development of treatment resistant viral mutations, opportunistic infections, or onward HIV transmission[18,30].

The tone of this messaging, however, demonstrates an inattention to the heteroglossic experiences of HIV positive GBMSM who engage in chemsex and the inherent pleasures they derive from these practices. The primary issue of concern from a nursing perspective, is that GBMSM living with HIV who engage in chemsex are contending with intersecting experiences of HIV subjectivity, mental health, substance use, and addiction. However, from the perspective of HIV positive GBMSM, the polarizing sensations of engagement in chemsex (ranging from euphoria to withdrawal) render this practice a 'double-edged sword' – where, in spite of the known potential negative effects of chemsex, the intense social and sexual gratification it elicits becomes incentive for continued use[35,36]. The foregoing point is often overlooked in nursing discourses, where the impetus for health (and cessation of harms) dominates care, and as a result, can impede nurses' ability to appreciate the perspective of individuals who engage in such practices.

In the absence of a concrete understanding of the shared experiences of HIV positive GBMSM who engage in chemsex, nurses in HIV research and care can only provide 'patchwork' solutions for this group. Left unaddressed, the outcomes of these overlapping effects can potentially lead HIV positive GBMSM to become increasingly isolated within their health and social networks. In reality, what these men require are simultaneous strategies to address their intersecting needs based on a more robust understanding of the group dynamics and shared pleasures they derive from participating in chemsex activities in the first place. However, because current discourses in nursing research and practice are unable to address these unique experiences, the scope of nursing interventions to assist these individuals are presently limited. Indeed, the nursing interventions that are available are often focused on notions of risk posed by chemsex and crystal meth use, which overlook the pleasurable aspects described by participants, as well as their motivations for continued use. Thus, while awareness of the potential harms

associated with chemsex and crystal meth are relevant to understanding the scope of the issue at hand, the intention of this study is not to replicate public health perspectives on harm reduction. Rather, the aim of this study is to understand the factors related to engagement in chemsex and its effects on health and risk-taking behaviours among HIV positive GBMSM. Using a critical qualitative approach, the outcomes from this research will enhance current perspectives of the group dynamics and personal challenges faced by HIV positive GBMSM who engage in chemsex using the concepts of HIV subjectivity, mental health, substance use, and addiction. These insights could then be applied to help establish health and social services based on the identified needs of this group (as opposed to being based on the objectives of the socio-political and health institutions that attempt to regulate the personal subjectivities of these men).

Research Objectives

1. Identify the dynamics, values, behaviours, and beliefs of HIV positive GBMSM engaging in chemsex who are managing issues of HIV subjectivity, mental health, substance use, and addiction.
2. Examine how chemsex can affect the healthcare needs and risk-taking behaviours of this group to improve their health outcomes living with HIV.

Research Questions

1. What are the subcultural norms, dynamics, and experiences of HIV positive GBMSM with HIV subjectivity, mental health, substance use, and addiction who engage in chemsex?
2. How do subcultural group norms of HIV positive GBMSM affect health and risk-taking practices within this group?

Epistemological Stance

This study will be conducted within the critical theory paradigm. This perspective was selected because it rejects hierarchies of knowledge and thus may be beneficial to expand current understandings of HIV positive GBMSM who engage in chemsex. To situate the research and framework within this epistemological stance, a brief overview of critical theory is required.

Critical theory ontology focuses on historical realism; that is, that reality is believed to have been shaped by a variety of social, political, economic, ethnic, and gender factors which have solidified over time and accepted as true[37]. Ontologically speaking, this paradigm rejects the notion of one reality with one truth and instead, seeks to uncover the implicit truths and notions of reality of an individual or group under study[38]. Such 'truths' are established based on visible and concealed mechanisms (e.g., rules, regulations, functions, structures) that shape an individual's or group's perceptions of the world and thus, influence how life operates from within that unique point of view[38]. By revealing the social, political, and cultural structures that produce truths, researchers can discern the complex dynamics that have constructed reality (and its resulting inequalities) and use this understanding to identify areas for change or restructuring[38].

As an extension, critical theory epistemology relies on approaches that seek people's perceptions and experiences of the world to understand actions required to make change[37]. From this perspective, the type of knowledge that is sought and the ways in which knowledge is developed, constructed, and understood are created in the transactional relationship between the researcher and participants[38]. In this dynamic, knowledge is constructed through ongoing negotiation and interaction between all parties in a specific research context, as opposed to being inferred based on confirmation of a hypothesis or created through shared expressions[37]. Within a critical theory approach, findings are subjective – meaning that they are grounded in the shared values and meanings of the researcher and participants and thus reject the subject-object approaches inherent within traditional approaches to nursing research[37,38]. The result of this subject-focused mode of inquiry leads to research findings that capture specific problems faced by an individual and/or group, which can be used as the basis for future socio-political action[38].

The knowledge produced through the dialectical and dialogical methodology of critical theory raises the researchers' awareness to the social, political, and cultural structures that have impeded dominant perceptions of individuals and/or groups under study[37]. This point is particularly salient for research studies involving participants whose lived experiences often

counter mainstream beliefs about their personal values, ethics, and belief systems – particularly with respect to discourses related to health, wellness, and risk-taking behaviours and ideals[38]. As such, critical theory research is emancipatory, in that it transforms previously held misconceptions about an individual and/or group under study into a form of social inquiry that reveals the true knowledge concealed within their uniquely personal history and context[37].

This research will employ a poststructuralist stance, as a sub-type of critical theory, which aims to uncover meaning about a group under study that extends beyond its presumed social structures, or social 'veil'[39]. Poststructuralist research focuses on the structures that have shaped reality, truth, and knowledge about certain groups, examines commonly held beliefs about these persons, and reconstructs these ideas and ideals to reveal the limitations and implications of these views[40]. This type of research thus seeks to understand the construction of reality for marginalized groups, to critique 'truths' within this reality, and to counter hegemonic forces within society by generating equitable theories for alternative action[39,40]. A poststructuralist approach will be useful for this study to (1) understand views of HIV positive GBMSM who engage in chemsex and (2) challenge commonly held perceptions, as imposed by dominant social structures, to illuminate alternate forms of thinking about this particular group and their needs.

Within this poststructuralist perspective, this research will draw on the works of Deleuze and Guattari to explore the conceptualizations of knowledge and identity that form the subculture of HIV positive GBMSM who are engaging in chemsex. These works were selected as the theoretical foundation of this research as they show the subversive views of this sub-group, whose lives (living with HIV or having same sex partners), proclivity for 'risky' (non-mainstream) behaviours (e.g., chemsex, substance use, addictions), and personal strife (mental health, trauma, stigma) have been constructed in such a way that these men cease to exist within the 'norm'. As a result, HIV positive GBMSM who engage in chemsex find themselves outside the purview of what is broadly (socially) acceptable, while at the same time, find themselves inside a chemsex subculture (group) that normalizes their existence. However, tension exists between

these two worlds – of outsider and insider – which can result in these men straddling the line between social approval and rejection, desire and indifference, and attachment and isolation.

CHAPTER TWO: LITERATURE REVIEW

"*You meet men there who are to you as you are to them:*
Nothing but a body with which combinations and productions of pleasure are possible.
You cease to be imprisoned in your own face, in your own past, in your own identity."

– Michel Foucault

Current writings related to chemsex among HIV positive GBMSM identified a polarity in the constructions of risk related to this practice. This chapter will begin with an overview of the literature regarding chemsex, as well as the medical and psychosocial aspects related to the management of an HIV diagnosis, including stigma management. This review will then describe some of the potential risks associated with chemsex use from a nursing and health perspective, including possible outcomes related to condomless sex and crystal meth use. Finally, this chapter will conclude with an exploration into the establishment of chemsex subcultures, focusing on the perceived benefits of engagement from the perspective of HIV positive GBMSM, including personal pleasures, self-exploration, and semblances of community related to chemsex practices.

Chemsex: An Overview

Origins

The term 'chemsex' was coined in 2013 by the late HIV activist and researcher, David Stuart, in reference to a growing phenomenon of amphetamine use to enhance sexual activity among subsets of GBMSM in the United Kingdom[11]. While often referred to interchangeably, chemsex is noted to differ from sexualized drug use[41] – where the former refers to the use of amphetamine-class drugs (primarily crystal meth) by gay men for the express purpose of facilitating or enhancing sexual activity, while the latter refers to the general use of recreational substances during sexual contact. This upsurgence of chemsex also correlated with a shift in recreational practices for groups of GBMSM. While social events for some GBMSM in the early 2000s were characterized by large public circuit parties[3,4] (often involving stimulant use and

casual sexual encounters), the onset of chemsex in the mid 2010s and onward saw social events for other groups of GBMSM move toward smaller, more intimate gatherings specifically organized around sex and the use of certain drugs, such as amphetamines, to heighten the experience[11].

Prevalence

Current data on chemsex prevalence differs based on country and setting[42]. In the United Kingdom (where this practice was first identified), estimates range between 17 to 41% for all GBMSM[43] accessing sexual health or HIV prevention care, respectively. Among HIV positive GBMSM[43], estimates range from 4 to 33% for men accessing HIV follow-up or sexual health services, respectively. A more recent study[44] involving GBMSM who had frequented one or more of the major STI clinics in England surveyed patients on substance use practices and identified that 1 in 10 gay men and 1 in 4 HIV positive gay men reported engaging in chemsex during the study period. Additionally, results from a cross-sectional analysis in New York City, USA[45] found that GBMSM who used amphetamine class drugs, such as crystal meth, were 1.7 times more likely to be living with HIV compared to GBMSM who did not engage in substance use.

In Canada, there is limited national data available on chemsex. Canadian data from the 2017 European MSM Internet survey[46] collected information from 5,165 eligible participants. Across all provinces, 13.2% of participants reported using substances commonly associated with chemsex in the past year, of whom, 7.3% (n=373/5165) reported use of GHB and 6.1% (n=310/5165) reported use of crystal meth[46]. One fifth of participants (n=1148/5165) reported a lifetime history of chemsex and 12.4% reported engagement in the preceding year[46]. By province, the highest rates of chemsex within the preceding 6-12 months were reported in British Columbia (n=171/1191 or 14.3%), Ontario (n=232/1707 or 13.6%), and Quebec (n=97/789 or 12.3%). No data was available on the HIV status of participants who reported engagement in chemsex[46].

Provincial data on chemsex provides some additional context on the prevalence of this practice in Canada. For example, the 2018 ‘Engage’ study[47] conducted in Montreal, Quebec surveyed 1,179 GBMSM participants and found 18.7% reported having engaged in chemsex with

at least one of their sexual partners in the preceding six months, 12.6% of whom, reported being HIV positive. A more recent 2022 study[48] conducted in Montreal, Quebec found rates of chemsex among HIV-negative patients who accessed the city's major downtown sexual health clinic was 24.0%. Additional data from a 2016 study involving 719 gay men living in Vancouver, British Columbia[49] estimated rates of chemsex use among GBMSM at 19.6% for crystal meth, 19.1% for GHB, and 12% for Ketamine. Finally, unpublished data from a large cohort study (the Ontario Gay Men's Heath Survey)[50] conducted in 2018 examining healthcare access among gay men living in Ontario found rates of chemsex among HIV positive men to be approximately 10%.

Settings

Chemsex parties most often occur in private residences, such as homes or apartments, and involve a limited number of invited guests, which varies depending on the size or location of the event[10,51,52]. The general atmosphere in these spaces is described as a 'house party', where popular culture or electronic dance music is playing, and attendees are dancing or engaging in conversation[10,51,52]. In some cases, hosts will require all invitees to submit negative STI results prior to entering and in other cases, having a select group of trusted friends or acquaintances is felt to be sufficient to assuage concerns about potential STI or HIV transmission[10,51,52]. In most other instances, prophylactics, such as internal and/or external condoms, are made readily available for attendees to access at their preference[10,51,52]. Participants of chem parties usually bring their substances of choice to the events, which often are shared amongst attendees[10,51,52].

Chemsex-specific events are also held in nightclubs or private event spaces[53] (e.g., galleries, bars, etc.), where larger crowds of GBMSM congregate for group sex; much like sex parties. In most cases, these events are marketed toward gay men as a dance party or rave, where the use of chems is not specifically advertised; however, most have allocated spaces within them for sexual activity[10,52]. In addition, most of these functions combine other aspects of GBMSM sex subcultures, including BDSM, leather, and anonymous sex[11,54]. The occurrence of these

events is less documented in peer-reviewed literature, particularly in Canada; however, blog posts of gay sexcapades describe the popularity of such clubs throughout in Europe (e.g., Berlin)[55].

Outside of designated parties or events, are the more readily available means of accessing chemsex encounters, namely, the internet. Through the use of geographical applications, GBMSM can easily identify individuals in proximal range to their location who are interested in engaging in sexual contact using chems[56], which is often indicated on users' profiles (e.g., use of a snowflake or diamond emoji, emphasizing the letter "T", or indicating "PnP")[10]. Persons can then meet for one-on-one or group chemsex activities at a designated location (e.g., home, park, bathhouse). There are also websites and chatrooms specifically indicated for internet-based party-and-play[52,57], where GBMSM will livestream their consumption of chems by inhalation or injection and engage in self-pleasure or masturbation while watching others do the same. Lastly, some men prefer to take amphetamines alone and pleasure themselves while watching pornographic videos or images[10,52]. Despite the absence of one or more sex partners, the use of chems allows GBMSM to experience the enhanced pleasures of engaging in sex acts.

Substances and Administration

The following provides information on the more commonly used substances for chemsex as noted in relevant published and grey literature, including their formulations, mechanisms of action, administration, onset and duration of effects, and the potential secondary effects during use.

Crystal methamphetamine **($C_{10}H_{15}N$)**

Also known as: meth, ice, crank, Tina, glass, crystal

Crystal meth is the most commonly used substance for chemsex in Canada[10,58,59]. The drug is classified as a central nervous system stimulator, which increases synaptic and sympathetic activity of neurotransmitters and postsynaptic receptors[59]. It is primarily available in a rock or powder formation. In solid formation, crystal meth is gasified when heated[58]. The most common method of use is by inhalation through a glass pipe with a large bulbous end[10]. Solids will also dissolve into a clear liquid when mixed with sterile water and applied under heat, allowing

it to be administered parenterally[58,59]. Lastly, solids can be ground to a powder formation and insufflated through the nose (snorted)[59]. The onset of crystal meth effects can be felt within 5 to 15 minutes of administration (depending on the method) and last for 6 to 12 hours following use[59]. Side effects of crystal meth use, include nausea, decreased appetite, tachycardia, hypertension, hyperthermia, insomnia, changes in behaviour, irritability, hallucinations, and/or seizures[60].

Other Methamphetamines

Also known as: speed, bennies, uppers

In addition to crystal meth, other methamphetamine derivates, such as 'speed', can be used during chemsex. These drugs have the same chemical compound and central nervous system effects to crystal meth. Most commonly, methamphetamine variations are manufactured in tablet or capsule or white or off-white powder formulations. In tablet or capsule form, drugs are ingested orally and in powder form, drugs are insufflated through the nasal cavity. The onset of effect of methamphetamines is less than 5 minutes and lasts up to 12 hours after use. As a methamphetamine class substance, its side effects will also mimic those of crystal meth[60].

gamma-Hydroxybutyric acid or GHB **($C_4H_8O_3$)**

Also known as: GHB, G, liquid X, fantasy

GHB is another substance commonly used in chemsex. Unlike the stimulating effects of crystal meth, GHB is a central nervous depressant, which reduces the level and activities of dopamine, acetylcholine, dynorphin and serotonin[61]. This drug is manufactured as an opaque and odourless liquid[58], though it is noted to have a bitter taste when consumed. The most common method of use is to mix GHB liquid with a flavoured beverage (e.g., soda or juice) to minimize bitterness[10]. The drug can also be used intrarectally as a 'booty bump' by adding a small amount into a moulded plastic tube, which is inserted into the rectum and slowly released into the intrarectal tissue[62]. The effects of GHB begin within 10-20 minutes of administration and last for upwards of 4 hours[61]. Secondary effects of GHB use can include decreased motor skills (e.g., somnolence, slurred speech), dizziness, tactile sensitivity, and mild to severe nausea and/or

vomiting (due in part to its disinhibiting effects and the bitter taste of the drug itself)[58]. Of note, because of the high potency of GHB formulations, it is also known to be associated with an increased risk of poisoning or overdose – most commonly, due to improper dosing[58].

Amyl nitrate ($C_5H_{11}NO_2$)

Also known as: poppers, jungle juice, liquid gold, rush, purple haze, buzz

Most commonly referred to as 'poppers'[10], this drug most often contains amyl nitrate – but can be made from any number of combinations the alkyl nitrate compound[63]. Amyl nitrate is classified as a vasodilator, which acts by widening blood vessels and increasing blood flow[58], causing a rapid decrease in blood pressure and coinciding euphoric rush to the brain. The drug is manufactured as a clear or light amber coloured liquid with a viscous consistency with a distinct odour ranging from sweet to pungent[63]. Of note, this substance was initially markets as leather cleaners and room deodorizers, making it easy for users to both access and conceal[64]. The liquid is contained in a glass bottle that makes a 'popping' sound when crushed – hence its name 'poppers'[10]. As amyl nitrates belong to the same family as alkyl nitrates (including gasoline and ethanol), this drug noted to be highly flammable and volatile in its pure formation[63]. Amyl nitrate has a very short duration of action, with onset of effects within a little as 30 seconds and maximum duration ranging from 5-10 minutes[63]. The use of this substance can produce secondary effects, such as cardiac arrythmia, dizziness, nausea, headaches, and reduced sexual performance[58].

Ketamine ($C_{13}H_{16}ClNO$)

Also known as: K, special K, ket, vitamin K

Ketamine is classified as a dissociate anaesthetic that selectively interrupts cerebral sensory pathways that begins with a depersonalizing effect and ends with an analgesic, or somnolent, effect caused by a sensory block to the cerebral pathways[65]. Initially classified as a medical anaesthetic used in human and veterinary medicine and now, more commonly used to treat chronic depression in adults, Ketamine is available in the form of a colourless, odourless liquid or white or off-white coloured powder (derived from Ketamine salts)[58,65,66]. In liquid

formation, Ketamine can be injected intravenously or mixed with flavoured beverages (e.g., soda, juice, etc.)[10]. In powder formation, Ketamine can be insufflated through the nose (snorted) or smoked, often by applying a small amount of the powdered drug onto the end of a lit nicotine or marijuana cigarette[10]. The onset of Ketamine effects begins within 10 to 20 minutes of administration and can last upwards of 6 to 8 hours after use[65]. Secondary effects of ketamine use can include gastrointestinal discomfort (nausea, vomiting), diplopia, and change in cognition (e.g., somnolence, dissociation, confusion, dizziness, low mood or feelings of hopelessness)[66].

***Mephedrone* ($C_{11}H_{15}NO$)**

Also known as: M-CAT, meow meow, drone, white magic

Mephedrone is a synthetic stimulant drug that affects the central nervous system, releasing serotonin and dopamine[67]. Its chemical properties and effects are similar to the khat plant, which has stimulating effects[67]. Mephedrone is available in the form of a white to off-white solid or powder; capsule or tablet forms are also available in some cases[58,67]. In solid formation, mephedrone is mixed with sterile water under heat to be injected intravenously or inserted intrarectally via moulded plastic tube inserted into the rectum (similar to GHB)[58]. In powder formation, this drug can be insufflated (“snorted”) or smoked, most typically by applying a small amount of powder to the end of a lit nicotine or marijuana cigarette[10]. Lastly, mephedrone capsules or tablets can be taken orally, by ingesting the pills[58]. The onset of effects is reported to begin within 15 to 45 minutes and last from 30 minutes to 3 hours depending on the method of administration[58,67] (with intravenous effects wearing off sooner than oral or nasal administration). Common side effects of mephedrone use, include variations in mood (ranging from depression to anxiety to paranoid thoughts), impaired concentration, fatigue, and disturbed sleep patterns[68]. Moreover, when insufflated, mephedrone is reported to be irritating and potentially damaging to the intranasal passages, leading to risk of sinusitis, rhinitis, or perforation of the nasal septum [69].

3,4-Methylenedioxymethamphetamine or MDMA **($C_{11}H_{15}NO_2$)**

Also known as: MDMA, ecstasy, E, X, XTC

MDMA is less commonly used in chemsex, but its use has been reported in some cases on its own or in combination with other substances. This drug is classified as an amphetamine derivative, and thus, has similar effects to crystal meth[58], but is reported to impede sexual performance, so is used more often as a 'party drug' (to boost energy) as opposed to a sexual enhancing substance[10]. MDMA functions by simultaneously releasing serotonin formation and inhibiting the re-uptake of serotonin to cerebral nerve endings[70]. It also releases norepinephrine, dopamine, and acetylcholine during use, causing hallucinogenic and stimulating effects[70]. MDMA is manufactured in the form of a tablet or pill, which is typically ingested orally[58,70]. Tablets or pills can also be crushed into a powder formation to be insufflated (snorted)[10]. The onset of the effects of MDMA begins within 1 hour of use and lasts for 4 to 6 hours[70]. While known to enhance sensory perceptions, MDMA can also cause symptoms of nausea, headache, tachycardia, xerostomia, bruxism, or trismus[71]. For some individuals, feelings of agitation or anxiety can also present[71].

Cocaine **($C_{17}H_{21}NO_4$)**

Also known as: coke, C, coconut, snow, white, crack, freebase

Cocaine is also less commonly used in chemsex. This drug is classified as a central nervous stimulator, which binds to dopamine, serotonin, and norepinephrine proteins and inhibits re-uptake of these receptors into pre-synaptic neurons[72]. Cocaine is available in a white powder formation and is most typically insufflated through the nose; it can also be converted to a liquid by mixing the powder with sterile water above heat to be injected intravenously[72]. A derivative of cocaine, known as crack cocaine, is also manufactured as a solid or 'rock'. In this form, a small piece of the drug is placed at the end of a short glass tube, or pipe, in front of a copper screen (used to filer micro fragments of the drug)[73]. Heat is applied to the section of the pipe proximal to the drug and vapours are inhaled[73]. Following administration, the effects of cocaine can be felt in less than 5 minutes (if snorted) or around 30 seconds (if injected) and last for 20 to 30 minutes

from administration[72,73]. The effects of crack can be felt within 30 seconds; however, the duration of effects is noted to be much shorter compared to cocaine, lasting only around 5 to 10 minutes[72,73]. Secondary effects of cocaine use most commonly affects the cardiac system, leading to hypertension, myocardial infarction, hyperthermia, cerebrovascular accident, or seizure[74].

Phosphodiesterase type 5 (PDE5) inhibitors

Generic names: Sildenafil, Tadalafil, Vardenafil, Avanafil

PDE5 inhibitors are a class of prescription medications used to treat, most commonly, symptoms of erectile dysfunction in male adults[75,76]. The primary indication for use is to manage difficulties with obtaining or maintaining erections during sexual activity[75]. Specifically, PDE5 inhibitors improve erectile function and sexual stimulation by relaxing blood vessels in the penis so as to facilitate flow of blood to the penis corpus cavernosum[77]. Medications are manufactured by drug companies in the form of oral tablets; these tablets range in size, shape, and colour depending on the drug manufacturer and formulation[75]. The typical half-life of PDE5 inhibitors averages between 4-6 hours, with newer versions extending upwards of 17 hours[75-77], producing lasting effects to prolong sexual activity. While these medications are regulated by Health Canada (i.e., require consultation and prescription from a licenced nurse practitioner or physician), they are often sold in unregulated marked (by drug dealers) to be consumed alongside crystal meth or other drugs during chemsex[10,11]. The reason for simultaneous use is that sustained use of illicit substances can cause impotence and PDE5 inhibitors are noted to reduce issues with sexual maintenance or completion and enhance sexual pleasure during chemsex encounters. Pharmacologically, these medications can negatively interact with vasodilating substances – specifically poppers – causing hypertension, cerebrovascular accident, or myocardial infarction[58].

Management of an HIV Diagnosis

A vast array of literature exists related to HIV management, including the medical, social, and psychological aspects of receiving a diagnosis and living long-term with this infection. The proceeding findings were identified in the literature review and are included as a discussion of

some of the factors GBMSM might contend with related to HIV management. They may not, however, represent the reality of all persons living with HIV, and thus, are not intended to be definitive. Indeed, most HIV positive GBMSM will mange with their diagnosis without any personal concern, as such, findings should not be used to generalize the experiences of this group.

Medical Management

By medical definition, HIV has evolved into a chronic health condition. Contrary to the adverse outcomes seen at the outset of the HIV/AIDS epidemic of the 1980s to 1990s, the life expectancy of a person diagnosed with HIV presently is near that of an individual who is confirmed HIV-negative[78]. To achieve reduced morbidity and mortality, persons with HIV require use of antiretroviral therapy, which is available in oral form (recommended daily dosing) or injectable form (recommended dosing every 2 months or every 6 months depending on the treatment)[17]. HIV monitoring is typically done by an infectious diseases specialist or prescriber (i.e., nurse practitioner or physician in community-based clinical settings) who has received training in HIV care. Follow-up occurs every 3 to 12 months, depending on the prescriber's recommendation, and involves serologic monitoring of infection[17]. Key in this testing panel, are values assessing individual's (1) immune system functioning – also known as the CD4 count; and (2) HIV viral load – as the amount of virus detectable in the blood[17]. The targets for immune system functioning are patient dependent, while for viral load, in Ontario, it is recommended patients' achieve a count of less than 20 copies/mL to be considered 'undetectable'[79] (meaning, the amount of virus in the blood is below the limits of detection and cannot be transmitted sexually or via needle sharing).

While beneficial for viral suppression, antiretroviral class drugs can cause various secondary effects or potential adverse events, particularly with long-term use (as is indicated for HIV care) that can affect engagement in treatment. More common side effects include headache, fatigue, insomnia, abdominal discomfort (such as, nausea, vomiting, diarrhea), loss of appetite, or dermatologic eruptions or rashes[17,80]. For those who receive treatment in the form of long-acting injections, pain or discomfort at the injection site may also occur[17]. With longer term use,

these medications can sometimes lead to or exacerbate other secondary health conditions[17,80], including hyperglycemia, anemia, reduction in creatinine clearance or premature renal failure, hepatoxicity or other forms of hepatic disease, hyperlipidemia or dyslipidemia, lipodystrophy and weight gain, lactic acidosis, peripheral neuropathy, or osteoporosis or osteonecrosis.

In Canada, objectives for HIV care are captured under the 95-95-95 targets which aim to identify undiagnosed infections and link those who are identified as HIV positive to treatment. Established by the United Nations AIDS initiative, these targets aim to have at least 95% achievement in the foregoing areas[81]: (1) 95% of people living with HIV being aware of their HIV status; (2) 95% of people who are aware of their status to be engaged in HIV treatment; and (3) 95% of those who are on treatment to have a suppressed or undetectable viral load. Specific to HIV care in Canada, data published in 2024 (current to 2022)[81] indicates 85% of HIV positive patients were on HIV treatment, of whom, 95% had a supressed viral load. These findings suggest that most individuals who are diagnosed with HIV do seek treatment and maintain engagement in care, including routine health screening and use of medications as prescribed. Recommendations regarding treatment use and target measures, however, are based on the opinion of healthcare providers, and may not align with the health goals of those living with HIV[82].

In some instances, treatment may be temporarily paused (e.g., ‘drug holiday’) or stopped completely. The reasons for reducing or stopping treatment use vary and can include any of the following[83,84]: missed doses, forgetting to fill a prescription, pill burden or treatment fatigue, reduced mental health (including negative associations to HIV medication use), substance use, financial barriers (e.g., issues with insurance), poor physical health (being unable to take medications or fill prescriptions), experience of secondary effects or adverse events, or personal decision to reduce or stop treatment use (e.g. due to the effects of the medication). In addition, some individuals living with HIV might elect not to take HIV treatment at all, some of whom may maintain routine monitoring with HIV providers[17]. Others might defer treatment initiation until their immune system count reaches a low or critical level[17] (CD4 count <200 umol/L is associated with

increased risk for opportunistic infections) and treatment would be recommended to maintain optimal health. Given the variety of reported factors associated with HIV treatment use, it is difficult to determine any type of causative effect. Rather, these are specific to an individual, their life circumstances, and their autonomy to choose if, and how, they take HIV treatment.

Psychosocial Management

While from a medical perspective, HIV is considered to be a chronic infection, from a social standing, it remains a stigmatized illness[85] in comparison to some other chronic health conditions. Some of the persistent negative social views of HIV among GBMSM relate to beliefs about gay men having incited the HIV/AIDS epidemic due to their sexual risk practices and high incidence of AIDS diagnoses initially being observed within this group[28,85,86]. Among men who identify as gay or bisexual, psychosocial management can also be further compounded by discrimination and layered stigmas related to belonging to a social minority group[87]; this stress may be more pronounced in other men who have sex with men who self-identify as heterosexual. Despite an abundance of literature focused on HIV transmission and campaigns aimed at addressing HIV stigma, misperceptions regarding HIV remain an ongoing social issue which over the long term, may lead to poor coping or mental health distress among GBMSM living with HIV[87].

Much like the variability in how (or if) GBMSM choose to participate in treatment, psychosocial aspects of HIV management and the extent to which these affect GBMSM were also not universal[28,86]. Within the literature, psychosocial challenges among GBMSM living with HIV, including stigma and discrimination may be experienced episodically (short-term), chronically (long-term), or not at all. Recent research exploring psychosocial factors affecting flourishing and resiliency found a connection between positive psychological management of an HIV diagnosis and strong social/family supports, employment, and low or no experiences of internalized HIV-related stigma among GBMSM with no previous history of mental health diagnoses[88,89]. Conversely, higher levels of internalized stigma related to sexual orientation and/or HIV status, prior diagnosis of anxiety or mood disorders, and unemployment were negatively associated with

flourishing and resiliency in this group[88,89]. These findings suggest that (1) having access to a supportive network (e.g., peers, friends, family, colleagues, sexual or romantic partners) who are either aware of an individual's diagnosis or who demonstrate general sensitivity toward people who are living with HIV and (2) feeling resolute about ones HIV diagnosis – for example, low to no perceived discrimination based on HIV status or sexual orientation, may contribute to higher levels of resiliency and positive mental health outcomes among GBMSM living with HIV[87-89].

Stigma Management

While psychological factors surrounding an HIV diagnosis will not affect all GBMSM in the same way, the presence or experience of various stigmas, such as (1) *enacted*: actual experience of harassment, violence, or exclusion; (2) *perceived*: anticipation of social misperceptions or judgments related to HIV and/or sexuality; and (3) *internalized*: belief that negative social beliefs or statements about HIV and/or sexuality are true, work to socially discredit an individual and can have repercussions for individual wellbeing[90]. For example, under certain circumstances, the anticipation, or actual experience, of HIV-related stigma can negatively impact mental health and engagement in social activities. Related to this, current literature has established linkages[19,91,92] between stigma among HIV positive GBMSM and condomless sex, reduced engagement in HIV treatment and care, perceived negative self-image (e.g., low self-esteem, worthlessness or helplessness), reduced interpersonal interactions, and increased incidence of mental health issues (e.g., depression, anxiety, suicidal ideation). Experiences of stigma were also found to affect aspects related to HIV disclosure[93,94], where concerns about the possible negative reactions of sexual or romantic partners, including rejection, exclusion, anger, or even violence, was found to reduce the likelihood of GBMSM living with HIV discussing their status with potential prospects.

While various responses to HIV-related stigma have been reported, some GBMSM employ the use of concealment mechanisms[90] during social interactions to avoid the potential of being identified and potentially stigmatized based on their serostatus. Some such strategies, include[92,93,95] engaging in anonymous sex (where conversations about HIV status might be less

likely to arise), engaging in lower-risk sexual activities (such as oral sex, kissing, or manual/digital stimulation where HIV transmission risks are lower), serosorting (limiting sexual partners to those who are known to be HIV positive or who are taking HIV pre-exposure prophylaxis where risk of HIV transmission is less likely to occur), or avoiding use of oral HIV treatment in public. Advancements in HIV treatment in the form of antiretroviral injections[17,96] every 2 or 6 months has been helpful in mitigating the need to transport medications or having to take these in public settings as this can reduce potentially being identified as taking HIV medications. In the absence of widespread social acceptance of HIV, these strategies can be used at the discretion of an individual to help them feel more comfortable during social or sexual interactions with others.

Aspects related to HIV disclosure

The experience of stigma can also be mediated by decisions about whether to disclose ones HIV status – and if so, when and to whom, this might occur. One major tension relates to the disclosure of ones HIV status to sexual partners. Previous legal precedents in Canada[97] required all persons living with HIV disclose their HIV status to sexual or needle-sharing contacts before engaging in activities that could pose a reasonable risk for HIV transmission, regardless of their HIV treatment use. Following pivotal studies originating in the United States, research has now established that persons with an undetectable viral load, have a negligible risk of HIV transmission; prompting media campaigns under the slogan[98] “Undetectable=Untransmittable” or “U=U”. The establishment of this research corresponded with a shift in legislation in 2017, whereby the Supreme Court of Canada[99] ruled disclosure was not universally required for individuals who (1) had sustained evidence of low or undetectable HIV viral loads for at least 6 months prior to a given contact and/or (2) who may or may not be on HIV treatment, but used condoms for sexual activities because these scenarios did not carry a realistic possibility of HIV transmission. While not the primary focus of this research, this change in legislation has resulted in increased autonomy for GBMSM living with HIV around the aspect of disclosure. Similarly, HIV prevention messaging, including U=U[98] and HIV pre- and post- exposure prophylaxis (PrEP and

PEP)[100] has been widely incorporated into mainstream media campaigns as a means of informing the general public about HIV risks in hopes of reducing HIV stigma and onward HIV transmission.

Living the Diagnosis

While a recurrent theme in the literature regarding psychosocial aspects related to HIV management, stigma is not the only item that might affect coping with an HIV diagnosis. In some cases, particularly in the period immediately following an HIV diagnosis, some GBMSM might experience feelings of shame, guilt, loss of sense of self, regret, or loneliness[101-103]. Such feelings often relate to the initial shock of receiving an unexpected diagnosis, where individuals can place blame onto themselves for having acquired HIV (a lifelong viral infection) as a result of their engagement in various sexual and/or substance using activities[101-103]. These emotions can also relate to the initial adjustment of being diagnosed with a chronic health condition[104,105], for which regular medical follow-up and consistent medication use is recommended. For some individuals, the medicalization of HIV management represents a major shift in healthcare access[104] – e.g., if individuals were previously accessing healthcare on an as needed basis or not accustomed to regular, ongoing, medication use. Moreover, the diagnosis of a chronic health condition can instigate fears of reduced health outcomes[78,102,105], such as loss of life longevity (reduced life expectancy of 3 to 8 years if prompted diagnosed and initiated on treatment) or fears of acquiring terminal opportunistic illnesses that might further decrease the lifespan of persons living with HIV. While research has established that the life expectancies of persons living with HIV are comparable to those living with out HIV[106], these estimates were found to be dependent on timing of HIV diagnosis and consistency of HIV treatment use, and thus, may not be universally applicable to all HIV positive persons. Finally, some research has identified the experience of HIV-related symptoms[16,21,107] secondary to acute or chronic HIV infection or HIV treatment use (e.g., visible lesions, weight loss, abdominal or facial lipodystrophy) was significantly related to depression in GBMSM. For these individuals, the secondary effects of HIV infection or treatment use are felt to be a 'visible' marker of illness[90], which was associated with decreased levels of

social interaction and engagement in healthcare (including HIV treatment and care). Of note, these findings were specific to Western countries which have enhanced access to HIV treatment and care compared to HIV-endemic regions where HIV subjectivity might differ[108].

Potential Risks of Chemsex

Within the literature, chemsex, crystal meth, and other substance use are often referred to in terms of their potential 'risks' or 'harms'. The construction of these harms is built around narratives of the potential risks to the HIV positive individual, as in, the physical and mental effects associated with crystal meth use, and the possible negative sequalae resulting from STI co-infections or complications related to long-term HIV management. While not intended to replicate negative discourses regarding engagement in chemsex, from a nursing perspective, it is relevant to discuss some of the potential risks so as to understand (1) the scope of the literature as it relates to the research problem and objectives and (2) the experiences of HIV positive GBMSM who are engaging in this practice and who might sustain some of these effects related to sexual activity and/or substance use. It is also relevant to note that these potential risks do not apply to all GBMSM living with HIV who are engaging in chemsex. Indeed, in many (if not the majority) of cases, GBMSM will engage in prevention strategies to mitigate these risks or may not experience secondary effects from substance use at all[109]. Some risk considerations are detailed herein.

Potential Risks Related to Condomless Sex

A primary concern surrounding chemsex practices is the potential acquisition of STIs[48] (i.e., *Chlamydia trachomatis*, lymphogranuloma vereneum, Neisseria gonorrhea, and infectious syphilis) and viral infections (e.g., mpox, herpes simplex virus, and human papilloma virus) secondary to engagement in condomless sex or acquisition of viral blood borne infections (i.e., hepatitis A, hepatitis B, hepatitis C) related to condomless sex and/or sharing of injection drug equipment. Quantitative research on this subject has purported a relationship between STIs and chemsex, with recent Canadian data[44,48,110] finding a 32% increase in bacterial STI acquisition risk associated with this practice among GBMSM accessing sexual health services – with potential

for gonorrhea infection being highest. Additional data from a chemsex survey in the United Kingdom[44] found that HIV positive GBMSM engaging in chemsex were 3 times more likely to be diagnosed with one or more STIs; these odds increased to 5-7 times among HIV positive GBMSM who reported injection drug use during chemsex. This survey also found significant associations between bacterial STI diagnoses (adjusted odds ratio: 2.65) and hepatitis C infection (adjusted odds ratio: 6.58) among HIV positive GBMSM who reported engaging in chemsex[44]. Other research from the Netherlands[111] found a significant relationship for STIs among HIV negative GBMSM engaging in chemsex; these findings were not significant for HIV positive GBMSM.

Regardless of estimates, the diagnosis of certain STIs can result in health implications for some GBMSM living with HIV. Current HIV prevention guidelines note a potential risk for HIV transmission in the presence of rectal chlamydia and gonorrhea infections due to the impact of these infections on the rectal mucosa[112]. While some research has found transient increases of viral load in the rectal fluid of HIV positive GBMSM, most other research has established there is a negligible effect on plasma viral load of those who are well-established on HIV treatment[113]. These risks may differ for those who are not engaged in HIV treatment at the time of STI diagnosis. Of note, however, is that HIV positive GBMSM are known to account for the majority of secondary chlamydia diagnoses resulting from serovars L1-L3 (estimated odds ratio: 8.19)[114]. This infection, known as, lymphogranuloma vereneum[114] is most commonly diagnosed in the rectal mucosa, which initially presents as localized ulcerative lesions and can disseminate into regional lymph nodes, causing chronic oedema and/or sclerosing fibrosis of the rectal tissue.

The diagnosis of infectious syphilis can also pose a potential health risk to HIV positive GBMSM. Specifically, persons living with HIV have an elevated risk of development of neurosyphilis[115,116]. This risk is said to be increased among persons who have CD4 levels at or under 350 umol/L and/or who have detectable HIV viral load levels; however, infection can occur regardless of HIV treatment use[116]. Neurosyphilis occurs when syphilis bacterium (treponemes) invades the central nervous system[115], including the brain stem and spinal cord. During the course

of neurosyphilis infection, treponemes can also disseminate to ocular structures, such as the cornea, anterior chamber, and optic nerve (i.e., ocular syphilis), otic structures, such as the cochleovestibular apparatus or temporal bone (i.e., otosyphilis); or the cardiac system, such as the aorta and cardiac arteries (i.e., cardiovascular syphilis)[115]. If symptoms are present, they can manifest as meningitis-like headaches, mobility issues, changes in memory or cognition, reduced or complete loss of hearing to one or both ears, changes to vision (e.g., floaters, spots), loss of vision in one or both eyes, aortic aneurysm, or aortitis[115]. In some cases, these sequalae can cause permanent damage if infections and treatment are not promptly identified and administered.

Lastly, HIV positive GBMSM are reported to be at increased risk for viral hepatitis. Hepatitis A is primarily sexually transmitted (from fecal-oral exposure), while hepatitis C is generally transmitted from blood-to-blood exposure (typically from sharing needles or injection drug equipment, though transmission can occur from sexual activities); hepatitis B can be transmitted both through blood and sexual fluids (e.g., semen, vaginal fluid, rectal fluid, saliva)[117]. These infections affect the hepatic system causing liver scarring, fibrosis, or in more extreme cases, cirrhosis or liver failure[117]. Such risk primarily relates to acquisition of hepatitis B and C infections[117], but hepatitis A infection among persons living with HIV with underlying hepatic disease can result in more serious effects to the liver[118]. Among GBMSM living with HIV and engaging in chemsex, elevated rates of hepatitis infections were identified, most common of which was hepatitis C[9,119]. Vaccinations are available for hepatitis A and B; however, no such prevention method exists for hepatitis C which can pose ongoing risk for GBMSM engaging in chemsex[117].

Potential Risks Related to Crystal Meth Use

Given the impact of crystal meth and other drugs commonly used in chemsex on the central nervous system, it is also relevant to consider the associated health risks that can occur with the use or discontinuation of these substances (e.g., following a short or prolonged period of use or complete cessation). The occurrence of these symptoms can vary and is not universally experienced. In many instances, HIV positive GBMSM can engage in chemsex without

experiencing any adverse outcomes from crystal meth (or other drug use). Among other subsets, however, the experience of neurocognitive, physical, and/or personal effects may be reported. These secondary effects are explored in more detail for context from a clinical health perspective, focusing more specifically on crystal meth (as the most commonly used substance in chemsex).

Neurologic effects

The potential neurocognitive effects of crystal meth were frequently noted. This focus within the literature relates to the neuropharmacology of crystal meth, which penetrates the central nervous system at higher concentrations compared to other stimulants, such as speed or cocaine[120]. Once in the central nervous system, crystal meth binds to dopamine, serotonin, and norepinephrine, which are taken up by monoamine transporters. This leads to an accumulation of monoamines in the cytoplasm which are subsequently released through the same channels in which crystal meth enters[120]. In addition, this drug inhibits the reuptake of monoamines, causing a rapid onset and prolonged elevation of monoamine concentration within the extracellular space.

The result of this effect is said to be the primary cause of the constellation of neurological systems that can potentially occur because of crystal meth use. Some such symptoms associated with consumption include[8,32] psychomotor agitation (e.g., unintended movements, restlessness), dilation of pupils, increase in cardiac activity (e.g., tachycardia, hypertension), and dysregulated body temperature (e.g., increased internal temperature, diaphoresis). With ongoing crystal meth use, the depletion of dopamine and serotonin from monoamine receptors can potentially lead to damage in the terminal endings, resulting in neuropsychiatric changes, specifically around memory, executive functioning, and motor functioning[8,120]. For memory, crystal meth use can affect recall of past events, leading to forgetfulness or lapses in cognition of previous experiences[8,32]. For executive functioning, for some individuals, crystal meth use is reported to affect impulse control, social interactions (e.g., difficulty reading or maintaining social cues), and focus or concentration[8,32]. Over time, persons who routinely use crystal meth can experience damage to the frontal lobe, resulting in difficulties with behaviour regulation[8,32]. Lastly, for motor

functioning, some research has established a link between longer-term crystal meth use and reduced fine motor skills, such as dexterity, hand muscle coordination, or hand precision[8,32].

Mental health effects

Building on the neurologic effects of crystal meth, mental health related conditions can also arise secondary to use or discontinuation (including withdrawal) of this substance. For some individuals, crystal meth use in varying quantities can precipitate or exacerbate generalized anxiety or major depressive disorders. The use of this drug has also been linked to possible experience of psychotic symptoms within the category of schizophrenia form disorders[8,32], including auditory or persecutory hallucinations, paranoid beliefs or delusions, rapid mood cycling, agitation, or even violence, or aggression[121,122]. Among HIV positive GBMSM, some psychoses that occur secondary to crystal meth use can involve preoccupation with HIV status, where delusions or paranoias might focus on ones HIV status being revealed to others or concerns about encountering challenges with legal or public health authorities (e.g., related to HIV disclosure)[11].

The cause of these effects remains highly disputed within the literature, with some research suggesting mental health manifestations may result from crystal meth toxicity caused by the accumulation of monoamines in the cerebral space and damage to the dopamine and serotonin receptors[120,122]. Other research has suggested that individuals with underlying mental health issues may be at increased risk for neurocognitive changes due the effects of crystal meth on the existing structures in the brain[120,122]. The duration of symptoms is said to vary depending on the individual, lasting upwards of one week. In some cases, changes to mental health lasting upwards of 6 months have been reported, while in rarer instances, some individuals experience chronic mood or psychotic symptoms or illnesses[8]. In most cases, HIV positive GBMSM can engage in chemsex without notable cognitive or mental health disruptions[8]. Long-term effects on mental health associated with smaller or infrequent dosing are less established in the research.

Physical effects

In addition to the potential mental effects of crystal meth withdrawal, discontinuation can also yield possible physical effects. Such effects are noted to peak approximately 24 hours from the last use and continue for up to 2 weeks afterwards[121]. including disrupted sleep patterns (restlessness, insomnia, nightmares or vivid dreams), chronic fatigue, and changes in appetite (often feeling increased hunger following cessation of appetite during use or peak effects)[123]. Moreover, psychomotor changes (e.g., muscle agitation or spasms) and myalgia can also occur following use[124], though these symptoms tended to occur at lower levels after acute withdrawal[121].

In terms of long-term physical effects, frequent or sustained crystal meth use has been associated with potential cardiac or neurologic conditions[8,32]. Regarding cardiac health, amphetamines have been linked to increased incidence of vasoconstriction and cardiomyopathy, arterial and pulmonary hypertension (secondary to release of dopamine and norepinephrine in the synaptic clefts), arterial plaque formations, and prolongation of the QT intervals leading to cardiac arrythmias – with the risk of arrythmias increasing in the context of pre-existing cardiac conditions[125,126]. With longer-term use also comes the possibility of hemorrhagic stroke exacerbated by arterial hypertension or rhabdomyolysis causing renal or hepatic damage[126] . Moreover, crystal meth use can change neuroimmune functioning leading to neuroinflammation and dopamine neurotoxicity. These neurologic processes can cause changes in cerebral grey and white matter – which affect decision-making processes and can lead to alterations in mood, cognition, or memory[122,126]. Prolonged methamphetamine use can also cause intercellular inclusions that produce dopaminergic effects similar to Parkinsons disease[122,126] (e.g., tremors, poor coordination, muscle stiffness), resulting in greater psychomotor impairment.

Specific to HIV and potential neurologic complications (such as fine motor or cognitive impairments), HIV positive GBMSM engaging in chemsex are reported to have greater challenges with HIV maintenance compared to their non-chemsex using peers. Differences in engagement in care related to mental health factors, such as mood or psychotic symptoms that affected

motivation around engagement in HIV treatment and care, and the neurologic effects of substances, including forgetting to take medications[21,33,127]. Evidence from the literature also suggests these men are often less likely to be on HIV treatment or to complete routine health follow-up with HIV providers, and as a result, were at increased risk of presenting with detectable HIV viral loads (and thus, had an increased potential for transmission of HIV to seronegative partners), lower rates of immune system functioning (CD4 count), and faster progression to AIDS (based on CD4 count and/or development of AIDS-related opportunistic infections)[33,34,127].

Other considerations

Finally, there are peripheral risks to consider related to engagement in substance use, which can include psychosocial effects and the potential for changes in sexual and substance use practices over time. Regarding some of these effects, literature examining engagement in chemsex and use of crystal meth has identified associations with psychosocial outcomes, such as financial instability or loss of employment (with some GBMSM having lost their job or taken long-term leave), strained relationships with family members or friends, difficulty engaging in activities of daily living or social activities, and challenges with maintaining housing or shelter[128,129]. These psychosocial risks were not universally experienced, but per the literature, may have been more commonly linked with sustained crystal meth use[128]. For example, an Australian study examining psychosocial effects of chemsex use found that higher rates of substance use correlated with increased negative impact on social engagement[130]. Similar findings from a United States-based study identified that prolonged crystal meth use among GBMSM coincidence with reduced ability to participate in or execute basic daily activities[131].

Other risk considerations relate to changes in sexual behaviours and sexual experiences secondary to crystal meth use. Much of the risk-based literature on chemsex among GBMSM suggests that prolonged use of stimulant drugs can affect impulsivity and decision-making, which can lead to increased incidence of condomless sexual encounters with multiple sex partners[8,32,132]. The monetary costs of crystal meth can moreover, lead to increased involvement

in sex work (i.e., exchange of sex for money or drugs or exchange of money for drugs or sex), which may also change individual motivations for engagement in chemsex[133]. These changes can also be influenced by external pressures from the community, friends, or partners. For example, research from a study conducted in the United Kingdom suggested peer pressure to engage in chemsex may be a strong influence for ongoing use or challenges with changing use[129]. Finally, the euphoric sensations produced by using crystal meth during sexual activity can, over time, result in a reliance or dependency on drugs in order to participate in sex – with some men reporting an inability to have sex without the use of drugs[11,13,133]. Managing changing sexual behaviours, such as establishing balances between 'sober sex' and chemsex can become increasingly complicated in partnerships where both or all parties are engaging in chemsex.

A final note regarding potential risks associated with chemsex relates to possible changes in substance use practices. Chemsex, as described in the literature, is commonly associated with polysubstance use, involving use of various stimulant drugs to enhance or replace effects of crystal meth and/or the use of depressant drugs to counteract prolonged effects of meth (e.g., to 'come down')[10,133]. Moreover, changes in substance use can be reflected through changes in drug administration – for example, from inhaling or smoking to injecting or 'slamming' – to feel a more intense high, which can carry increased risk for bloodborne infections[58]. Indeed, results from a United Kingdom study found that HIV positive GBMSM who injected meth were statistically more likely to have been diagnosed with multiple STIs and had significantly greater odds of acquiring hepatitis C compared to those who only inhaled (smoked) crystal meth[9]. There is also the possibility of polysubstance dependency secondary to crystal meth use, including a reliance on alcohol to counter or supplement the effects of stimulants. For example, findings from a cross-sectional study in Rio de Janeiro, Brazil found a 27% incidence of alcohol and drug use for sexual contacts among men who have sex with men[134]. Similarly, results from a chemsex survey conducted in Montreal, Quebec reported a 36.4% total incidence of alcohol use for sexual encounters among GBMSM, 15.7% of which involved consumption of five or more drinks[47].

Finally, consideration also needs to be made to the risk of developing substance use dependency or addiction. It is difficult to contextualize addiction within the landscape of available literature on chemsex as delineations between general substance use and sexualized substance use are not well established. In other words, it is not clear if the potential for addiction relates to the drug itself or (in the case of some individuals) a reliance on substances in order to feel comfortable engaging in sexual and social activities. As a drug, however, crystal meth is reported to have an increased potential to become addictive due to its properties as a central nervous system stimulant[59]. Moreover, it is estimated that between 36-61% of persons who seek treatment for crystal meth dependency are reported to relapse at 6 and 12-months, which can put GBMSM at higher risk for ongoing use or development of a potential addiction with sustained use[135].

Perceived Benefits of Chemsex

Despite the reported – and somewhat lengthy – list of potential risks associated with chemsex described above; discussions must be tempered against consideration of individuals' motivation to engage in these so-called 'risky' behaviours. As such, it is relevant for engagement in chemsex to also be viewed in terms of the positive aspects it provides for GBMSM living with HIV. More specifically, this relates to the pleasures associated with the consumption of crystal meth and other substances, as well as the sexual activities that might ensue during or surrounding substance use. Presently, the perceived benefits of chemsex remains an underexplored area within the research compared to the potential risks of engagement. As a result, social and healthcare writings tend to misrepresent chemsex as an inherently risky – and by extension – negative or problematic practice. These writings, however, are almost exclusively written from perspectives outside those of GBMSM who engage in said practices and thus, likely do not fully encompass the realities of their experiences, which warrants further discussion and exploration.

Sexual Pleasures

First and foremost, chemsex must be understood in terms of the sexual pleasures that it can provide for its participants. Indeed, descriptions of the benefits of this practice on enhancing

the sex lives of GBMSM were a recurrent theme in most of the available literature exploring the positive aspects of chemsex. One of the most cited benefits of chemsex related to the sexual pleasure elicited from engaging in sex on drugs[36]. While 'pleasure' (as a general term) can hold different value for different people, its meaning within the context of chemsex circles was captured in descriptions of the intense sensations it provided. Within the literature, GBMSM praised crystal meth (among other substances) for its euphoric effect on their mental state during sexual contacts or interactions with others[36,43,136,137]. Specifically, the rapid onset rush of dopamine elicited by crystal meth produced a stimulating sensation which served to increase and enhance sexual arousal and sex drive during chemsex sessions[36]. In general, this euphoria provided a near electric sexual charge to their interactions with other men – one that radiated throughout their entire bodies, fueling feelings of uncontrollable lust and desire in the moment. This arousal was not specific to penetrative sexual contacts, but rather, was captured as a current of flows that allowed them to experience touch, breaths, sounds, and movements with an unparalleled force.

The euphoric feelings created in the interplay between the drug, the space, and the participants within chemsex sessions allowed GBMSM to open themselves up to experience sex more intensely than they had before – particularly without the use of drugs. In other words, it produced "incommunicable bodily pleasures"[36, p.13] that often left them wanting more sex and more drugs. For these men, feelings of pleasure related to new and heightened physical sensations as they interacted (e.g., smoked, injected, played, touched, watched, penetrated, or were penetrated) with others[36]. This intensified sexual state facilitated by the use of crystal meth or other substances were also noted to enhance their performance during sexual contacts. Specifically, the literature discussed an increase in stamina and physical endurance to engage in prolonged sexual activities[138]. With chemsex sessions often lasting multiple hours and extending upwards of 72 hours at a time[8], delayed ejaculation could often be considered a welcome secondary effect of crystal meth use (though, only up to a certain point). Moreover, the stimulating effects from substances commonly used as part of chemsex also provided increased mental

energy and acuity, allowing GBMSM to give their full attention to sex and the various partners they were engaging with, thus perpetuating the desire to never want their experience to end[139].

Lastly, sexual pleasures related to the ability of certain substances to improve the perceived quality of sex these men were having, which was a primary motivating source for use. Specifically, the increased arousal, intensity, and longer duration of sexual activity combined with the dissociative effects of drugs created a newfound confidence in the overall performance of participants: a seeming invincibility. Some qualitative studies on GBMSM who engage in chemsex reported on the sharpness in mental acuity stemming from crystal meth use, allowing users to feel more in control during sexual contacts[139]. Others noted that the happy, euphoric feelings produced from consuming drugs caused them to be less inclined to feel pain or discomfort that might have previously constrained their sexual activities[139]. Most notably, GBMSM spoke of the ability of crystal meth to overcome physical and/or mental barriers to be able to engage in receptive anal sex (including fisting or having genitals, sex toys, or other objects inserted into the rectum) without pain[136,137]. Other articles spoke of the ability of crystal meth to facilitate opportunities for group sex or sex acts they may have been interested in, but had never engaged in previously – or had not experienced the same level of pleasure from as they had with chems[139].

Disinhibition

Building on the pleasurable aspects of chemsex, the notion of disinhibition was also well documented throughout the literature, in terms of the sexual liberation it was said to provide for those who participated. For many GBMSM, this feeling of disinhibition primarily related to the ability of chemicals to break down barriers that sometimes-surrounded sexual performance (as in, their desire to participate in certain sexual activities and to experience sexual pleasure to its perceived fullest potential)[139]. Within the literature, men discussed how chems fueled the charge they felt when engaging sexually with other men – and how this experience was “unparalleled” compared to “sober sex” (or sex without chems)[140, p.5]. This sentiment primarily related to the ability of chems to extend personal barriers[139] for many of its participants by intensifying the bodily,

emotional, and physical sensations they experienced during, and related to, their sexual contacts. The satisfaction they felt in these moments, was not specific to a sexual role or hedonistic sexual act, but rather, allowed men to feel more *intimate* – lighter, freer, sensual, erotic – in their dynamics with others. The rush of the chems combined with the force of this shared sensuality allowed them to extend their personal boundaries and engage with others without restraint.

For others though, participation in chems was more heavily motivated by the positive impact it had on their sexual experiences. This aspect of disinhibition[136] related to the ability of chems to facilitate sexual exploration – allowing men to experiment with different sexual roles they might not have previously considered or felt comfortable enough to engage in[139]. This level of sexual freedom was noted to be particularly important factor for GBMSM living with HIV, as the psychosocial obstacles surrounding potential for HIV disclosure, transmission, stigma, or rejection can in some instances, inhibit their enjoyment of sex without the use of drugs[139]. For some participants, chemsex allowed for opportunities to discover new sexual abilities or practices – for example, increased sexual stamina (more vigorous, longer sexual sessions) or engagement in fisting or receptive anal sex (where pain or discomfort might have previously been a barrier). For other participants, chemsex allowed them the ability to live out more specific or more radical sexual fantasies, such as bondage, fluid or blood play, sadomasochistic practices, or to engage in more extreme forms of sexual excess through 'boundary play' or 'edgework' where personal risk and sexual pleasure were pushed to the very edge of human physical limits (without falling off)[136,141]. For others, sexual freedom related to less penetrative acts, and focused more on feeling comfortable being naked in front of others, masturbating, watching or filming others, enjoying pornography, touching, kissing, or admiring other bodies, or scrolling 'hookup' applications[30].

Finally, notions of disinhibition relate to the ability of GBMSM to engage in unrestrained experimentation. This dimension was more of a psychological benefit, in that men felt comfortable entering into chemsex spaces and connecting with others in a seemingly more authentic way than the versions of themselves they felt like outside of these spaces[139]. Some of the literature

described chemsex as eliciting a "cognitive freedom"[142,p.153] where men could experience the full spectrum of their sexuality and sexual identities without hesitation. Because chemsex spaces were shared spaces, GBMSM (particularly those living with HIV) felt more authentic in their participation with others and in expressing their wants and desires because they felt they would not be judged[139]. In this dimension, participants were able to become disinhibited from socially inscribed identities they were given outside of these spaces (e.g., HIV positive, gay or into sex with men, etc.). In this way, disinhibition was not purely a sexual state – but rather, a plane in which physical and emotional sensations converged to "provide access to an alternative psychological reality, which was deemed to be more satisfying for identity processes"[139,p.586-587;143].

Internal benefits

In discussing the perceived advantages of chemsex, it was also important to reflect on the internal psychological benefits for GBMSM living with HIV – most notably, the personal and emotional purpose this practice and community provided them. Within the literature, the most commonly noted internal benefit related to improved feelings of self-confidence secondary to chem use[139]. Indeed, for many GBMSM who engaged in this practice, the euphoric effects of substances were said to provide enhanced feelings of self-esteem[139], which allowed them to feel more confident to engage with others socially, personally, or sexually. For some, this self-assurance encouraged participants to "view their bodies as they wished them to be"[144,p.5] or to achieve a general satisfaction with how they felt they looked in the view of others, which helped reduce the insecurities that otherwise, might have inhibited their social or sexual participation. For others, chems helped them to feel more desirable to others, which in turn, positively contributed to the heightened sense of pleasure and level of disinhibition they were able to achieve during chemsex sessions[139]. Feeling more attractive to others was not just a sexual benefit; it also helped men feel more socially desirable by being invited to sex parties, being included in smaller or more intimate evenings, or receiving validation from partners for their sexual performance[139].

In addition to boosting self-confidence, participation in chemsex was also noted to have the internal benefit of helping GBMSM overcome personal anxieties or insecurities related to social or sexual engagement[139]. In these spaces, men could feel free to behave and express themselves openly – in other words, chemsex made them feel happier about themselves and their lives. In the context of the actual or perceived stigmas that GBMSM living with HIV might face related to their sexuality or serostatus[95,139,145] (e.g., rejection from a sexual partner or peer, physical threats of violence, fears over HIV disclosure or transmission) or internalized insecurities (e.g., related to body image, physical appearance, sexual abilities or performance), having an outlet like chemsex provided an opportunity to change dominant narratives that previously shaped their identity. Moreover, the hyper-focused secondary effects elicited by crystal meth and other substances could also be used to help men achieve their personal goals, including improved concentration on specific tasks, such as cleaning, fixing items around the household, or work or personal assignments that otherwise, may have felt tedious or unachievable[56]. Finally, chemsex was noted to improve self-efficacy (and perceived self-worth) among GBMSM by engaging in practices and feeling like a version of oneself that they would not engage in or feel like sober[139,143].

Escape

Another recurring theme in the literature included the importance of escape, in which some participants access an alternate (and in some cases, more pleasant) reality away from potential personal or life stressors. While escape[42,139] is not a universal motivation for all GBMSM who participate in chemsex, it is notable that upwards of 45% of men in a Taiwan based study reported to use drugs for sex as "a way to forget problems"[42,139,146,p.103]. These potential problems most commonly related to mental health, including use of substances to mitigate feelings of loneliness, emptiness, isolation, or negative thoughts related to themselves or their personal life circumstances – or even just to counteract boredom[139]. Results from a multivariate analysis involving 1648 GBMSM in the United Kingdom found a significant association ($p=<0.001$) between engagement in chemsex and lower satisfaction with life[129]. Others, noted engagement

in chemsex as a means of coping with negative body image (e.g., aging appearance, lipodystrophy caused by antiretrovirals, different physique or muscle tone than the 'norm', being over or underweight, etc.), which could make them feel unattractive or unworthy – particularly to partners whom they considered to have a more 'ideal' or 'hot' body type[139]. A cross-sectional study conducted in Quebec, Canada also found that body shame or body image issues were significant motivators for increasing sexual self-esteem and sexual functioning[147]. Some GBMSM living with HIV reported engagement in chemsex to help cope with concerns regarding their health living with HIV or with fear of – or actual – rejection from potential sexual partners on the basis of their serostatus[42,93,139]. While their presence in chemsex spaces did not guarantee acceptance, the drugs themselves were said to have lessened the pain of rejection when it did occur. Finally, some reported participation in chemsex as an escape from life stressors[42,139], including financial concerns or pressures from family, friends, romantic partner(s), or employer or work; these stressors were experienced broadly and not necessarily specific to their participation in chemsex.

Other literature described escape as more of a means of suppressing potential feelings of guilt or shame that might affect their mental health or wellbeing. Most commonly among GBMSM living with HIV, the desire to *escape* related to a desire to forget about the circumstances or events that led them to be exposed to HIV or to counteract feelings of unworthiness about their HIV diagnosis[139]. For older GBMSM who were diagnosed with HIV during the AIDS epidemic, some reported using chems as a way to repress or cope with memories of friends or peers who had suffered or died from their infections or to combat feelings of 'survivors' guilt' (for surviving living with HIV long-term when many of their peers within the gay community had not)[86,148]. Others noted a motivation to use chems as a way of coping with pressures related to identity concealment in mainstream society, such as their HIV status, sexuality, sexual preferences, or sexual orientation or to rebel against social stereotypes of how men ought to behave[143,149]. For some men who have sex with men who did not identity as gay or bisexual, chems could also be used as a means of suppressing feelings of shame or embarrassment around their sexual practices, particularly if

these preferences countered the cultural or religious norms they subscribed to. Others might engage in chemsex as a means of repressing prior personal traumas[86,139,150,151], including physical, emotional, or sexual abuse, mistreatment by society, bullying, racism, or homophobia (among others). Chems thus provided a relief from some of the pressures that often contained and restrained personal expressions and sexual liberations among GBMSM living with HIV.

Community

Finally, chemsex also seemed to serve a greater social function for GBMSM living with HIV, in that it brought together a group of people with common experiences and shared interests for sexual exploration and personal escape. In this way, chemsex could be viewed as its own unique community or subculture. Within this community dynamic, the most commonly noted benefit was that it provided an opportunity for social closeness and bonding within the gay community[133,139,152,153]. Regardless of self-described sexual orientation, level of participation, or described sexual role, these men felt a sense of safety entering into chemsex spaces because they knew they would be surrounded by a group of like-minded peers who accepted them for who they were – not for what society labelled them to be[153]. The recognition from others that GBMSM received in these venues provided a sense of comfort and confidence to be able to establish new social connections in and outside of chemsex-specific events. This was noted to be an integral factor in building self-esteem and countering negative internal emotions, such as loneliness or isolation, some might have experienced outside of these spaces[154]. Moreover, the sense of approval participants felt within this community gave them the ability to access feelings of emotional closeness with their sexual partners. Having the opportunity to express emotional vulnerability with others was noted to be an important part of chemsex because for some participants, the ability to trust others[133,139,153] (particularly outside of these circles) was noted to be a barrier to establishing meaningful relationships. In this view, chemsex subcultures not only brought individuals together, but also provided a sense of belonging and positive gay identity gain.

Belonging to this community also had meaningful impacts on the sex lives of GBMSM. Several qualitative studies noted one of the primary motivations for engagement in chemsex related to an expanded range of potential sexual partners. Within these spaces, participants reported having access to partners they formerly considered to be 'out of their league' or whom they found more attractive than they might have been able to obtain outside of these spaces, which positively impacted their sexual enjoyment and self-confidence[36,137,139]. Chemsex communities were also noted to have facilitated opportunities for men to engage in group sex or sex parties with multiple sexual partners – which may have been something they had previously fantasized about, but never engaged in because they feared being judged for their desires[36]. Within these spaces however, men could be free to relax and indulge in unrestrained sex with others, which was reported to be a positive motivating factor for participation. The outcome of luxuriating in erotic activities with 'hot' men also facilitated feelings of intimacy between participants and their partners[139]. Specifically, men spoke of how the bonds they forged within this community and how the liberating sensations of chems allowed them to break free of some of their emotional barriers in order to experience deep feelings – even "the experience of love or a romantic relationship" with others[36,p.17]. For some, chemsex communities actually facilitated new romantic relationships outside of the group; for others, it helped to strengthen emotional bonds with a current partner; and for others, it gave hope for a possibility of a romance in the future[36,139].

Chemsex must therefore be understood as "[more than] an erotic activity on drugs"; it represents its own social 'place', accompanied by a unique inscription of "intentions and expectations" for participants[55,p102]. Inherent in this subcultural view, is that chemsex acted as a space of production mediating the line between mainstream beliefs (e.g., condemning drug use, HIV status, or same sex relations) and personal wants and desires – which were not necessarily limited to sex[18,52]. Chemsex venues can thus be described as 'temporary communities'[18], combining personal connections with erotic expression and bonding these men into a unified group within a specific, and often limited timeframe. The shared interests among HIV positive

GBMSM for exploration and connection, meant that (1) chemsex activities became part of a cultural norm[43,58]; and (2) chemsex spaces became places of acceptance these men could access without the typical social disapproval they might have experienced outside of these networks[58,61].

Summary

This chapter is concluded with a reflection about what is known, or assumed to be known, about chemsex and the motivations that surround engagement in this practice and membership within this community. Focusing more specifically on GBMSM living with HIV, it is evident from the literature that factors surrounding participation in chemsex are multifactorial. However, with most discourses within this research being dominated by problems and risks, the voice of this particular group often seems to become muffled by negativity. Moreover, much of this research is generalized to the experiences of all GBMSM, thus excluding some of the nuances to engagement that might be more unique to those living with HIV. Without a positive direction, it is difficult to see how the voices of GBMSM living with HIV are being captured within the context of the available data: *are they speaking for themselves or is somebody else speaking for them*?

As the popularity of chemsex has broadened into more mainstream circles of GBMSM living with HIV, it is promising to see a new emergence of research focused on some of the positive aspects of this practice for personal, social, and sexual development of the men who participate. This new focus has helped to shift narratives way from an exclusive focus on risk; however, it has also in some respects, resulted in a polarization of research depicting the 'good' or the 'bad' aspects of chemsex. As with most pleasurable activities, there is always some form of risk that will be present. The degree to which one might experience these risks or suffer negative outcomes as a result of these risks will vary depending on how an individual views 'risk' or experiences certain outcomes as 'negative'. In other words, what is risky or painful or unhealthy for some, may not be what is necessarily reflected in the literature. Increasingly, it feels as though perspectives on chemsex, life, and health are being defined by groups other than GBMSM living with HIV. What is needed now is a shift in these narratives to allow these men to tell us how they

experience chems, pleasure, health, wellness, community, sadness, and pain and what (if anything) we can do as nurses to support them and their experiences.

CHAPTER THREE: THEORETICAL FRAMEWORK

"The folding or doubling is itself a Memory: the 'absolute memory' or the memory of the outside, beyond the brief memory inscribed in strata and archives, beyond the relics remaining in the diagrams."

— **Gilles Deleuze**

Introduction

Using a critical theoretical perspective, this research drew on the works of Deleuze and Guattari[155-157], employing the concepts of *assemblages*, *machines, apparatus of capture,* and *the body without organs* to explore the conceptualizations of knowledge and identity that form the subculture of HIV positive GBMSM participating in chemsex. At the outset, it is relevant to acknowledge Deleuze and Guattari's complex (and somewhat rigid) perspectives on substance use and the potential impact on how the various concepts were interpreted within the context of the research – particularly with respect to discussions about the functional capacity of drugs to deliver the *body without organs*. In reference to people who engage in substance use, these authors state that "all they will have done is make an attempt only nonusers or former users can resume and benefit from, secondarily rectifying the always aborted plane of drugs, discovering through drugs what drugs lack for the construction of a plane of consistency"[155,p.285]. Stated differently, drug use may momentarily disclose alternative modes of intensity and relation; however, from this perspective, because these experiences are inherently unsustainable, people who use drugs would be unable to integrate these experiences into stable or lasting ways of living.

This position has been productively reworked by scholars, such as Fay Dennis[158], who draws on Deleuze and Guattari's concepts to understand drug use as an emergent assemblage in which bodies, substances, technologies, spaces, and affects co-produce forms of more-than-human agency. From this perspective, Deleuzo-Guattarian concepts are empirically reoriented to account for the situated, relational, and potentially enduring capacities that arise within practices

of drug use, extending their analytic usefulness beyond the limitations articulated in Deleuze and Guattari's original formulations. Thus, while these critiques were acknowledged, it was felt it did not necessitate the rejection of such theory (and use of the foregoing concepts within the context of this study) in its entirety. In acknowledging these perspectives, consideration was made for the fact that concepts, in principle, refer to a general set of ideas or abstract understandings and while their applications have limits, they are not intended to function as absolutes, so long as they target power. As stated by Deleuze in his conversation with Foucault, "a theory is exactly like a tool box… [it] does not totalize; it is an instrument for multiplication and it also multiplies itself"[159,p208].

Despite these views, the foregoing concepts were selected as the theoretical foundation for this research as they show the subversive views of this sub-group, whose lives (living with HIV and having same sex partners), proclivity for 'risky' (non-mainstream) behaviours (e.g., chemsex, substance use, addictions), and personal strife (mental health, trauma, stigma) have been constructed in such a way that these men cease to exist within the social standards or 'norms'. As a result, HIV positive GBMSM who engage in chemsex find themselves outside the purview of what is broadly (socially) acceptable, while at the same time, inside a chemsex subculture (group) that normalizes their existence. Navigating these overlapping worlds can, however, create tension as men reconcile internal and external marginalization they sometimes feel against the affirmation and freedoms they also experience within chemsex communities.

Assemblages

As the first concept of interest, *assemblages* refer to the construction of human bodies as a collection of lines (forces) and flows (intensities) that have been organized, that is divided, to create a contingent whole (or designated character). These elements comprise multiple heterogeneous facets that form an identity, or claim a *territory*.[155] In other words, assemblages bring together dissimilar objects (e.g., sexual desire, crystal meth, disinhibition, HIV, mood issues) into a congruous and subjective entity (e.g., chemsex subcultures). Assemblages, moreover, are a multiplicity, produced through various transformations and permutations, which culminate to

function in connection with other assemblages and with other bodies – either human or inhuman (drug-using spaces, crystal meth or other substances, injection equipment, etc.)[160]. In essence, every assemblage is a territory, as one always exists within the other[155].

An assemblage is made up of various lines that operate at different rhythms, speeds, and flows within its marked borders, or territories[161]. These include[161,162] (1) *segmentary*, or *molar,* (rigid) lines that describe the fixed structures and effects of family, profession, gender, culture, etc., and which mark a position in a certain time and place; (2) *molecular* lines, which are micro processes that occur beneath the surface of molar lines and mark imperceptible deviations or crossings from riveted positions (social roles), allowing for subtle movement and flexibility; and (3) *lines of flight*, characterized by a complex process of disengagement from molar and molecular lines that mark a permanent transition – a resistance – in the journey of *becoming* in which "nothing has changed, and nevertheless everything has changed"[161,162p.127]. These three lines function interdependently in matters of identity development; they thus also hold inherent abilities, as components of these lines affix to various other assemblages[155].

Assemblages, furthermore, are highly malleable, meaning they can gather any number of lines or fragments to form its properties within a designated territory or space[155]. A territory should not be considered a permanent identity or persona (e.g., 'drug addict', 'HIV infected', 'mentally unstable', etc.), but rather, should be seen as a fluid construction of the body that differs in function or role depending on its established (bodily) connections[163]. In this way, the production of territories can be seen much like the production of prescription medication capsules, which have a clear coating around the exterior and different chemical compounds on the interior that produce different therapeutic effects depending on the physical and mental health status of the body that particular substances enters into (i.e., the assemblages it connects to).

The inner components of territorial assemblages are constantly subject to movement and change, and thus *territories* represent transient structures that exist within a particular context[163]. The territoriality of assemblages is composed of two segments – one of content and one of

expression. Content gives assemblages its practical function (i.e., actions, passions, feelings), while expressions are the signs and statements that attribute meaning or properties to bodies[155]. In this way, every assemblage functions as a *machinic assemblage*, whereby the human body creates connections with other bodies or objects to create new and transformative experiences (e.g., chemsex pleasures, personal connections, self-fulfillment). Assemblages are thus configurations of desire, for desire itself is created in association with assemblages[155].

Because assemblages are not fixed entities, they are constantly being made and unmade as new connections are formed; they are in an ongoing state of transition[155]. As assembled bodies, HIV positive GBMSM who engage in chemsex are continually shaped by their actions and interactions with people (society, peers), structures (public health or healthcare), or activities (substance use, sexual contact). The territorial nature of assemblages brings elements together, while lines of *deterritorialization* cut through these connections subverting traditional social roles regarding sex, intimacy, and health and allowing partial connections to *reterritorialize* into new norms, identities, and connections within chemsex subcultures (to re-invent oneself)[155]. Assemblages of HIV positive and chemsex using bodies therefore, function in perpetual movement or transition, as they make associations between other bodies (mouth, anus, penis, semen) and objects (crystal meth, needles, pipes, puffs of drug smoke) – creating different subjectivities (actions or expressions) within these physical and corporeal connections[155,160].

Machines

A machine is directly defined as a "system of interruptions or breaks"[155p.36]. This definition refers to the connection of organs – as components that incorporate energy into living bodies[155]. A machine has no pre-determined role or identity; it works in different ways depending on its associations with assemblages (spaces, objects, people) and the process by which flows are cut and connected to other machines (as a person connecting to a whole or its parts)[162]. These constant breaks, or combinations, in patterns are what defines machines, because they, like assemblages are in a continual state of flux. The production of machines is thus marked by

changes in personal desires or social performances, which can be both creative (e.g., accessing fantasies, experimenting with drugs and sexual pleasures, resisting public health messaging) and destructive (e.g., potential for developing addictions or secondary mental health issues).

Everything, in effect, is a machine. A drug is a machine for regulation, rebellion, flight, rest, or wellness. A hand is a machine for movement, expression, feeding, or pleasure. The functional tasks of machines are based on the interactions between, or production of, various bodies and organs. In this way, human beings, as machines themselves, connect with multiple objects (people, body parts, spaces, etc.) to become another machine[155,162]. As Deleuze and Guattari[155] note, all machines are produced under the same basic conditions: by fastening onto pre-existing (territorial) assemblages, while simultaneously opening themselves to new connections and closing off connections to others. However, the outcome of every machinic effect can vary depending on what forces are created through its connections (e.g., desire, lust, intoxication, attachment, wellness, belonging, etc.) and the signification that is supplanted onto that machine (e.g., order, autonomy, resistance, escape, community, acceptance)[155].

This research focused on two specific types and functions of machines as described by Deleuze and Guattari, including the *desiring machine* and the *war machine*.

Desiring Machine

The desiring machine is created through its connections with other objects and machines. In this case, objects give desire the means to not merely express itself, but to form something constructive. Deleuze and Guattari[157] describe the desiring machine as a binary system – in that, it always involves a coupling of flows for its production, whereby one machine siphons flows from another (a flow-producing machine) to produce a desiring effect. By nature of the 'biform' relationship between machines, in terms of their continual connections and flows, desire becomes an endless series of variations and permutations[157]. Between each linkage of partial objects and flows, a force of energy is taken up by the organ machines, that produces a corporeal effect: "the

eye interrupts everything – speaking, understanding, shitting, fucking – in terms of seeing"[157 p.6]. However, for every connection that is made, a machine (with its own connections) forms in its place, meaning that, what is recognizable is limited to the production of flows of that machine[157].

A desiring machine serves a social function, for "desire produces reality"[157 p.30]. In this way, social productions and desiring productions are co-created based on the dependency of one to inform the movements and activities of the other (i.e., with the social suffusing that which is desired). Deleuze and Guattari[157] note that the difference between desiring machines and technical-social-machines is one of *regime*, or, put more simply, the regulatory forces imposed on these machines based on their associated connections to assemblages – in which the former is viewed as a form of "anti-production" to the latter[p.31]. Indeed, the desiring machine is said only to function in a state of malfunction, where partial objects and flows are supplanted onto machines to make desire operate within that particular series of connections[157].

As such, desire is more than just a fantasy or imagination of what one *lacks*; it produces an action; it provides an expression[157]. The desiring machine becomes the site of that production, as the machine connected to other machines – other bodies, organs, tools, or parts – in which physical and somatic productions of *wants* become the actions and expressions of the desiring machine[157,162,164]. While desire is typically considered as concupiscence toward other bodies (e.g., other men) or physical parts (e.g., torso, mouth, penis, anus, hands), it is not inherently sexual in nature[164]. Desire can manifest as a spiritual or emotional connection (e.g., comfort following personal or emotional trauma, engaging in peer support services), a common experience (e.g., bonding over an HIV diagnosis or shared stigma), or a temporal escape from reality (e.g., connection, sexual experimentation, hallucinations, delusions). In each of these examples, desire becomes the driving force of the desiring machine – its very production creates an effect that "make[s] us an organism"[157,p.8]. In this "production of production", an endless number of relationships are created through attachment or detachment of machines into components of others[157,162,p.5]. While the main function of social production has always been to regulate flows of

desire, new conditions can arise when channels are not properly codified – resulting in desiring machines freeing themselves – and by extension, liberating social production of desires[162].

War Machine

The second machine is the war-machine, which is a "form of social assemblage directed against the state"[165,p.4]; its primary function is therefore to upend the State and challenge the status quo. The war machine is a multiplicity in its purest form, a unique entity, that sees beyond the established (binary) structures of the State and into relations of change, or *becoming*[156]. The war machine can then be said to involve acts of resistance against the conventional norms that circumscribe its behaviours to allow these connections to transmute anew; it marks a shift in the production of assemblages that draws its forces into something else entirely[162,166].

The war machine exists as a congregate of emotionally strong connections (often referred to as "bands or packs"[156,p.13]) that avoid fixed hierarchies and seek to create space for difference, or alternate ways of life[156,162]. These groupings are primitive in nature and thus, do not subscribe to any fixed social order – their focus namely, is to prevent stable forces (the State) from inserting themselves into the current of flows by replacing flows with an intrinsic webbing of *rhizomatic* (i.e., diffuse or polymorphous) connections[156,162]. The war machine works by replacing striated (socially regulated) spaces with smooth ones (of independence) occupied by groups of resistance (e.g., radical sexual practices)[156]. These smooth spaces are found wedged between two striated ones (charged with vertical or arborescent lines), which limit subjectivity by opposing the development of horizontal lines (molecular, lines of flight), or personal autonomy[156]. In other words, smooth spaces are flanked by the roots of striated spaces that attempt to keep them riveted and unchanged; limiting production of smooth spaces means that social production (order) continues to flow without interruption. For GBMSM living with HIV who engage in chemsex, striated spaces become marked by social norms and boundaries (e.g., condom use, monogamy), while smooth

spaces allow for a release from these (social) confines through the freedom of sexual expression and cognitive escape elicited by crystal meth and carnal sex.

The goal of the war machine becomes to *deterritorialize*, or break apart, the fixed boundaries (striated spaces) occupied by the despotic-(State)-machine (which establishes and maintains current social state-of-affairs through stringent organization of territories – i.e., *it maintains the status quo*), to create the smooth (free) spaces in which difference is both accepted and cherished as the new established norm[162,165]. Not only does the war machine operate outside of the apparatuses of the State (as a system of governance) and the despotic-(State)-machine (as an authoritarian form of the State), but it is considered to be "a pure form of exteriority" [156, p.5] in comparison to the linear (molar) structures imposed by the State (e.g., medical hierarchies of health). The war machine, as an extrinsic force, de-subjectifies the actions and expressions of its inhabitants, allowing for physical bodies to autonomously reinvent themselves – for example, into chemsex subcultures[156]. In many ways, it acts as a metaphor for movement outside of the organized flows of the State and its inscribed mandates for functioning.

An important distinction, however, must be made between the war machine and the despotic-(State)-machine, which is that the war machine is not in conflict (i.e., 'at war') with the State; it does not harness any militarist purpose[165]. While the war machine does involve certain processes (e.g., resistance, freedom, activism), 'war' is simply the force that limits the exchange of segmentary or molar lines and prevents their coalescence into fixed shapes[156]. One condition of 'war' is that the war machines can only free themselves when they create something new at the same time. Their movement is not an act of direct disobedience; it is a release from the structures that inhibit its free-form relations, or that which can *become*[156]. For HIV positive GBMSM, chemsex subcultures become a 'new universe' where they can separate themselves from the regulatory processes (as imposed by the State and its machine) within their everyday lives and "instead [reconstruct]… perspectives around other ways of seeing and relating"[165,p.8].

Chemsex activities, including the release of sexual energy and establishment of connections (assemblages), are a way for GBMSM living with HIV to *become* something – or someone – else.

Apparatus of Capture

The apparatus of capture refers to the regulation of individuals' behaviours through various institutions, systems, and structures that capture individuals (e.g., GBMSM living with HIV) and groups (e.g., chemsex subcultures) by channeling their desires, actions, behaviors, and relationships into particular (socially domesticated) patterns. In other words, the apparatus of capture is a way of understanding how the State (or society) tames its subjects by ensnaring their potential for personal autonomy and social freedom within the confines of social order. According to Deleuze and Guattari[155], there are two main components of the State: (1) a political power, which consists of two poles that on one side, contain, and on the other side, compact, individual actions and liberties; and (2) a war function, which exists exterior to political power but is distinct to both components of this power. The dynamics of the State will vary as different forces within the two poles of political power attempt to gain authority or governance by imposing different patterns of rules (acceptable set of values, norms, beliefs, behaviours) and idioms (fixed ideas about what constitutes health, wellness, risk, deviance) onto individuals in order to shape how they identify, act, and function within society at large.

It is important to note that the apparatus of capture is not always enacted through direct obtrusion, coercion, or force between the poles of political power and the function of war. Indeed, these operate as a consequence, not necessarily a cause, of the dynamics between the State and the *war machine* – whose function is to upend the established structures of the State (or despotic state machines) into relations of change, or *becoming*[156,162]. The force of the apparatus of capture generally acts more as a subtle form of control, as it molds and shapes war machines into a machinic assemblage or takes war machines for its own use within the State apparatus. Its ability to have this effect and affect is because war machines exist in relation to the State: "either exterior to the State and directed against or; or else it already belongs to State… in conjunction

with other internal factors"[155,p.427]. In order for the State to 'capture', the two poles of political authority have work in harmony: to mark fixed territories of ideas, identities, beliefs, behaviours and reterritorialize (organize) these fixed elements into established social norms, or values.

Seen as a "magic capture"[161,p.427], these imperceptible forces enacted through repetitive actions seize control of the flows of desire (e.g., for pleasure, connection, escape, health) and channel them in ways that serve and maintain the order of the State (i.e., dominant structures of society); thereby maintaining the status quo. As with most processes within the apparatus of capture, its formation is subtle; there are no distinct causes as to how or why these occur; they exist as a precondition of a possibility[155]. Moreover, apparatuses of capture are a multiplicity, meaning that flows of desire can be territorialized and reterritorialized on various planes (from personal, to social, to institutional, to governmental)[155]. Herein, references to 'the State' have been used more generally to refer to different forms of hierarchical powers that can dominate and regulate how individuals and groups live and interact within another in society. However, apparatuses of capture can take many different forms or flows within the social stratum. For example, public health institutions capture people living with HIV into treatment to render them non-transmittable; crystal meth (as a substance) captures participants when they become dependent on drugs for sex; low self-esteem captures individuals into isolation, making them feel unworthy or unable to engage with other people. The apparatus of capture is thus, not solely imposed externally, but is also internalized and produced through social mechanisms.

Body without Organs (BwO)

The plane of consistency or Body without Organs (BwO) refers to de-organized and de-stratified matter of heterogenous parts; essentially, a socially unregulated body existing as a collection which refuses social organization. The BwO was established by Deleuze and Guattari[157] as a means of countering the more prescriptive components of psychoanalysis (most notably, Freud's preoccupation with psychosexual infantilism), focused on subjectification, including the ways in which individuals are subjected to various forms of observation, analysis, interpretation,

recognition, that label and define their bodies – i.e., how they are stratified[167]. In their critique of psychoanalysis, Deleuze and Guattari[155,157] argue that the Capital (or in this case, social regulations and or hierarchies of health) articulates and defines individual bodies, inscribing certain strata (or tags) which capture and mark a person's identity and coinciding place and role within society. Not only does this process of stratification label and control individuals, but it can also bind bodies into dogmatic arrangements of its organs and parts, thus inhibiting their freedoms to become someone or something different within the confines of social subjectification[155,157,167].

Machinic assemblages, as a collection of lines and flows that give form to desire (and thus, shape human bodies), face one side of the strata and are territorialized as fixed (stratified, subjectified) entities, establishing their position within society[155,157]. On the other side of these assemblages, is the BwO, which dilates, beats, pulses, constricts in alignment with the strata, waiting to be developed into something new. As Deleuze and Guattari[155] note, "subjectification carries desire to such a point of excess and unloosening that it must either annihilate itself in a black hole or change planes" [p.134]. Re-orientation of assemblages toward the BwO, thus requires destratification or deterritorialization – only after stratification has occurred on a particular plane or body. Desire is then repositioned from the prescriptive categorizations (categorizations, diagnoses) of the psychoanalytic approach as a *productive machine*, meaning that it is constantly in a state of change – flowing in and out of bodies and forming and reforming various permutation to create openings for new modes of experiences[155,157]. In other words, the BwO is what remains when social and personal subjectification (observation, analysis, interpretation, recognition) is completely removed from the body.

Deleuze and Guattari note some important components of the BwO. First, is that these planes of consistency do not operate in opposition or defiance of subjectivity[155,157]. Indeed, it exists simultaneous and adjacent to fields of stratification – occurring everywhere and nowhere. Second, is that the BwO does not equate to a hollowed, organless body; it is simply opposed to machinic assemblages that organize and define[155,157]. The BwO is in a constant state of becoming, waiting

for flows of desire to be taken up as new experiences and to be constructed into a new form of being. The particular formation of the BwO will depend on its fabrication (type, formation, procedures) and its modes in relation to existing bodily productions of desire; it will never form the same way twice. For example, a *sexualized body* might have a controlled idea about how pleasure is experienced; experimentation with chems, however, can become a BwO that palpates sensations and excitement to achieve sensations not previously known. The BwO is thus not attempting to subvert bodies into something they are not because they pre-exist in the structures that try to subvert it in the first place. Rather, it is a process to experience new possibilities or potentials of being outside of the structures that are imposed on human bodies (e.g., pleasure being experienced to a threshold); it is a way to shed the self-imposed or socially assumed notions about someone. Deleuze and Guattari[155,p.30] capture the essence of the BwO as follows:

> Whenever someone makes love, really makes love, that person constitutes a body without organs, alone and with the other person or people. A body without organs is not an empty body stripped of organs, but a body upon which that which serves as organs… is distributed according to crowd phenomena… in the form of molecular multiplicities.

There is, however, a delicate balance to the development of the BwO. Because they operate within existing machinic assemblages, they also have to ensure they maintain some form of connection to these structures, or else they run the risk of destroying themselves and becoming reterritorialized into the systems of subjectification and stratification they fought to free themselves from[155,167]. On this point, Deleuze and Guattari[155] note two instances of 'failed' BwO in which bodies inevitably become organized or re-subjectified, including: (1) *cancerous*, in which BwO become caught in cyclic, repetitive patterns of reproduction – e.g., chemsex bodies risk becoming addicted bodies that are dependent on drugs for sex or drugs for personal fulfillment; and (2) *empty*, where BwO enter into a comatose or 'cataonic' state as a result of absolute deterritorialization of flows and intensities (much like a deflated balloon) – e.g., chemsex bodies risk becoming withdrawn bodies when dependent on drugs for functioning. In order to reach their

full potential, the BwO must remain *full*, meaning, it avoids becoming over-organized, allowing it to remain continuous, infinite, and ever-changing in its surrounding structures[155].

Summary

The foregoing concepts, as explained by Deleuze and Guattari, provide the underpinning of the theoretical framework for this research. Combining the concepts of assemblages, machines, apparatus of capture, and body without organs provide context for the at times, converging confrontations of power that shape the identities (feelings, actions, autonomies) of GBMSM living with HIV who engage in chemsex as they seek to find liberation within themselves, within the subculture of their peers, and within the hierarchies of good health, risk aversion, and heteronormativity that subjugate these movements. Indeed, in the words of Deleuze and Guattari[155],[p.462] "the question is not that of freedom and constraint, nor of centralism and decentralization, but of the manner in which one masters the flows". Freedom is not something one can simply attain and then possess, but rather, it is an ongoing, creative force that emerges through continuous change and experimentation; it is always in the process of *becoming* something or somebody else. Part of this becoming, however, is the ability to not only, reject existing systems of authority, but to continually transform oneself into new ways of being and relating. Doing so, however, requires reflection of different forms of power that operate in and around chemsex subcultures and how GBMSM living with HIV can pass through planes of consistency, cutting across and rearranging lines of development to create new possibilities[155,157].

CHAPTER FOUR: METHODOLOGY

"Lose your face: become capable of loving without remembering, without phantasm and without interpretation, without taking stock. Let there just be fluxes, which sometimes dry up, freeze or overflow, which sometimes combine or diverge."

— Gilles Deleuze

The methodology selected for this thesis was critical ethnography without direct observation. This chapter provides details on critical ethnography as a qualitative approach and explains how the inner workings of the chemsex subculture among HIV positive GBMSM were captured using only participants' spoken, and unspoken, words during semi-structured interviews. This chapter also details the study protocol, including data collection and thematic data analysis, and addresses the rigor, reflexivity, and ethical considerations underpinning this qualitative research study.

Study Design

Critical ethnography

Ethnography is a research methodology focused on understanding the intricate social and behavioural dynamics of a given culture – or in this case, subculture – of individuals. Its origins are rooted in anthropology, which began in the late nineteenth century with Western researchers studying the daily activities, interactions, and dynamics of remote social groups and generating reports on how these 'exotic cultures' functioned[168]. Further developments in ethnography occurred in the twentieth century with the work of sociologists in the Chicago school, who applied elements of anthropology to study culture in its normative, or everyday, formation[168,169]. This change in approach was marked by a shift from studying remote cultures to studying the activities of local case settings and groups[170,171]. These anthropologic and sociologic influences were subsequently combined to form ethnography and adopted by various disciplines to understand human behaviour through the examination of language, movements, symbols, and interactions[172]. Over time, ethnography has been established as a popular qualitative approach, influencing explorations of social life from a number of disciplinary and epistemological perspectives[168,169].

Current applications of ethnography reveal how behaviours are influenced by social context, and the influence individual behaviours can have on processes and dimensions of groups under study[171]. The means by which these aspects are uncovered can take various perspectives, including collection of artefacts, direct participant observation in the field, and qualitative interviews. The goal of undertaking such research is to describe culture through detail-rich accounts of participants' experiences based on their designation within a particular group and the inherent social rules, values, and beliefs that structure designation within that specific group – i.e., what makes it a culture[171]. This approach is particularly advantageous for studying marginalized populations who may have experienced challenges interacting with healthcare providers or the healthcare system, including ethnic, racialized, or sexual minority groups, among others[172,173].

A critical ethnography takes the interpretation of culture focus one step further by exploring the power relations that operate within a given social group – including the hidden dynamics that individuals weave to create their own social fabric and how this connects within the tapestry of the broader social hierarchies that operate in and around a subculture under study[174]. The interpretation of 'power' and its dynamics can take on various forms as researchers consider the taken for granted aspects of power and oppression within how individual characteristics define a group, how that group functions as its own subculture, and how specific subcultures operate within smaller and more broader cultures of which they are also a part of[174,175]. What defines the research as critical ethnography, however, is its possibilities for critique (challenging assumptions) about a specific culture and revealing alternate perspectives on truth for the group under study[174].

In order to disrupt the status quo, researchers must embed themselves within a particular culture to understand "how human actions and experiences are generated by these social worlds and, in turn, how these social worlds are generated by them"[174,p.7]. A fundamental aspect in this position is that every culture functions as its own entity – meaning that, each group has a unique set of values and characteristics that make it distinct from other, similar groups[176]. Critical ethnography is thus less concerned with particular set of methodological rules or formulas – but

rather, emphasizes the importance of the positionality of the researcher within their research to understand culture to create change for others. Specifically, Fine[177] discusses three central components of qualitative research that underpin the position of researchers when undertaking critical ethnography, including (1) a "*ventriloquist stance*" where researchers ask questions or collect observations to capture data, but remain hidden within this data; (2) allowing the *voices* of participants to remain at the forefront as they describe (through objects, actions, words, or behaviours) their experiences of oppression; and (3) *activism*, where researchers who are formed and informed by their interactions with participants, take action to expose the injustices within these experiences and advocate for alternative actions to produce "emancipatory knowledge and discourses of social justice" for more marginalized groups[178,p.6]. Given that all three of the foregoing components are considered relevant for undertaking critical ethnographic work, the research was conducted with each aspect deliberately in mind.

With the "overriding goal of critical ethnography to free individuals from sources of domination and repression"[179,p.197], the methodology of this research sought to explore the forms of oppression that operate within and around the subculture of HIV positive GBMSM who engage in chemsex, including the repressive effect that mainstream social norms and nursing and other healthcare regulations can (directly and indirectly) have on their overall group functioning.

Ethnography without direct observation

Hammersley and Atkinson[171] describe the main features of ethnography as follows: the study of participants' actions in their everyday contexts; selection of methods from a variety of sources, with "participant observation and/or informal conversations" being most important (p. 3); use of an unstructured approach to data collection and analysis; small-scale investigations, such as a single setting or group, to facilitate in-depth interpretations; and production of descriptions or explanations of culture as the final outcome. This critical ethnographic study employed the approach of Hobbs[176, p.103], who positioned ethnography as a "cocktail of methodologies that share the assumption that personal engagement with the subject is key to understanding a particular

culture or social setting". Under this approach, qualitative interviews along with a self-administered questionnaire were used as the only sources of data.

The rationale for selecting interviews as the primary source of data collection for this ethnography was three-fold: (1) there were potential safety risks associated with observing individuals who were actively consuming, or under the influence of, illicit substances in unregulated environments – such as personal homes, (2) many of the environments where chemsex activities take place, including private parties, clubs, or bathhouses were inaccessible and there was concern for the potential for influence on the authenticity of participant interactions if a researcher were to be present in these spaces; and (3) established literature describing practices related to chemsex pointed to a lack of indication that observations of sexual and substance using activity would enhance understanding of the proposed phenomena[133,162,171,180]. Similarly, artefact collection was omitted from the data collection methods as the aims of this research were identify the norms and behaviours of HIV positive GBMSM, which were best explored through one-on-one interviews with participants[171].

Data Collection

Self-administered questionnaire

Along with the interviews, participants were asked to complete a self-administered questionnaire containing 34 questions related to HIV treatment and care, sexual health, mental health, chemsex practices, and substance use practices (see Appendix I). The estimated time to complete this was between 15-20 minutes. The purpose of this questionnaire was to gain descriptive data of the participants so as to better understand aspects related to the research objectives; however, participation in the overall research was not contingent on completing the survey. That is, if participants were unable or declined to complete the questionnaire, they could still complete the interview. An e-mail link to the survey hosted on the secure online platform SurveyMonkey was sent to all participants who completed an online interview and paper copies were printed for any

person doing an in-person interview. After obtaining verbal consent for participation, individuals were asked to complete the survey directly after the interview (via paper or SurveyMonkey).

Interviews

Hammersley and Atkinson[171,p.7] note, "a first requirement is… fidelity to the phenomena under study, not to any particular set of methodological principles". The phenomena they are specifically referring to here is, *culture*. In cases where direct observations might not be able to answer a specific ethnographic investigation, such as this study, researchers can instead, use the *ethnographic interview*, which uses oral accounts obtained from participants to develop the deep interpretations of culture desired in undertaking ethnographic research.

The basic premise of ethnographic interviews follows those of other qualitative research approaches: in order to understand a particular issue or phenomena, researchers must obtain insights directly from the perspective of participants[181]. In the context of ethnography, these elucidations of participants' lived reality are obtained using oral accounts collected during in-depth interviews[171]. Within these spoken words are descriptions of participants' experiences, assumptions, preferences, and positions about life within their world. These findings are subsequently analyzed by researchers to form larger (or more broad) interpretations about cultural groups and the context in which these cultures are developed and maintained[171,182].

Inclusion Criteria

The inclusion criteria for this study were designed with the intention of attracting potential participants with shared experiences and engagement in chemsex. Given that this specific phenomena of study is primarily observed among GBMSM and the specific focus for this research was on those living with HIV, the inclusion criteria involved participants who: (1) were 18 years of age or older; (2) identified as guys (including cis-men, trans men, and non-binary or gender non-conforming with external genitals or penis); (3) reported engaging in sex with men – exclusively or not – and irrespective of described sexual orientation; (4) were living with HIV for at least 12 months, which is the period of time for most persons living with HIV to have progressed from initial

diagnosis and treatment initiation to clinical stabilization (characterized by viral load suppression <20 copies/mL)[18]; and (5) reported having engaged in chemsex or PnP experience in the past 12 months – so as to capture recent accounts of participants experiences with chemsex.

Recruitment and Sample

In keeping with the tenants of the ethnographic interview, the first step was to identify potential participants by establishing relationships with key informants or gatekeepers[169]. These were individuals who held some type of leadership or authority within a cultural setting (e.g., clinic or unit manager, community leader, group facilitator), and who could assist with study promotion and/or participant recruitment[183]. In seeking participants for this study, the aim was not to fill a specific sample or quota, but rather, to locate individuals who had membership within a chemsex subculture and fulfilled the inclusion criteria – i.e., who had knowledge related to the phenomena of focus, and who were willing to share their sentiments and experiences[171,184].

For this study, recruitment occurred primarily through promotion by community service agencies and by word-of-mouth or snowball sampling from persons who had already participated. Physical posters were displayed in community agencies who provided services to GBMSM, including AIDS service and community wellness organizations (refer to Appendix II for a copy of the study recruitment poster printed and shared via social media). A digital poster was also provided to these organizations who created and shared social media posts promoting recruitment on their Instagram, Facebook, and X (formerly Twitter) accounts. The poster provided details on the inclusion criteria for the study, compensation for participation, and contact information for the researcher (including e-mail and phone number they could email, call, or send a text message). Persons who were interested in participating were instructed to contact the researcher where a brief review of eligibility criteria was completed prior to obtaining informed consent to ensure potential participants fell within the specified inclusion criteria for the study.

No recruitment occurred in the healthcare setting where the researcher was employed, as there was concern regarding a potential conflict of interest for participants who may have

accessed this clinic for services in discussing aspects related to their health, substance use, or sexual risk practices. Participants were informed of the researcher's clinical position prior to obtaining informed consent and advised that any statement made before, during, or after the interview would not be used or shared in the context of the researcher's clinical position.

For ethnographic studies, the desired sample size can vary anywhere from 5 to 50 participants depending on the phenomenon of interest and data collection approaches[185]. Because this study used ethnographic interviews as the primary source of data and because the population of interest was so specific in nature to HIV positive GBMSM who engaged in chemsex (where, in Canada, the estimated prevalence of chemsex among GBMSM of any HIV status ranges from 5-20%), the estimated sample size for this study was 10 to 20 participants[186]. Recruitment and interviews continued until theoretical saturation occurred. Theoretical saturation was not concretely defined by the length or number of participant interviews, but rather as the point in the research where no new themes, insights, or data emerge within the data (in this case, the interviews)[174,178]. That is, while an individuals account of their experiences may differ, the thoughts and ideas within these narratives continue to fall within the observed patterns and themes. In the context of this study, at total of 15 individuals were recruited for participation.

Research Setting

The second step for preparing for the ethnographic interview was the selection of the research setting, which can vary depending on the culture of interest[171]. In some cases, the group under study will be located in a central space, such as a clinical setting or community space or drop-in centre. In other cases, members of a group will be spread across geographic areas. In ethnographic studies, interviews should be conducted in locations that are most familiar to participants to make them feel more at ease and, thus, more comfortable with sharing personal information [184]. On this, Hammersley and Atkinson note "the 'artificiality' of the interview, when compared with 'normal' events in the setting, may allow researchers to "understand how participants would behave… when they move out of the setting or when the setting

changes"[171,p.112-113]. Ultimately, decisions about where interviews will occur should be made in collaboration with participants – and as much as possible, be adapted to their preferred context[171].

For this study, participants were offered the option of conducting their interview either in-person (in a private office at the University of Ottawa) or online (via Microsoft Teams). Given the nature of the topics within the semi-structured interview guide, the estimated time required to complete the interviews was between 60-90 minutes. Microsoft Teams was selected as the platform to host online interviews as it had end-to-end server encryption for added security and secure video and audio-recording features to ensure confidentiality[187]. For those who selected to complete their interview online, participants were advised during the informed consent process that their interview would be recorded but had the option as to whether tor not hey had their camera on or face visible. Those who did elect to have their cameras on during interviews were advised that their images would not be used in any type of publication. Interviews conducted in person were audio-recorded by hosting a Microsoft Teams meeting to obtain the transcription, but no video was recorded during these sessions.

Interviews were conducted between December 29, 2022 to September 20, 2023. These were held primarily online – with one interview conducted in person involving two participants who preferred, and consented, to conduct their interview together. Fifteen participants were interviewed; however, during the course of one interview, a participant revealed that they did not engage in sexualized drug use or in sex with same-sex partners; this interview was excluded, leaving a total of 14 interviews which were transcribed for analysis. Interviews ranged in duration from 45 minutes to 94 minutes, with the average interview length being approximately 71 minutes.

Engagement with Participants During Interviews

The last step in preparing for the ethnographic interview was to ensure the structure of the discussions were formatted in such a way that a fulsome understanding of culture could be expressed in the absence of other ethnographic data collection methods. While oral accounts of participants' experiences within a given culture can be obtained through several sources of

interview data, such as informal conversations or group discussions[171], the most useful approach is one-on-one interviews, where researchers engage in conversational-type dialogues to gain insights from participants[169,171]. These interviews should (1) take a non-directive approach to encourage open communication about the phenomena of interest and (2) accommodate language and terminology most familiar to participants[188]. This is not to say that researchers should engage in idle verbal exchanges with participants; interviews should be structured with a specific purpose to meet the research aims[171]. They should, however, be formatted in such a way that they allow researchers to build a rapport with participants and encourage open discussion about issues or items that might not have been previously considered[181,189].

Prior to initiating the interviews and recordings, eligibility was verified by reviewing the study inclusion criteria. Informed consent was obtained by reviewing the research consent form in full and obtaining verbal consent for participation (see Appendix III for a copy of the consent). A digital copy of this consent form was also provided via e-mail to all participants for their records. To achieve rich, thick interpretations of culture from oral accounts, a semi-structured interview format was established *a priori* – given its advantages to elicit raw and emotive descriptions of participants' experiences[184,189]. To facilitate these discussions, interview prompts were prepared, which asked open ended questions related to the topics of chemsex experiences, HIV diagnosis, treatment and care, mental health, and substance use (see Appendix IV for a full list of interview prompts). These questions served as a guide to explore some of the major themes related to the research questions, but discussions took various forms and patterns in order to facilitate exploration of areas of importance raised by participants during the course of the interview[189].

Initial transcription of the 14 interview recordings was auto-generated in a Microsoft Word document using the Microsoft Teams application, which provided a verbatim written transcription of the discussion. These transcriptions were then verified by listening to the recordings against the Microsoft generated transcription and making edits to the transcription where the system missed or misinterpreted words. In the absence of direct participant observations, this verification

of the transcripts against the recording also provided an opportunity to create a connection to the participants and their data – taking note of words and vocabularies they used to explain the dynamics of their position in relation to the setting, participants, time, circumstances and activities of their experiences and the background noises and pauses, intonations, hesitancies, and emphases they placed on their words or statements as they recounted these stories[171,184].

Data Analysis

Applied thematic analysis

Applied thematic analysis was selected as the method of data analysis for this study using the approach of Guest and colleagues.[190]. This analytic process involves an inductive approach to qualitative research, where the researcher uses an exploratory process to recognize and recount implicit and explicit ideas within the data, which are labelled, and subsequently organized into codes and themes to create an overall narrative of the data[190]. The primary advantage to applied thematic analysis is that it is able to capture the complexities of participants' experiences based on emerging narratives within the data – more specifically, it allows participants' voices to be heard clearly and concisely[190]. Moreover, in the context of poststructuralist critical ethnographic research, applied thematic analysis is useful to uncover how discourses shape what is thought or felt and to identify reflections of power and resistance within participants' experiences[40,174]. In other words, this approach supports the fluidity of the interpretation of participants' spoken words.

The selection of applied thematic analysis also facilitated interpretation of the data within the iterative flow of a critical ethnographic approach where "data are treated as materials to think with, to facilitate production of new ideas, and… to clarify ideas developed from the research literature or elsewhere"[171, p.167]. Because the tenants of ethnography require researchers to embed themselves within a culture under study, it was important that the analytic approach lend to discovery (and eventual revelation and liberation of their experiences) of HIV positive GBMSM who engage in chemsex and for the researcher to remain present and a part of the dynamic that

was co-created between participants during the data collection process – i.e., to "embrace getting lost" in the data[174, p.14] together.

Guest et al.[190] uses a systematic analytic approach to data analysis. To begin, a transcript of the audio and video recordings was automatically generated using the Microsoft Teams application. Following completion of each interview, these initial transcripts were transferred into a Microsoft Word document. Initial transcripts were reviewed by listening to the recordings and verifying and editing the text in the document to generate a full and complete transcript of the interviews[190]. As part of this review and editing process, subtleties spoken by participants during their interviews, such as laughter, exclamations, pauses, uncertainty, sadness, etc. that were missed by the Microsoft generated transcript were also added into the text to ensure these could be used as verbal observations in the analysis. Interview transcripts were then read in full without taking notes or assessing any verbal observations to develop a preliminary view of participants' overall stories. Each interview transcript was then re-read in full with a focus on interpreting the thoughts and meanings participants attached to their verbal statements and vocabularies, which helped the researcher become more embedded in participants' narratives[190].

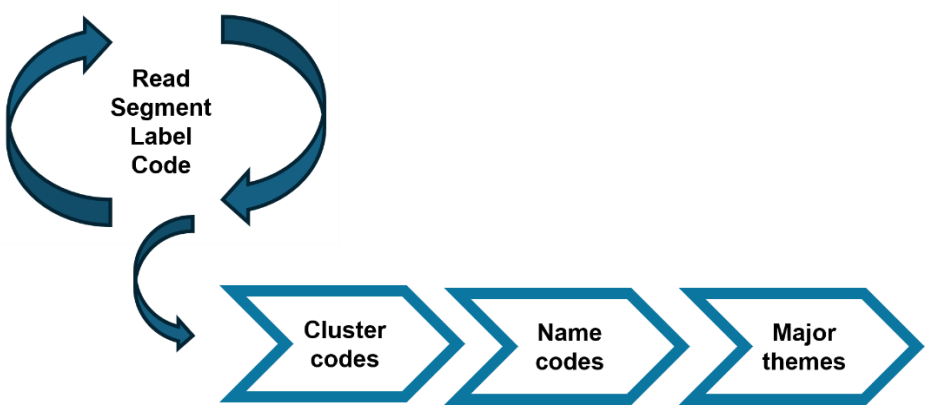
The process of analysis then continued with segmentation of the text, which is an integral step in 'mapping' the research data – i.e., to determine the general quality of the data and to assess the facets of text and potential relationships (convergence or divergence) within it[190]. The utility of text segmentation is that it captures the multidimensionality of the data, allowing researchers to identify elements within what was spoken by participants (including non-verbal communications, such as pauses or intonations) and within the data set as a whole[190]. For this analysis, text was segmented by establishing boundaries at the beginning and end of thoughts and ideas within in the text, which gave a fluidity to the analysis[190]. During the initial reviews of the interview transcripts, text was segmented and simultaneously labelled according to possible ideas or observations about what was occurring with these statements and why; these labels were added to a codebook[171,190]. Per Madison, "this process of grouping is not only about putting

similar categories together; the very selections and act of grouping are creating a point of view or statement"[174,p.50]. While identifying similarities within the text took precedence, coding was also done with analysis in mind (since the themes from coding guided the analysis)[174]. Text segments were transcribed onto individual adhesive pieces of paper (aka 'Post-it notes') and placed on a board which was used as a visual cue in addition to the codebook to organize the data. At various points in the initial segmentation and labelling phase, the codebook was reviewed to determine potential emerging patterns within the data and initial definitions were set as to what these labels did or did not represent within the context of the overall data, as well as any possible relationship between these groupings[190]. In subsequent reviews of the data, labels from the Post-it notes and codebook were clustered by similarities and coded and defined according to the shared meaning of those group labels[190]. Given the distinct topics defined in the research objectives and discussed in the interviews, codes were arranged into the sub-groupings of chemsex, substance use, mental health, HIV, and health; some codes appeared in more than one topic grouping.

This coding process occurred ongoing – as the text was reviewed and re-reviewed, the codes and definitions were continually refined within the codebook[171,190]. Once the coding process had concluded, codes were assessed for recurrences, overlaps, similarities, and differences within the sub-groupings of topics and within the research as a whole[171]. Individual codes were ranked based on recurrences within the interviews and their alignment with the research objectives; those codes that appeared most often within the individual sub-groupings were considered as possible themes due to their overlap between participants[174]. Topics that were discussed infrequently were considered as outlying data from the themes and narratives of the group as a whole[174,190]. Major themes were developed by naming and fully defining the identified codes to capture the key features of these themes[190]. These themes and their definitions are used to identify the core meaning of a response or expression, and thus give representation of the data within the context of the study[190]. Themes for this analysis were developed using homogeneous (e.g., concepts with similar meanings or content) and heterogeneous (e.g., concepts with differing

meanings or content) principles from the sub-groupings of the research topics to identify distinct elements related to the phenomena of interest[171,190]. Finally, these themes were sequenced to create an overall narrative of HIV positive GBMSM who engage in chemsex.

Figure 4.1: Applied Thematic Analysis Process



Rigor Strategies

Rigor is an integral component in qualitative research studies as it helps to establish the trustworthiness of the research data and findings as per Morse et al.[191,p.14] "without rigor, research is worthless, becomes fiction, and loses its utility". Following the seminal work of Guba and Lincoln, four criterion are used for assessing rigor in qualitative research[192,193]: credibility, transferability, dependability, and confirmability. These strategies for ensuring rigor are employed throughout the qualitative research process to establish the accuracy of the data collected, its relevance or applicability to other contexts of study, consistency in data collection, interpretation, and analysis, and the position of the researcher within the context of the findings[191,192]. Debate, however, exists on the rigidity of these criteria to assess the trustworthiness of data, with some scholars arguing that rigor can be incorporated in a number of ways during the course of qualitative research[194,195]. For this study, strategies were taken to maintain rigor related to the aspects of credibility, transferability, and dependability.

First, is credibility, which relates to confidence in the truthfulness of the research data[196,197]. This concept similarly links to that of previously used criteria for assessing rigor – validity, which describes the accuracy of the research process and outcomes[190,197]. The issue in determining the truth value or cogency of qualitative research is made complicated by the reality in which 'truth' is defined (which is most often established under normative rules that must be met for something to become meaningful). From a critical theory perspective, however, generalizable truths cannot be established because what is true or real has been shaped by historical factors into a "virtual reality"[37,198]. In keeping with the ontological principles of this paradigm, credibility was established by ensuring the data analysis was undertaken in a way that included the assumptions of the critical theory paradigm, research framework and methodology, and consistency of findings[199,200]. Second, is transferability, which refers to the extent to which the findings of a study can be applied or transferred to other contexts or settings[196,197]. This does not mean that findings would be generalizable or would establish any generalizable truths about the findings; rather, it means that similar findings might be observed across comparable settings and samples of participants. In order to establish transferability, detailed descriptions of the research assumptions and context were included in the analysis[200]. Third, is dependability, which refers to the consistency of the research findings – such that researchers could follow the same procedures and be able to obtain similar results[196,197]. For this study, dependability was established by maintaining thorough accounts of the research process, including the data collection and analysis procedures, to ensure these followed a logical flow and were clearly documented [200]. The final rigor criteria is confirmability, which refers to the degree of objectivity of the research – i.e., measured taken to ensure that research findings were not subject to bias[196,197]. This criterion was not applied as it is incompatible with the principles of critical theory and poststructuralism[38,40,198]. From this perspective, findings could not be reproducible because reality is subjectively created between the researcher and the participants within the socio-political and historical context of said reality. Moreover, because the aim of critical theory is to critique and transform, researchers take

on dual roles as the of maker and coordinator of data, which requires an established understanding in advance of what changes are likely required[37].

Reflexivity and positionality

An additional component for assessing rigor in qualitative research relates to the researchers' position within their own study. As part of undertaking ethnographic studies, researchers practice reflexivity – meaning, they acknowledge they belong to the world and surroundings in which their research is carried out[171]. Indeed, ethnographic research – particularly, from a critical perspective – cannot be conducted in a vacuum; it requires the researcher be an active participant in listening, hearing, seeing, feeling, and interpreting their research data[37,171]. Engaging reflexively also requires that researchers recognize their own positionality within the world that exists in and around their research and participants, including "attend[ing] to how subjectivity in relation to others informs and is informed by our engagement and representation of others"[174,p.9]. To do so requires that researchers acknowledge how their personal and professional background, experiences, and theoretical views influences how their research is conducted and interpreted[174].

To that end, the researcher has a professional background as a registered nurse in the areas of (1) mental health – in a tertiary mental health setting with individuals experiencing exacerbations of mood and/or psychiatric conditions; (2) harm reduction – in public health and community health settings providing primary healthcare services to persons at-risk for HIV and distributing needles, syringes, pipes and other equipment for injection and inhalation drug use; and (3) sexual health – in a community-based public health sexual health clinic involved in HIV/STI prevention, testing, and follow-up, including intensive case management for persons recently diagnosed with HIV (many of whom were given their diagnosis by this researcher). As an educated, straight, white woman at (statistically) low risk of acquiring HIV, it was important to consider this position within the context of the research; however, as a nurse who had personally witnessed the effects of chemsex on GBMSM living with HIV in their community, this research also provided incredible opportunities for personal and professional reflection. Indeed, having

observed several patients over the years who had become HIV positive and subsequently more involved in chemsex, it felt increasingly challenging to navigate their unique health concerns. In the context of our medical and public health system, it seemed the only viable solution at times was to arrange for referrals to various services that may or may not be of use. That is, they presented and directly asked for help, but in many ways, it felt like there was nothing that could be done to truly assist them in that moment. In short, a lack of understanding about what these patients were facing (the reality of their experiences, their challenges, and their healthcare needs) and what nurses could do to facilitate these needs became the inspiration for this research.

Ethics

In undertaking this study, the researcher had to make provisions for a number of ethical considerations with respect to maintaining individual human rights, protecting the personal well-being of participants, and ensuring that all participants were treated with decency and integrity throughout the course of the study. In Canada, the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* has established policies to ensure the ethical conduct of research involving human subjects, which was used to develop and inform the research[201]. Considering that this study involved a population with multiple vulnerabilities (namely, persons living with HIV and engaging in illicit substance use), multiple safeguards had to be put in place to ensure the safety and protection of participants during and following the interviews. Ethics approval for this research was sought from the University of Ottawa Health Sciences and Science Research Ethics Board and received approval on May 4, 2022, under file number: H-03-22-7914 (Appendix V).

To obtain access to this particular group, recruitment posters were designed with the intention of attracting a specific demographic of individuals who engaged in chemsex, which featured imagery related to chemsex, including a cloud of smoke blown from a mouth and a person dressed in bondage. This poster was entitled “Chemsex/PnP, HIV, and mental health” and provided explicit details regarding the inclusion criteria, so individuals were aware from the outset whether they were potentially eligible or not. Posters were distributed in print and digital form to

community organizations providing services to GBMSM and/or people living with HIV, which were displayed in their public spaces and shared on social media accounts to attract an array of potential participants. To ensure that recruitment remained separate from clinical services GBMSM might access for HIV care, sexual health screening, or general healthcare, no recruitment occurred in such clinics or spaces – including the researcher's place of employment.

Potential participants could contact the writer via e-mail, phone, or text message and via one of these modalities, discussions occurred to (1) reiterate the study inclusion criteria and (2) if eligible based on these criteria, establish the participants preferred date, time, and location (in-person or online) to complete an interview. Individuals who elected to complete an interview online were sent an email containing the research consent form, an electronic link to the questionnaire, and a link to the Microsoft Teams meeting for the arranged date/time. No identifying information during these exchanges was noted by the researcher and all correspondence was deleted from the researcher's email account and/or phone following completion of the interview. Those who completed their interviews in person were given a physical copy of the research consent form and a paper copy of the self-administered questionnaire to complete after the interview, which were added into the SurveyMonkey server by the researcher to maintain a repository of responses.

Prior to initiating the interviews, the research consent form was reviewed with each participants to ensure they were aware of the time and nature of the request for their contribution (i.e., self-administered questionnaire, potential risks and benefits of participation, as well as the conservation of their rights – including confidentiality and anonymity, conservation of information, compensation, and information on who to contact outside of the researcher should they have questions or concerns about the ethical conduct of the research)[201]. Participants were also explicitly advised of the researcher's role as a healthcare provider and reassured that any statement made during the course of the interview would not be shared or used within the context of that clinical role. As a final step in obtaining consent, the researcher confirmed participants' agreement to (1) participate in a self-administered questionnaire, (2) participate in an interview,

and (3) for this interview to be video or audio recorded. Verbal consent was obtained for participants who completed their interviews online and written consent using initials or a pseudonym was obtained for the interview conducted in person. Participants were not asked to provide their name or any other identifying information to participate.

Survey data was compiled in a password protected file on the researcher's password protected computer. Audio and video recordings and Microsoft Word documents of the interview transcripts were kept in a password protected folder on the researcher's password protected computer. Following the completion of the interview, recordings were transferred to a password protected USB key. All paper-based and USB stored survey and interview materials were stored in a locked filing cabinet in the research supervisor's office at the University of Ottawa.

Because participation in the research study required that participants have experience with chemsex or PnP in the preceding 12 months, it was implied that some may be in a period of active substance use (e.g., could be intoxicated or experiencing substance withdrawal). Since there are no established metrics to determine 'level' of intoxication and since points of intoxication may differ depending on the individual, frequency and history of use, and types substance(s) administered, it would be unethical to exclude an individual from participating on the basis of active substance use – so long as they could provide free and informed consent[202]. Moreover, Aldridge and Charles[202, p.193] note that intoxication from substance use "is just one of a number of 'altered states' in which individuals find themselves, that include other common states such as stress and heightened emotions"; it is unlikely to find any research participant who is completely devoid of some form of mental preoccupation (regardless of their self-reported substance use). While informed consent was reviewed and verbally obtained from all participants, there is some mixed evidence suggesting willingness to consent can be affected by intoxication[202]. To that end, it was integral to take steps to extend the consent timeframe (beyond the point of the interview)[202]. Specific measures were taken to ensure each participant was given a copy of the research consent form, were aware they could withdraw from the research at any point, and were provided

with contact information for the University of Ottawa Research Ethics Board for any additional questions or concerns about the study after the interview had concluded[201].

Potential risks of participation

Given the highly sensitive nature of the subject matter within the interviews, including questions regarding physical and mental health and wellness and sexual and substance use practices, participants were informed at the outset of the potential risks of participation. Such risks primarily related to the potential for mental or physical discomfort, stress, or suffering related to disclosure of their personal experiences within these areas. To mitigate these risks, the research consent form included a number of local resources related to substance use, mental health, HIV (including peer-based and legal services) that participants could access if they required additional supports after the interview. While participants were informed of the researcher's background as a healthcare provider, they were advised that in the context of the study, the researcher held a purely academic role and as such, could not provide any direct healthcare advice during the interview. Participants were also informed on measures taken to protect their confidentiality, excluding the disclosure of suicide, self-harm or physical harm to others. Finally, in light of the depth of personal and sensitive information collected as part of the interviews, additional measures were taken to ensure participants' safety and confidentiality. Specifically, immediately after online interviews had concluded, participant data was anonymized, including re-naming audio-video files according to participant number and blurring videos (in their entirety) in which participants faces or surroundings were visible.

Potential benefits of participation

Participants were informed of the research aims and objectives during the informed consent process. As part of this discussion, the potential benefits of participation were highlighted, including participants contributions to an area of research that had previously been underexplored – particularly in the domain of nursing science. In sharing their own personal experiences related

to the research, participants could contribute to enhanced awareness, knowledge and changes in social and healthcare structures related to HIV and chemsex.

Compensation

The Canadian Tri-Council Policy Statement does not encourage or discourage compensation for participation in research, including monetary forms of remuneration, "as long as these are suitable to the circumstances"[201,p.34]. Within the literature, discussions surrounding ethical conduct for research involving people who use drugs has increasingly advocated that modes of compensation match what is provided in studies involving those who do not use drugs[203]. In other words, remuneration should be equitable regardless of an individuals reported risk practices and as such, should be monetary – i.e., cash – where possible[203].

Renumeration was provided to participants for their time in the form of a $25 Mastercard® gift card. To ensure equitable compensation regardless of mode of participation (i.e., in-person or online), a monetary gift card was selected because these could be sent to participants directly via e-mail if they participated online or given in the form of a physical card if they participated in-person. In the absence of being able to send electronic cash transfers, it was also important to ensure the form of renumeration matched as closely as possible to monetary compensation – which, as noted, is widely recognized as an appropriate form of payment for participants' time. As such, it would be inequitable to exclude persons who use drugs from obtaining monetary (or as close to monetary) compensation based solely on their engagement in illicit substances[204,205] . It was, however, important to ensure the amount of renumeration given to people who use drugs would not unduly influence their decision to participate in this research[205]. A previous doctoral study conducted at the University of Ottawa involving a group of women who use drugs was reviewed in which participants were paid $20-25 for their participation[206]; based on this research, a $25 amount was selected for the monetary gift cards to distribute to participants.

Other ethical considerations

In obtaining approval for this research from the University of Ottawa Research Ethics Board, considerable attention had to be paid in designing the study in order to protect participants' rights related to (1) potential reported incidences of HIV non-disclosure and (2) management of the dual roles as both a researcher and a healthcare provider.

First, consideration had to be made with respect to participants' HIV status – both in general and in the context of their reported engagement in sexual and substance use behaviours (in that, in order to participate in the research, individuals were required to be living with HIV, but were not required to be on HIV treatment or in HIV care). In regards to protecting privacy and confidentiality of participants' HIV status, no questions in the interview or on the questionnaire were posed related to HIV disclosure or participants' HIV viral load count (which is a serologic measurement that can be used to determine potential risk of HIV transmission)[207]. Questions of this nature were intentionally omitted as they could have potentially harmed participants if they were to have been asked or recorded as part of the research. In Canada, HIV disclosure is not universally required for persons living with HIV who are engaging in sexual and/or substance use activities – but rather, is based on (1) the type of risk activity and (2) level of viral load[99]. By not collecting the foregoing information, reasonable risk of HIV transmission could not be established, and as such, there was no legal obligation for the researcher to report potential non-disclosure to local public health authorities; this also served to mitigate the potential of research records being subject to legal subpoenas[99,201]. Resources for the HIV & AIDS Legal Clinic of Ontario were provided in the consent form to all participants in the event they had questions or concerns around their responsibility for disclosure or other aspects related to HIV and the law (see Appendix III).

Second, measures had to be put in place to safeguard participants rights to access safe and comprehensive healthcare services within the clinical setting where the researcher was employed. As part of obtaining informed consent, participants were advised of the researcher's clinical role (i.e., context, employment, setting) and were advised that any statement made in or

outside of the interview would not be reported to the researchers' employer or applied to their clinical files – in other words, the research and clinical components remained completely separate. Participants were also advised that if they were to seek services at this clinic in the future, the researcher would attempt to the best of their ability to ensure an alternate healthcare provider completed this visit (in lieu of the researcher) without disclosing the fact they had previously participated in research. In instances where participants' health files were randomly selected or assigned to the researcher, participants were advised of the right to decline care from this researcher. Finally, to ensure transparency for participants who may have accessed this clinic for healthcare services, no recruitment was conducted in the clinic where the researcher was employed to avoid undue pressure to participate.

Summary

This research study was carried out using a critical ethnographic methodology. Unlike traditional ethnographies, this research did not involve data collection approaches, such as artefact review or participant observations – and rather, used interviews as the primary source of data. Notwithstanding the approach, the components of the ethnographic interview were incorporated into every facet of the data collection process. In keeping with an emphasis on interpreting culture, thematic analysis was used to interpret the intricacies of participants lived experiences to reveal new knowledge about the realities of this GBMSM living with HIV who engage in chemsex, with the researcher engaging in continual reflection regarding their position within the research. The rights of participants remained in the forefront throughout the course of the research design, data collection, and analysis, with considerable attention put in place to ensure the core tenants of ethical research were maintained and to ensure the trustworthiness of the research data. An interpretation of the research results follows in chapter five.

CHAPTER FIVE: RESULTS

"Expression is not the expression of something; it is the way in which something is expressed. Expression is not a mirror in which something is reflected, it is a medium through which something is made to appear."

— **Gilles Deleuze**

Chapter five provides an overview of the research participants (based on the self-administered research questionnaire) and a detailed analysis of qualitative ethnographic interviews. Survey question results were analyzed using descriptive statistics, reporting on frequencies, averages, and percentages to provide a general introduction to the study participants within the context of the research questions. A complete record of the self-administered questionnaire results can be found in Appendix VI. As described in chapter four, qualitative data from participant interviews was analyzed thematically and separated into major themes and sub-themes with a specific focus on the subcultural aspects of HIV positive GBMSM who engage in chemsex and the effect of these group norms on their overall health and risk-taking behaviours.

Self-administered Questionnaire

Eleven of the 14 total participants completed the self-administered questionnaire for an overall response rate of 79%. These participants were an average age of 44 years old (range: 28 - 67 years old) and had been living with HIV for an average of 13 years (range: 2 - 29 years). All eleven participants identified as cis-gendered males, and the majority (91%) reported their sexual orientation as gay. For ethnicity, 45% (n=5) identified as Black and 36% (n=4) identified as white. For education, most participants (64% or n=7) reported completing post-secondary education (college or undergraduate), while 27% (n=3) reported having a high school diploma. For income, over one-third of participants (n=4) indicated they lived beneath the Canadian poverty line[208], earning less than $25,000 per year; another 20% (n=2) indicated they earned less than $50,000 per year. Only three participants indicated their annual income to be above $50,000.

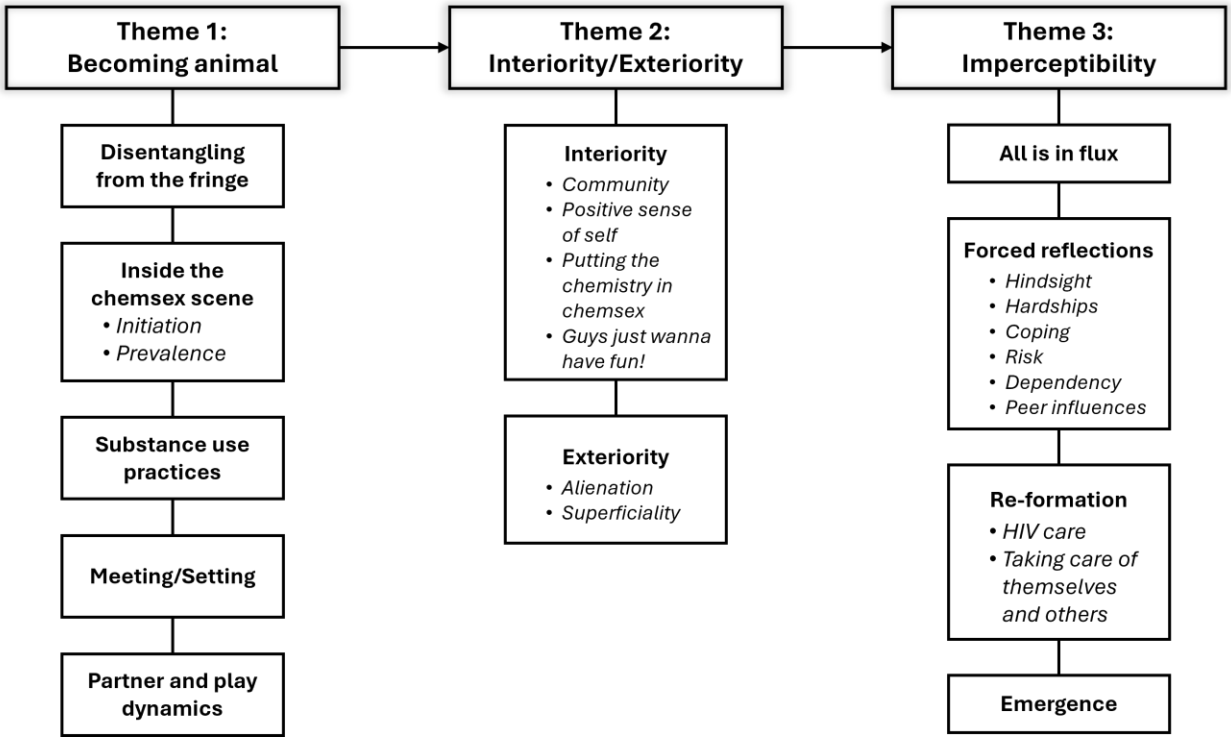
Two-thirds of participants reported their average chemsex sessions lasted for 1 to 3 days; the remaining one-third reported these sessions as being longer than one week or ongoing. Over 70% of participants (n=8/11) indicated they often sought out sexual encounters where they knew chems would be involved; another 18% indicated this statement only "sometimes" applied to them. The preferred substances used during chemsex sessions were as follows: 81% (n=9) used crystal meth, 64% (n=7) used GHB, 55% (n=6) used cocaine, MDMA, and/or Ketamine, and 45% (n=5) used crack cocaine. All reported mixing combinations of crystal meth and other stimulants or opiates. Among those who reported using crystal meth, 44% reported their primary mode of administration via inhalation (or smoking), while 33% reported their primary mode of administration as injection. Nearly three-quarters (n=8) of participants also reported using medications for erectile dysfunction in combination with other drugs during chemsex sessions.

Regarding physical and mental health, nearly three-quarters (n=8) of participants reported being currently engaged in HIV treatment and care with follow-up with healthcare providers every 3-12 months (as recommended by their provider). This level of engagement in HIV care was noted to be lower than the national average[81]. Of those who were currently using HIV treatment, 73% reported using a daily oral formulation with 84% (average) medication engagement in the preceding 30 days (range 40-100% use). Just over half of these participants (n=6) reported their current mental health status as "excellent or good" while the other half reported this as "average, fair, or poor". In the seven days following a chemsex session, self-reported mental health status changed to "average, fair, or poor" for 90% (n=10) of participants. Most participants (81%) reported having one or more mental health conditions diagnosed by a healthcare provider, with post-traumatic stress disorder, depression, and anxiety being the most commonly reported. Among those with diagnosed mental health conditions, 44% (n=4/9) reported they were currently engaged in treatment in the form of prescription medications, while 55% (n=5/9) reported self-medicating with non-prescribed depressants (e.g., marijuana or opiates), stimulants (e.g., benzodiazepines or amphetamines), or a mixture of these drug classes.

Interviews

Following thematic analysis of the interview data, findings were categorized into the three major themes of: (1) *Becoming-animal*; (2) *Interiority/Exteriority*; and (3) *Imperceptibility*. Figure 5.1 (below) serves as a visual reference of the themes and coinciding subthemes in this analysis.

Figure 5.1: Themes and Sub-themes



Theme One: Becoming-animal

The first theme, *Becoming-animal* explores the foray of GBMSM into the chemsex underworld. It describes breaking free from fixed social identities to be able to experience the world in more fluid and embodied ways within chemsex subcultures – i.e., their "formation of [an] alliance with fringe or secret groups at the edge of centralizing institutions"[209,p.20]. Specifically, *Becoming-animal*, in the Deleuzo-Guattarian sense, is used to describe men who, secondary to rejection, personal traumas, social isolation, and mental health experiences, existed within the fringes of society. To

change their subjectivity and escape their lived realities, these individuals become enwrapped in the chemsex scene, which were spaces with their own unique set of dynamics, values, and rules. Within this theme, participants described how their own life circumstances led them to chemsex, their motivations for use, their substance use practices, and how these sessions typically operated (including the settings and interactions with others).

Disentangling from the fringe

Overwhelmingly, participants described their lives before chemsex as being on the periphery of society due to their HIV status. For many of these individuals, this sense of separation related to feelings of inadequacy compared to their HIV negative peers – or phrased more aptly by participant 2, feeling like "I'm scarlet lettered… like if I never would have had this happen, I could have been normal like everybody else". For some participants, this feeling of social separation related to their experiences living with HIV for an extended period of time. For others, this feeling related to unresolved traumas surrounding their HIV diagnosis, including wrestling with feelings of guilt or shame over the behaviours that led to their diagnosis, which made them feel further removed from themselves and from others. On this, participants shared the following:

> I was diagnosed when it was really a virus… after dealing with people saying how disgusted they were, it literally made me think there was poison being coursed through my body… it still pops into my head like that. – P8

> I was always very sure about fluids and wearing condoms… I didn't take any chances until one night when I lost all of my inhibitions, and I contracted HIV. After that, I kinda gave up… I gave up. – P4

> With HIV, it was a nightmare in every case because I had just been prescribed PrEP because I was negative… I was *this* close, and I chose to be like 'I'll be fine. I've been fine all the other times before' and that just led me to feeling like shit about myself in every way… things all went downhill from there. – P2

> When I tested positive, I was given three years to live. I knew I wouldn't live long enough to graduate, so I'd be going to raves. If somebody popped two MDMA, I'd pop five *and* I'd do ten speed on top of that because what was the worst that was going to happen? That I would overdose and die? I was going to die anyways. – P14

As expressed in these statements, participants appeared to be wrestling with complex emotions regarding their initial diagnosis, including feeling “bad” or “like shit”, that their body was “poison”, and even contemplating their own mortality. These unsettled emotions regarding their exposure to HIV also extended to other aspects of their life, whereby participants described in direct (and indirect) ways “[giving up]” on forming relationships with others – and “[giving] up” on themselves.

Related to living with HIV, some participants spoke of their struggles with aspects related to long-term HIV coping. While many of these individuals attempted to participate in social activities, they described feeling unaccepted by their peers and communities simply because they were living with HIV. Specifically, participants discussed the emotional distress they felt after being rejected by sexual partners, friends, or acquaintances based on their serostatus. As the participants highlighted, these experiences led them to avoid forming romantic or personal attachments because they feared the possibility of being stigmatized for *who they were*:

> I don’t blame someone for not wanting to have any possible risk. That’s their choice. But at the same time, to get attached to them thinking they could [become a romantic partner] … It’s harder on me than just saying ‘No... Not gonna happen.’ – P14

> It really weighs on you when you get rejected solely based on HIV. I already have my self-esteem issues, so now its this layer added to that. – P11

> I don’t like rejection. I fear rejection almost. I find it holds me back – like the fear of hearing that ‘No’ would stop me from going out. – P1

In addition to coping with the effects of actual and internalized HIV stigma, participants described layered aspects related to their mental health, which prior to their engagement in chemsex, led them to become socially and emotionally isolated. Some participants described how their personal insecurities negatively affected both their mood and motivation to connect with other people. For other participants, issues with mental health appeared to be triggered by specific events in their lives that were difficult to cope with, such as for participant 12 who described how their mental health struggles “started after I lost my mom, and then my kids became alienated from me, and then I went off from work… it was so much all at once”. Additional sentiments regarding mental health status and feelings of social isolation were described by participants as follows:

> I've always had an issue with meeting people – like a social anxiety thing. I was bullied a lot, and I think it's all because of that… I find it very draining. I don't have any desire to do that. – P1

> We don't go out these days… we don't even leave the house other than maybe to go to the shelter for lunch. – P10

> I had my challenges with my body image and my confidence and HIV and my mental health… I'm also a newcomer, so it was a lot of stuff I had to settle down… and I just wanted to be able to blend into these white spaces. – P11

> I'm lonely. It's been lonely. I identify as someone with unwanted same-sex attraction… so I don't feel like I was 'born this way'. It takes a lot for me to let her sing. I feel like a prude. I feel like a sore thumb. And I have to make myself that round peg in a square hole. You have to cut the edges off to fit me… it's just too much. It's too much. – P4

Combined, the shared – and often overlapping experiences – of receiving and managing an HIV diagnosis, related to said diagnosis, personal insecurities, life stressors, and general low mood became a primary motivator for participants to change their life circumstances. They felt a yearning to belong to something more (or at least, something different) than themselves in an isolated bubble. And so, they looked for a temporary escape to a space where none of their perceived problems would follow them: where something like a chronic illness did not define their value, where they could turn off the self-deprecating noises in their heads, where their physical appearance or sexual preferences were no longer relevant. In entered, the world of chemsex.

Participants spoke of their desire for escape in different ways. Some, like participant 12, "never got into [chemsex] to solve a problem… it was more just to enhance sex". Participant 8 also described a more gradual entry into the chemsex scene, stating:

> I think I was 13 when I smoked my first joint and I never looked back. I'll try anything once. I guess I wasn't taught the right coping mechanisms to deal with a lot of stress. And once I found the escape of narcotics, I was on board.

For most other participants, however, their venture into chemsex seemed to relate to a desire to break loose from the ties that bound them to their present existence, including their feelings regarding their initial HIV diagnosis, living with HIV, and their mental health. For example:

> At the first circuit party I went to, I had ecstasy, and it just took me away from all of my problems and all of my headaches. It was my time to escape reality. It was my heaven. It was my baby. – P7

> For me, it had a lot to do with my mental health. When I party and play, I don't usually feel down because I'm having fun… I'm kept away from stuff like depression and anxiety. I overcome all of those and it makes sense to me. – P5
>
> I missed having a social life and people to talk to. At home, it was just me and my mom, and it would just become overwhelming because my grandma died and my mom's just at home crying and I can't help her cause, how do you help her? That stress would become too much, and I just needed a kind of release of something to do and people to talk to. – P2
>
> I'm very critical about everything, like, I overthink stuff: confidence stuff and self-esteem stuff, and mental health stuff. So, I was looking for something to make it easier… to just go with the flow. – P11

Regardless of the unique circumstances that surrounded their journey into chemsex, the underlying sentiment from each of these participants expressed a common desire for escape. This sense could be felt through their expression of wanting to be "kept away" from or help "ease" their negative emotions or problems and the need for a "release" from feeling isolated from others. It appears these participants had a shared *animal* (bond) – even before they had assembled into their own subculture; as in, they were intrinsically connected by their experiences and by their shared desire for an "escape". Thus, while they may have felt their experiences set them apart from others, they were formed of the same syntax; they were created in and of themselves and soon to be take up and re-made as something of their own – their subculture.

Inside the chemsex scene

Initiation. While the impetus to escape became a primary motivator for change in their lives, most participants had not initially sought out chems as the specific means to achieve this goal. Though some had used drugs, like participant 7 "started in the rave scene in my early 20s and just never stopped… its just part of my routine", or participant 10 who started "at the circuit parties 25 years ago where everybody was taking MDMA and you'd pick someone up and go home flying", chemsex appeared to represent something different – something bigger. Indeed, in many cases, participants had no prior knowledge of what chemsex or 'partying' in that sense really meant; their introduction into chemsex occurred spontaneously through acquaintances:

> I was at a bathhouse, and somebody asked if I partied. Back then, partying for me meant having a joint or a couple of drinks, so I said 'Yeah'. Next thing I know, I'm in this room and we're smoking the pipe, and it was fun... it was a really good night. Things just sort of started up from there. – P12

> Although I felt like I was always very set against drugs… there was always this curiosity to it. I had broken up with a partner and one night, found myself at the club partying and there were drinks and music. Someone asked me if I partied, and I didn't really understand. So they explained it to me and that's the night I was part of it… something inside me completely switched… that curiosity killed the cat. – P4

> Somebody I invited over that was new asked 'Have you ever tried this?' And I hadn't because back then, I had mainly used ecstasy and cocaine. It was the first time that I had ever used [drugs] in a sexual context, especially meth. – P14

For others, this spontaneous introduction to chemsex was facilitated by people they knew, such as their romantic or sexual partner or friend group. In these instances, participants did not express any undue pressure to participate – rather, they appeared to have been intrigued by the potential for excitement and for the hope of something new or different. For example, participants stated:

> I got motivated by a group of friends. I watched my friends change and I thought maybe I needed to join them. – P5

> I met somebody who was addicted, so that kind of got me using. And of course, the relationship was sexual anyhow, so it just came hand-in-hand… If I was gonna hang out with him, chances were, we were gonna be partying. – P9

> Someone I was dating was doing it. I tried it with them, and that's how it went. – P13

> My fiancée at the time became absent from the relationship a lot, so I queried him on it and found out that he had started doing meth. And then I kind of jumped on the bandwagon, like if you're doing it, I'm gonna do it too. So, I tried it out, enjoyed it, enjoyed sex with my partner on it… and kinda chased that for a long time. – P1

Following their initial experimentation with chems, participants elaborated on their motivations for continued use – as in, what aspects from that first experience with having sex on drugs led them to want to have those experiences again. On this, participants shared the following:

> [The drugs] took me to a whole new world… I just enjoyed being high and just having that whole euphoriated feeling… its just a nice, wonderful feeling. – P7

> I became involved in drugs which I used as a kind of pleasure to pass the time… PnP actually inspired me to do certain activities that I wasn't quite comfortable doing... or thought were embarrassing before. – P6

> Sometimes if I don't take drugs before I PnP, I feel embarrassed… but when I take those drugs, I definitely get a relief. I'm able to do things the way that I like. – P5
>
> [Chemsex] would make a very boring, lonely life more exciting. – P2
>
> It sits in your brain where if you're high, you wanna be with people. And if you're being with people, you wanna have fun. – P9

Within these statements, factors surrounding ongoing engagement in chemsex appeared to relate to aspects of "excitement", "fun", and "pleasure". Notably, it also appeared to help some participants feel more "comfortable" when it came to sexual activity – in that chemsex facilitated some men to be able to shed some of their insecurities ("embarrassment") and have sex "the way they liked". Considering some of the layered barriers they described related to engagement in social and/or sexual activities outside of these spaces, the fact that chemsex could open up a "whole new world" was a positive motivating factor for their continued involvement in this scene.

Prevalence. When asked to estimate chemsex prevalence within their communities, participants reported this practice may have been more common than was estimated in empiric data. For example, participant 4 more directly shared a more personal perspective regarding how, "The gay community is infested with chemsex", suggesting a strong emotional response to the perceived rise in chemsex. Other participants echoed variations of this sentiment, stating:

> In the gay community, PnP is very prevalent. Even if I didn't bring it up, 75% of the time, PnP is happening… For instance, I can log into Grindr in any city… looking for any drugs and can find them within an hour. – P1
>
> It's just so prevalent now… sort of the 'in thing' that's happening… Compared to cocaine, crystal meth is also way, way cheaper and readily available. – P3
>
> It's so hard to find someone who isn't partying, especially online. People will say they're not and I'll meet them with the intention of not partying, and I walk in and it's sitting on the table. – P14

Participant 12 also noted, "You're going to have a hell of a time finding people that don't do drugs that are HIV positive", suggesting that the anecdotally high prevalence of chemsex within some GBMSM communities might also extend to segments of GBMSM who were living with HIV. This in itself appeared to be a positive motivating factor in that chemsex spaces were a sort of blank

canvas for these men to engage with others without being labelled as an HIV positive person – because the assumption in said spaces was that most positive guys were also into chemsex.

Substance use practices. To understand the inner workings of chemsex subcultures, participants were asked to share some insights into the substance use practices that commonly occurred within these spaces, including their preferred substances. As was noted in the literature and reinforced in the results from the self-administered questionnaire, the primary drug of choice in chemsex session for most participants was crystal meth. Indeed, for many, the use of drugs during sex appeared to produce a more "euphoriated" feeling compared to the use of other substances. Related to their preferred substances in chemsex, participants stated the following:

> I mostly use Tina or sometimes GHB, but not that much. Its mostly meth. I used to drink alcohol an awful lot before, and I found with alcohol, my mind wasn't there a lot of times. With drugs though, I just find that whole euphoria, that whole central nine yards of it all is so wonderful. – P7

Additionally, participant 11 described using crystal meth primarily due to its mainstream popularity (and acceptability) within chemsex spaces. On this, they stated the following:

> The most prominent [drug] used is crystal meth. Like within the community, that is the main thing everybody is using.

Participant 12 echoed the community norms around crystal meth use for chemsex, stating:

> It's never alcohol. It's usually chemicals… mostly, crystal meth. Although, if I could find MDMA, I would use if on its own because it gives me the same reaction, actually, a better feeling.

Notably, a subset of participants reported they preferred using crack cocaine over crystal meth for their sexual encounters because it gave a different high. For example, participants shared:

> I have a huge history of multiple drugs… I did meth twice, maybe three times? Then generally, it was cocaine, and then cocaine turned into crack… right now, its solely crack cocaine. – P9

> I've tried Tina and you can taste that there's some chemical in there, but I've never gotten high like the rest of these people… it just doesn't serve the purpose I'm looking for... Crack just does something for me… that's my drug and I enjoy it. A lot. – P8

Participant 8 also noted that considering the group norms that existed around use of crystal meth within chemsex spaces, the use of alternative substances, such as crack cocaine could sometimes yield some polarizing responses from their partners. They elaborated on this, stating:

> There's a stigma I that comes with smoking crack. Not to say that any other drug is better than another, but I've just seen the expression on people's faces that it's not their scene. But its like, you're sucking on a glass tube just like me. The stuff you're putting in might be different… but you're doing the exact same thing. There's definitely a hierarchy.

In terms of modes of administration (e.g., injection, inhalation, oral, snorting), most seemed to opt for inhalation drug use, depending on their preferred drug of choice or the particular setting. Some, like participant 11, "don't want to inject". While others, like participant 12, preferred the high they experienced from injecting drugs, but often avoided it for personal and safety reasons, stating:

> I don't particularly like smoking. You have to keep smoking usually for a longer period of time. I've tried [slamming]... it was a nice rush that lasted a good 5 hours… but I can't self admin, so I'm not going to ask somebody to stick a needle in my arm.

Specific to crystal meth use, participant 3 provided some insights in terms of the effect that different modes of administration had on their mood and their interactions with others:

> If you're smoking, the high is just step, step, step, and if you do it any other way, like booty bumps – it's gonna be immediate. Slam is immediate. It depends on exactly how I'm using it, which affects how high I get.
>
> If I'm just at home or working, I will tend to smoke it… it tends to be more a social type thing… like having wine with dinner. If it is a situation where I want to be sexualized or something like that, then I need to inject it to get that sexual type of desired effect … slamming is like I'm in Vegas – I'm taking it and partying all night.

The ability of different chemicals to produce specific desired effects to suit the situation and their mood allowed for some flexibility in terms of how they might feel (or perhaps intended to feel) during their chemsex sessions. Regardless of how their partners chose to administer their substances, participants had a general sense, based on their prior experiences, of how certain substances taken certain ways might affect them in each situation so they could "enjoy it".

In terms of patterns of use, participants described varying degrees of engagement with substances and with their chemsex practices. Some reported more intermittent engagement:

> I have been known not to do it for 7 or 8 months and then maybe in a month, do it once a week. But majority of times, probably once or twice in a month. – P13

> Some months, I would do it once. Some months, it would be like every weekend. And then during times like Pride month, it was definitely crazier. – P11

> I'll only grab stuff once a month and when its gone, even if I had money left, that's it until next week or whatever. – P12

Others described more frequent patterns to their chem use in a given week or month, stating:

> I'm using maybe 3-4 times per week. It's always during PnP sessions – not during the days. It's always at night. – P6

> I mostly use 4 or 5 days in a week. I always do my PnP towards the night. I enjoy that for about 4-6 hours anytime I'll do the play. – P5

> I would say [I'm using] 25-26 times per month… about that high area there. – P7

For others still, their engagement in chemsex appeared to be closely tied to issues of obtaining and financing the substances for chemsex. While they potentially may have been interested in using more often than this, their ability to afford their drugs depended on external factors, such as their current income at the timing of their next scheduled payday. For example, they shared:

> Currently, [my partner and I] use 2-3 times per week all weekend up until the next payday… He would use daily if we could afford it. – P10

> I try to time [my parties] for how much dope I picked up that night on how long that's going to go on for. I'm not rushing with it… cause once it's really gone, and I start coming down… it's not the same thing anymore. – P8

> I use whenever I have time and [the opportunity] presents itself… I've got an arrangement with somebody who works for me, and part of his job is to make sure that we always have it, and he can get it on a monthly credit facility from the dealers… I've never had a day where I didn't have it or ran out… your access and your socio-economic levels matter… – P3

Based on these statements, engagement in chemsex appeared to be largely dependent on individual mood, timing of certain parties or events, such as "nighttime" or "Pride month" where things might "get crazier" or based on how much money they might have had at the time to pay for the substances they desired or required to engage in chemsex. While not all participants discussed finances as a barrier to their participation in chemsex, it appeared that for some, this may have limited how often or how fully they could participate in the activities they enjoyed.

Meeting and setting. Once participants had secured their preferred substances, they would set out to meet others to consume said substances and engage in their various activities. The dynamics of meeting prospective partners differed between participants. Some described using geographical-based applications (or more colloquially, 'hook up apps') or internet-based sex rooms or frequenting bars or clubs to meet partners, while some preferred total anonymity provided in spaces like bathhouses or saunas. For example, participants stated the following:

> Things mostly started in the bathhouse… being anonymous, sometimes with the lights off and just see how it goes. – P11

> The bathhouse is usually where I like play with other guys, but I wait until I'm invited. I don't invite myself to some of these places. I don't impose on people. – P12

> Most times when I take chems for sex is when I'm out in the club… when I'm in between a mix of different people and feel that person is with me. – P6

> Usually, I'll meet people online… we'll exchange info and talk on there for a bit. Sometimes, I'll do a Zoom thing, but you can't get the same connection on camera… its mostly being a voyeur. – P13

In most other instances, however, participants described how their chemsex networks were established through acquaintances or connections to other established networks – i.e., through 'friends of friends' or through word of mouth. Related to meeting partners, participants stated:

> In most cases, you meet people through people you party with… someone will bring someone along with them and introduce you and that will develop into something that you do without that person being involved. – P9

> Most times, its people that I already know… the fact that I live [centrally], it helps me meet people, so I hardly go on the apps. Its mostly word of mouth… somebody might come with another friend and so forth. – P3

> [I meet people] through friends of friends. Usually somebody will say, 'Hey, I know this guy who's pretty cool' and he'll introduce me to the person. And then that person usually phases out the person that gave us the introduction… and then I would end up partying with them. – P8

In addition to the dynamics of meeting partners, these men also had to negotiate the location where chemsex sessions would occur. Unlike the flexibility in how participants described meeting their partners, most seemed deeply rooted in their preference to engage in chemsex in private or secluded venues, such as their own or somebody else's homes. For example, participants stated:

> Usually, I'd meet people online or someone would have people over… it was never anything that I would do publicly. – P2
>
> I would rather meet in my own home… I don't feel safe [anywhere else] because I don't know what seeps under the door… or in a bar or bathhouse where you could get raided. – P9
>
> For me, its more convenient to do it at my place. I also like to be a little bit more in control of the people I'm having in the house, whereas if I'm going somewhere else, I don't have really control over who's there. – P7
>
> If I have the resources, I prefer to get a hotel room… preferably one of those suites with the apartments because I feel like I can relax and not be taking care of everything… it makes everybody feel like it's a neutral ground. – P3
>
> I don't tend to do it in public. It would probably be at my place or someone else's… with the private venue it's my business… whereas at a bathhouse and you're using, then everybody knows your business. – P14

While some participants also described their preference to attend bathhouses for the purposes of chemsex, it was notable that most others preferred to host or attend parties in private or secluded venues. As described above, these settings provided a "neutral ground", where participants could feel more "in control" of what was happening around them and safer and more relaxed in the context of potential unknown variables that might occur during these sessions (e.g., smell of drugs, smoke clouds, potential for arrest, or people "know[ing] their business"). Considering that for many of these men, their primary motivation was to "make life more exciting" and experience "pleasure" and "euphoria", having a safe place to do this was paramount to their enjoyment.

Partner and party dynamics. While some participants described a tight-knit group of friends with whom they would typically have sex with, many others also described acts of meeting anonymous partners online for the purposes of casual sex ('hook-ups') or to share substances with. A critical component to negotiating these hook-ups was to establish whether potential partners were also using chems without outwardly disclosing too much information about their own practices. To maintain their safety and privacy, participants developed a series of internal measures to gauge if their partners might also engage in substance use (without directly asking them). These different indicators or 'tells' were described by participants as follows:

> People would have it in their [screen] names… either 'T' or 'PnP' or 'party'. The little party emoji. Or the capital 'T' in any word… If I wasn't sure, I'd be like 'Are you up late or are you up early?' because that would be a way of saying it without saying it. – P2

> If you give me a bunch of guys on Grindr, I'm going through them and I'll pick the ones that look more like meth heads or who I feel would be more likely to do drugs. – P1

> You can tell by some of their online profiles because there's usually a question about drugs. Or it depends on what site they're on… there's little indicators in their profile… maybe a capital 'T' in one of the words or they'll ask, 'Do you party?'. – P12

For participant 3, these indicators were easier to assess when meeting partners in person (as opposed to online) because they could interpret people's actions and body language:

> When you meet somebody, you try to feel them out to see what they might think about it. It might be something like the clinking sound of a pipe in their pocket… or you see one of those heavy torches… or they go to the bathroom, and you hear that clicking sound [of a lighter] but don't smell cigarettes… that will automatically tell you.

For many of the participants, these subtle cues helped establish an implicit sense of trust between their partners. By assessing others' substance use – or more specifically, selecting partners they "fel[t] would be more likely to do drugs", they felt less vulnerable to the possibility of facing rejection or stigma related to their penchant for sexualized drug use. In keeping with some the sentiments previously raised regarding chemsex settings, establishing partners' preferences for substance use also provided a sense of control over the pending interaction.

In addition to these assessments of potential partners, chemsex spaces also had some implicit expectations for all group participants, which helped to establish mutual trust. Most specifically, participants valued privacy and confidentiality for themselves and others in these spaces – and it was implied that their partners also respect the same boundaries. For example:

> There's a whole aura around your involvement on that. So, if you talk about these things, it's when you're actually talking to that person… like you actually hooked up with the person. As opposed to putting it on your profile. – P9

> We don't really discuss or talk about anything *outside* – like our lives as to what we might do. So, you could be doing it with somebody who's a government MP… but you don't know. You don't care, really… you just know when you're meeting them, and you just meet. – P3

> I don't discuss my partying with a lot of people, other than people who party with me. It's not like I go out there and everybody knows that I do – and I would prefer people not to say so either. – P13

While participants described their preference for confidentiality in these spaces, they also noted how important it was to communicate their sexual, substance, or personal boundaries to partners. In most instances, this conversation was more easily facilitated with partners they had knew or had established relationships with. Related to aspects of communication, participants described:

> Its more likely to be on a second or third encounter. You meet someone, you have sex, then you meet them again… and you'd probably broach the topic. – P10

> When you're in a bathhouse or a big party environment, nobody likes discussing anything. You're just in there like, 'Whatever happens, happens'. When you turn to more private kind of parties… it's smaller, so you can more easily discuss people's preferences and their boundaries. – P11

For participant 7, who hosted the most of chemsex parties they attended, communication about boundaries happened the moment people arrived to ensure they were all on the same page:

> I try to let people know at the very beginning that they came come in, have a good time, stay as long as they want, leave whenever they want… but just to be respectful to me, my neighbours, and my place.

Building on these established rules, participants also had their own set of expectations for how chemsex sessions *ought* to operate to fulfill their own pleasures. One central component expressed by participants was around the preference for their partners to also be using drugs – particularly if sexual contact were to occur. For some, this was almost a necessity, as it provided a sense of ease over what might occur during said interaction. Participant 1, for example, stated:

> I know there's gonna be less animosity on their part because if they're high on drugs as well, it's an easier transition from, 'Hey, we just met' to, 'Let's fuck'… it's *way* less awkward. I can just have a couple of hoots, pass the pipe along, and as he's smoking, I can start taking off my clothes.

Similar sentiments were echoed by other participant in terms of the comfort of having potential sexual partners also being using drugs during their contacts. On this, participants stated:

> It's easier for me to feel comfortable a lot faster if they're high with me. I'm always thinking when they're not that they're either judging what I'm doing or what I'm thinking or saying. If we're both high, they don't even have to be thinking or acting the same way as I am… I'm just more relaxed knowing that they're high. – P8

> You can't have someone there who isn't interested in the whole spectrum of what you are into… it would just be uncomfortable. It would be awkward… [like] sitting around at a party with someone who doesn't drink and everyone's getting drunk. It's just kind of weird… you feel bad. You feel guilty. It takes away from your enjoyment, so it's the exact same thing with chemicals. – P9

For these participants, having the expectation of partners being "high with [them]" made their encounters feel less "awkward" and allowed them to be able to "relax" and be more present in the shared chemistry between them and their partners. More specifically, this dynamic helped to quiet potential concerns that they may have experienced in the past or may have experienced outside of chemsex spaces over partners judging their actions or behaviours; it allowed them to feel free.

Other participants discussed substance use by their sexual partners as more of a preference than a finite rule for their encounters – while providing some elaboration on the factors that made this dynamic enjoyable for them. For example, participant 13 explained:

> Usually, I will ask before they come over, so I know if they've been partying, then I will do some before they get here, so I'm *sort of* at the same level. More often, it's when the person's here, cause then we both go flying together… [I prefer that] cause you're both going at the same speed… same length the whole way… Some people will just sit around with each other and smoke, and they'll count that as partying… that's not me. There has to be sex involved or I'm just not doing it.

Related to being "at the same level" as their partners, other participants also described:

> I try to find people who use drugs to enhance what's there, but not use it as a must… [I like] to find partners who start when I start because then I know what level they're at. When you're doing it together in that part, you can go on that trip together. – P14

> I wouldn't have asked somebody to use it if they didn't want to or they're not, but it's going to be more enjoyable if we're both having that buzz, you know, understanding each other. – P11

> I prefer they also be high so we're both in the same place. You have fewer inhibitions and so there are fewer restrictions… more things go and are acceptable. – P9

In addition to the dynamics with partners, participants also had to consider the general ambience of chemsex sessions, which helped to establish the mood, tone, and flow of their interactions. Referred to more colloquially by participant 3 as the party "vibe", these conditions set the stage in terms of what made a session feel successful (i.e., pleasurable) for each participant. Starting with the elements of more enjoyable sessions, participant 3 explained:

> What really drives it is the people around and the situation itself. I could anticipate that I will get hornier after injecting, but sometimes if the vibe is not really appropriate with the setting, it might not happen. Then other times, it also depends on how potent the substance is. There have been times when its very weak or… super, super strong and it affects all that too.

Other participants echoed similar sentiments regarding optimal conditions of a party stating:

> If I'm going over to somebody's house that has somebody else there, I like to know who it is. It may be somebody I don't connect with… [or] I don't even speak to. By coming into that situation, you're taking away from what they already have or have started. So, you can bring them down and that's not a good idea either. – P13

> There's a whole world of people who are in that zone… I think with a partner it would be different, but with strangers or people watching or 4-5 guys in a room and something blaring on a screen, there's no way I would be comfortable doing that. [But with chems], I can join into the room without feeling that same insecurity. – P4

Participant 7 described a more impromptu approach to how their sessions operated:

> It's usually an all-nighter… all depends on when people decide to come over… and each individual person. I don't really have set times for people. I let people be who they wanna be. They come in when they want and when they want to leave, they can leave. As long as there's no problems, then that's perfectly fine.

Despite their best intentions to create the ideal atmosphere, there were situations where chemsex sessions did not operate in the way participants had hoped. In many cases, this related to a clash between the "level" their partners were on, the "vibe" of that particular interaction, and their own moods, which per participant 13, "[was] not going to work" for them. They elaborated, stating:

> If he's not been partying hardy that day, but had a couple of puffs in the morning, played a little, maybe didn't have any again until the afternoon, then that's different. But if they've been partying from the night before… [it's a] different headspace.

> I need to ask a lot of questions now beforehand, so it kinda cuts right at the beginning, like 'How long have you been partying for? What have you been partying on? Have you been playing a lot?' That kind of thing. If we're not on the same wavelength, it's not going to work for me.

Other participants built on this thought about "looking for the perfect storm", stating:

> [Crystal meth] amplifies the energy. That's why it's very important that you control the environment that you're in cause if some other energy is brought in that you may not be really able to control, it could lead you to a problem in most times. – P3

> What I've come to learn is… that usually, if they've been partying for too long, they get kinda sketchy. You know, they're always doing something or can't focus… always

> looking behind me… If I meet somebody that turns out they're not at all what they said they were or it's a bad vibe, I wanna get out of there. – P12

> It's definitely looking for the perfect storm. Sometimes, I have two of the aspects all going well and then the person starts getting too jonesy on me and that just wrecks it… the game's over… [Also,] when you bring out something different [like crack] that they haven't tried… and now you're throwing in drugs you've never used before… its not as smooth as a thing… It's a hit and miss a lot of times with guys I pick up. – P8

Still, for other participants, the clash in their dynamic with partners related more to their own mood, which sometimes affected how their interactions played out. For example, participant 4 noted:

> There's time and space between where I'm [using or] not. So, after all the rumination, the thinking about it, it's like 'Let's just get to it', you know? … I kind of seem rude to people, but I'm like, 'No. We could have chosen to have a different kind of evening. We didn't'… it's kind of anxiety, nerves…

> I get hypersensitive. I check people out. I wanna know your moods. I want to know the mood of the room. And I can see right on people's faces something when certain things are said that the attitude's changed.

Participants 9 and 6 also spoke about the potential for dynamics to shift based on their mood or headspace in each moment and how this could also impact their interaction with others:

> Generally, if you spend too much time worrying about what could happen, then that ruins everything… I have a hard enough time controlling my own brain when I do stuff without worrying about what I'm doing or having to actually have something else going on. – P9

> Sometimes, it depends on the mood, your feelings, how good you are at the particular time. If you're in a bad mood… it can take you out of some part. – P6

Based on these sentiments, it seemed that chemsex sessions operated based a delicate balance of (1) personal factors, including substances being used, how and how often these were being used, potential vulnerabilities (e.g., confidentiality, assessing if partners were interested in party and play), and their own moods during said interactions; and (2) extraneous factors, including their partners use and their state of mind (or level of high), the setting in which contacts occurred, and the general atmosphere of the dynamics between them and their partners. If participants could obtain the "perfect storm", then these sessions were "wonderful"; if, however they were unable to "control the environment", it appeared to be "game over" for that encounter.

In this theme, participants shed light on their journey towards *Becoming-animal*. More specifically, they articulated how they shed their previous identities as lonely, or isolated, or 'HIV positive' persons who felt unaccepted by their own communities (and by society at large) and transformed into something new. As part of this metamorphosis, participants provided an inside perspective into how the chemsex world operated for them – and with others. As with any *becoming*, this dynamic was never fully realized. Indeed, as participants described, this was constantly evolving based on the settings they were in, the partners they engaged in, and the substances they experimented with. Regardless of if these encounters went the way they had intended, chemsex opened a myriad of possibilities of thinking, of feeling, and of *living*.

Theme Two: Interiority/Exteriority

The second theme, *Interiority/Exteriority* delves further into the group norms and dynamics of the chemsex underworld by examining aspects of community within this group. As highlighted in theme one, there was a certain complexity to chemsex subcultures in terms of the layers and folds within and of these dynamics, that were further exposed herein. More specifically, this theme explores the interconnected dynamics of chemsex subcultures, which were separated into (1) *interiority* – or the factors (forces, influences) that shaped participants' subjectivity within these spaces, including aspects related to community, positive sense of self, and experiences of sexual and personal pleasures; and (2) *exteriority* – or the relations that shaped individuals within these spaces and the spaces themselves, including witnessed or lived events that led participants to feel detached from their communities and the criticisms they held for people around them[210,211].

Much like the complex dynamics of community, the subthemes herewith are not binaries, but rather, were used to explain how *interior* forces (what is inside itself that produces forming or bounded relations) and *exterior* relations (what something does through its connections that produces difference) create and are created by one another in the constant flux of ones lived reality and dynamics with others[210,211]. *Interiority/Exteriority* reflects the fluidity in interpretations of belonging and acceptance within this chemsex subculture with the inward pull of interiority

(aspects of community, positive sense of self, great sex, and fun) and the outward push of exteriority (feelings of alienation and superficiality). In other words, this theme explores the tensions between forces and relations that exist within chemsex subcultures; they are parts of a whole, but one is not complete without the other and one does not complete the other.

Interiority

The first component of this theme explores the *interior* dimensions of chemsex subcultures – the affective and relational forces through which meanings, motivities, and identities were produced. As described by the participants, interior dimensions related to aspects of community (connection, acceptance, assistance), a positive sense of self, sexual pleasure, and personal enjoyment which converged to create the internal structures that surrounded chemsex participation.

Community. To begin, participants largely spoke of the sense of community they felt within their chemsex subculture. It was a place where they felt comfortable, accepted, and able to be themselves in the freest sense. For many participants, chemsex communities represented a place of comfort that they may not have had outside of such spaces. On this, they explained:

> One of the biggest advantages is that it's a no-judgement zone. Once you know that, you're comfortable... If anybody was to tell you why they would be okay with it is because they understand you are all in the gutter together. Its this thing that society frowns upon… but here, in this setting, in this space, nobody is judging you. – P3

> It's just nice to be able to hang out with people like you… I was able to come out and be myself finally in my life. Like, totally out and not have any secrets… It's a sense of community letting people know they're not alone. – P12

> I don't have any family here. My social group as a newcomer was through these… PnP and sex parties… I was fortunate that I was welcomed into this network. – P11

> It feels like a community that helps each other out. Like, if I've got some [drugs] and someone else doesn't, I'm always willing to share to get them through whatever they need because I know how it would be without. I would definitely feel closer to other meth heads. – P1

In addition to the trust and safety of their groups, participants also shared a sense of community in terms of the social connection these provided. As part of engaging in chemsex activities, they

had the opportunity to meet new people and to forge bonds with individuals whom they might not have otherwise encountered. Reflecting on their chemsex experiences, participant 2 shared:

> If there's one thing I'm proud that I can pull from this life, it's meeting a lot of different people who have gone through a lot of different things that really opened my eyes into [their realities] and to how lucky I am.

A similar feeling was shared by participant 12, who stated:

> As strange as it sounds, there have been benefits from doing crystal meth… I went through a lot of situations that were new to me… I walked in a lot of other people's shoes and learned a lot. I actually became genuinely compassionate and empathic.

Other participants spoke about their interpretations of the chemsex community as follows:

> It feels good seeing the same faces every day. I've been into party and play for seven years now… Those people who come around most often, I consider them like my family – enjoying the things that I do and giving full pleasure. – P5

> I like to get to meet… and get to know different people. In that space, you get to understand different people's attitudes… I really find it a pleasure to be able to communicate with different people… I feel another community in me. – P6

For participant 4, who struggled with peer and self-acceptance, chemsex cultures were considered to be the only tangible connection to a sense of community in their lives at the moment:

> I've been out for 20 years and HIV positive for the last 10 years… I've involved myself in the community, but… I don't really feel connected to my sexuality at all, except for the things that I indulge in… the drug use is my last link to the community.

To expand further on the aspects that made these groups feel like a community, participants spoke about the positive feeling of being accepted by like-minded peers. For some, chemsex spaces provided an opportunity to engage socially with people who shared their same interests (most commonly, those who also enjoyed engaging in chem use) – and as a result, were less likely to judge or reject them for their recreational activities. For example, participants shared:

> You see the same people while you're partying… and they become your friends… I feel like I'm in a community whereby I've got people who do things the way that I do, so I feel relieved. – P5

> The friends I have left over now, pretty much know all there is to know. So, if they haven't been frightened off by that, then I don't see them leaving in the future. – P8

> There was a safety with other men that have the same kind of fractured masculinity. You know, 'If your voice is high or your hands flick, it's okay because I do that too'. I knew that group would accept me… and it just made it easier to be seen. – P4

As described above, the shared group values and norms of chemsex spaces allowed participants to feel "seen" and "relieved" knowing they had a group of people in their corner who "accepted" them for who they were. Having this sense of security was also important for participants to feel vulnerable to act and express themselves openly knowing the people around them wouldn't "leave", which had a positive impact on their overall mental health. Related to the comfort and security of chemsex networks, participant 3 elaborated on how chemsex communities provided a feeling of refuge from some of the social discontent they had personally experienced outside of these spaces, specifically related to their engagement in chemsex. On this, participant 3 stated:

> We're the 'forgotten crew'… The drug itself is publicized as the most addictive, the most dangerous, you're going to lose your teeth – all these things. You'd be surprised that even a crackhead looks at someone who uses T in disgust. So, that makes us go into this zone where you feel like you're not judged, or you are in a setting where you can be yourself.

The positive aspects of having a judgement-free "zone" separated from general society also extended to aspects related to participants' HIV status. Specifically, they shared how prior experiences of stigma or rejection were less prevalent in chemsex spaces because this "forgotten crew" appeared to be more accepting and tolerant of one another's differences. For example, participant 3 shared, "there's an unwritten rule or assumption that everybody who parties has the same status as yourself". These sentiments about the implied HIV status of chemsex participants were further elaborated on by participant 2 who shared how liberating these spaces felt when HIV was no longer seen as a defining component of their personal identity. For this participant, chemsex allowed them to feel "normal" for the first time since their diagnosis. On this they shared:

> People in the party scene are more much okay with being undetectable if they don't have [HIV] themselves. I felt like I was on the same playing ground as everybody else. Whereas when people don't do drugs, it seems like I get shunned away or ignored or blocked because so many people still don't know enough about it… it's an ignorance. With people who party and do drugs, it's like they either know about it, or it doesn't bother them, or they have it themselves. It was a community where I felt normal.

Chemsex spaces also provided participants an opportunity to forge personal (and sometimes, emotional) connections with people who shared common interests and experiences. For some, these commonalities specifically related to engagement in chemsex, where their relationships with others were strictly centered around sexual and substance use activities. In these dynamics, participants shared how enjoyed the separation of their 'chemsex lives' from their 'everyday lives' (e.g., work, social, family obligations) and how the individuals they spent time within the former were part of an extended community outside of their archetypal esse. As part of this, participants described how their connections with others were formed and existed inside these spaces:

> The people I hang out with, I met them all through gay sex apps… we hooked up and found a friendship after that… They're a lot like me – they aren't schizophrenic and can have some kind of stability on the drug. Those are the kind of people that I generally befriend more so than others. – P1

> Relationships more revolve around chemsex. I can end up in a relationship, but most of the time, if it goes into friendship, then we don't really have chemsex. – P7

> I try to separate sexual desires from the emotional part of [relationships]. If I'm dating someone, I wouldn't be on that substance. – P11

> I have 3 main people that I know and trust now at this point. I know and like their quirks while we're on it… I just don't have other people in. – P8

For these participants, their connections with others were formed based on chemsex and while some, like participant 11, described "separat[ing]" the physical from the emotional", they nevertheless had created meaningful connections within these spaces. While these relationships may not have met pre-established social norms of personal relationships or friendships, these participants had found likeminded individuals who understood them and who they understood – i.e., who were "a lot like [them]" – which was an important aspect of community for them.

Other participants spoke about the fluidity of their connections with others. For example, participant 14 explained that spending time between two worlds (with and without substance use) provided them the flexibility to forge connections and establish a semblance of community with individuals both inside and outside of their chemsex networks. For this participant, engagement

in chemsex was not an absolute, but there was an implied sense of empowerment in being able to connect with individuals from different circles in different ways. On this, participant 14 stated:

> There're people who stay within this circle and don't go outside. There're people who are dead set against any sort of substance use and they stay in one circle and there's people who are only connecting over drugs and they're in one circle. I kind of found myself in the middle of the two.

Related to the versatility of chemsex spaces, other participants described how engagement in chemsex provided opportunities to develop relationships with partners on a more personal level. In these instances, the confidence derived from chemsex, the excitement of chance meetings online or through friends of friends, and the pleasure of the interaction led to continued interactions outside chemsex-specific events. For example, participants shared the following:

> I've developed friends with benefits by having conversations over text and asking, 'Do you want to come over and hang out or watch a movie' and not doing anything. Or, 'Do you wanna go out for dinner or do something else?' – that kind of thing. – P13

> I met a couple in a bathhouse, and they were engaging in stuff. They knew other couples and it grew in that way… I know them and they know me. – P11

> It's more or less through chemsex that I meet people. Sometimes, it turns out to be more that that… maybe go out for supper. I've met one person that has actually been an important person in my life… I never thought that would ever happen, but its fun and I've fallen in love. – P7

As captured in the statements, chemsex spaces allowed participants to create emotional connections with other individuals. While these dynamics looked different for each participant (with some preferring to limit their interactions to chemsex and others exploring connections inside and outside these spaces), the underlying sentiments described a strong bond formed between people in their networks wherein they could express themselves. Indeed, within these connections, participants described how they could "know" and "trust" others in ways they "never thought would happen", which, in turn, opened themselves to new possibilities and potentials.

Building on aspects of community, participants also discussed the supportive nature of chemsex subcultures. Specifically, participants described the various ways they assisted others to ensure chemsex sessions were safe for all persons involved. For some, helping others related

to harm reduction measures, such as ensuring they had new, sterile drug equipment at parties or keeping Naloxone on hand at said events to intervene in the event of an unintentional overdose. Other participants described educational interventions (e.g., personal experiences or tips and tricks for substance use) they imparted to people within their networks – particularly those who were new to the chemsex scene and might not have been aware of some of the possible risks.

Related to harm reduction strategies, participants described different means they sought to reduce the risk of blood-to-blood exposure from sharing or re-using drug equipment, as well as the risk of possible overdose from toxic drug supply (e.g., substances laced with opiates) or polysubstance use (i.e., from mixing multiple formulations of drugs). On this, participants stated:

> At first, we would just go wild until you witnessed some experiences that make you take a pause. Now, we have a group chat where we discuss who's bringing what substance and what substance it is. Some people will do the research to figure out, 'This shouldn't be mixed with this'. – P11

> If I know several people are having parties or I'm having my own party, I'll ask if people need harm reduction supplies and what kind of things they need… If I have people over, I'll give them a space that theirs to put their clothes and phone and stuff… I'll also have water or juice and make sure they drink it because people forget. – P13

> I watch people's intakes to make sure they're not overdoing their products… Knowing how to use a Naloxone kit is one of the most important parts to party and play cause you never know if somebody is gonna OD – and if they do, you need to know how to administer it and the laws around that. – P7

Participant 12 also shared how they assisted individuals at the bathhouse who might not have been able to provide consent to sexual activity due to inebriation or incapacitation:

> If somebody's in my room and they've maybe done G and they pass out, I won't leave the room until they way wake up. I don't care if its 2 hours or whatever, I won't let anybody touch them because that's happened before… And I would hope someone would do that for me if that ever happened to me.

Based on these descriptions, tenants of harm reduction seemed to play a fundamental role in chemsex subcultures. Participants spoke about the various ways in which they protected themselves from possible overdose or injury (e.g., "ask[ing] if people need harm reduction supplies") as well as strategies they employed based on their own personal experiences to ensure

the safety of all attendees by “watching peoples intakes”, “researching” substances and their potential interactions prior to use, providing guests with a safe space to put their belongings to avoid them being misplaced or stolen, and safeguarding peoples wellbeing while incapacitated.

While most participants emphasized the importance of having harm reduction materials on hand during chemsex interactions and the various safeguards they employed to protect themselves and others from potential harm, others described taking on more of a mentorship role. More specifically, these individuals spoke of education or knowledge sharing they imparted to others based on their own experiences with chems – not for their own personal benefit, but rather, to safeguard their peers from potentially experiencing the same outcomes. On this, they stated:

> If someone is doing it for the first time, I will lose my shit… I will give a fucking speech. Especially with HIV stuff and PrEP. I just want someone to learn from my mistakes. I wasn’t smart enough. So, if someone’s not on PrEP, it’s like, why would you not just do that for yourself? – P2

> I’ve always wanted anybody else involved in drugs to know they’ve always got someone they can go to for a chat… Even when I used to sell, if people told me, ‘I wanna quit using this’, I wouldn’t sell to them anymore. Its as simple as that. Even if I’m doing it myself, I’m the first person to tell people not to do it. – P1

> If a person starts using chemsex at this moment, I will really advise them to stop because it’s really hard when you’ve gotten engaged for too long. – P5

> There’s no real matrix that’s been used to say, ‘If you see this or that then it’s a problem’, so we come up with our own way to do it. So, when you’re new to it, someone’s gonna have to teach you all that… how to hold the pipe, how to burn it… that is how you are really brought into it. – P3

For participant 4, the impetus to assist others seemed to relate more to a moral obligation – specifically to give back some form of support they felt they never previously received. These actions, however, appeared to have been met with some frustration in situations where they had prepared for a “particular kind of evening” but were faced with the ethical dilemma of potentially introducing somebody to crystal meth for the first time. On this, participant 4 stated the following, speaking externally about the exploitation they observed in some networks where older (more seasoned) users seemingly took advantage of younger men who were unfamiliar with chemsex:

> I'm not trying to be anybody's daddy because I never had one. I don't want to look out for you, but I have a conscience… I'm high - I didn't lose my morals; I just put them away for a minute. And now I have to talk to this little boy and tell him these old men are gonna ruin his life and crystal meth's gonna fuck him up. Kind of a downer.

Regardless of the act (e.g., providing physical supplies, looking out for somebody else, sharing their own experiences with chemsex), the impetus to assist others was found to be a central component of chemsex communities. With many participants reporting meeting their partners online and engaging in casual (or one-time) hookups, it was notable that their desire to protect others extended to veritable strangers. Indeed, for these participants, it did not matter how long they had known somebody or how that person might react to their "speech" – they witnessed a familiar situation (e.g., using for the first time, wanting to stop using, being at risk for HIV acquisition and not using PrEP) where they had once faced harms and wanted to use their experiences to prevent those same potential harms in somebody else. Considering the layered aspects that brought participants to chemsex in the first place, being able to engage reciprocally with their community seemed to hold a meaningful role for their personal and mental wellbeing.

Positive sense of self. Delving further into the dimensions of *Interiority* within chemsex subcultures, participants spoke of the positive impact of these communities and spaces on their personal identity and mental health. Some expressed how chemsex made the "normal" (or mundane) aspects of life more exciting, while others highlighted the enjoyable effects of the drugs on their overall mood or to enhance a feeling or desire that was subconsciously brewing within them. For others, chemsex allowed them to shed prior insecurities and become a different person – one that was unattached, carefree, and more willing and uninhibited to try new experiences.

Several participants spoke about the positive feelings elicited by crystal meth and other substances they consumed during chemsex – particularly related to the rush of excitement after the initial 'hit' of smoke or administration of an injection. The feeling of their heartbeat increasing and the rush of endorphins to the brain, facilitated an almost immediate feeling of happiness for

these participants – transporting them from their everyday bodies to an elevated state of self. Related to this transformative state, participant 4 described the flow of emotions elicited by chems:

> It's the ritual, the passion, the use, the partner, the situation… just that initial engagement with a partner, with the drug, with the smoke. It's the actualization of what I've been visualizing – willingly or unwillingly – here it is. Here's the moment.

Other participants described similar positive feelings from the use of chems and shared how these experiences shaped their ongoing engagement in chemsex spaces because they wanted to savour the euphoric effects for as long as possible. On this, participants stated the following:

> I think it was the feeling in a way. And then, just doing something that seemed so different. Because my life before was just so normal and I was doing things that were so much more adult and living my life. It just seemed more fun – throwing everything out the window in a way that was just *exciting*. – P2

> The best part about it for me, is fun… I just float away from depression, anxiety, stuff like that. You have a lot of time to feel and see that we are living a good life. – P5

> It's just the joy of it. The buzz that you feel. The carefree attitude… Exploring more and more with different kinds of substances to see if that gives me the buzz or the confidence boost I'm looking for. – P11

> When I started PnP, it put me in quite a different mood… it makes me feel good. I feel like I'm normal. – P6

These statements from participants provide important insight into motivations for chemsex – or substance use in general. For many, the internal drive was not necessarily related to a reliance or dependence on chems, but rather, an inherent pleasure from the effects of the substance itself. The change in "mood" from the "buzz" of crystal meth and the coinciding confidence boost they felt from these drugs allowed participants to break the patterns of normalcy they felt sometimes overshadowed their existence and just "have fun". Chemsex thus allowed participants to extend a version of themselves that they did not feel "confident" or "adult" enough to express previously.

Building on these sentiments, participants also spoke about how the positive effects they experienced from crystal meth and other substances facilitated a change in their persona. For these participants, it was not that chemsex made them a *different person*, but rather, that the combination of the substances they consumed and the energy in the spaces they occupied

allowed these men to present an alternate image of themselves to others. Under this surrogate persona, participants noted how chemsex allowed them to express a more unencumbered version of themselves – one that was confident and carefree, while at the same time, maintained the essence of who they felt they were on the inside. On this change in persona, participants shared:

> Before the chemsex, I would see myself so low. I felt like I wasn't able to do anything or wasn't able to satisfy my partner… But suddenly when I take this stuff, I feel completely different. Now, I can do anything I want… I feel strong in those moments – like I'm a King. – P5

> When you meet someone new, you tend to show what you want to of your personality. With chemsex, I'm a completely different person. When you're high, you're just carefree – like 'This is who I am'. I think the different person is in the real life… you're so vulnerable compared to when you're high, it's just like 'Whatever. Fuck it'. – P11

> When I'm on drugs, I feel a different way because most times, I'm not actually me because I'm doing things that are outside of my body. My attitude and behaviour are different. I have different feelings and urges and in the process, … I feel normal. – P6

As gleaned from these statements, participants spoke of the powerful positive effect of crystal meth and chemsex in facilitating an enhanced (not alternate) version of themselves. Notable in these descriptions were references to feelings of "normal[cy]" associated with chem use in that these men felt that with substances, they could showcase their true identity to others compared to the person they felt they had to be in their "real life". While not explicitly stated by participants, the ability to "feel strong", operate "outside of [their] body", and share with others "who [they were]" seemed to underscore a sense of liberation from personal and social pressures of conformity and from some of the mental health experiences that led them to feel isolated in the first place.

Other participants expanded on the 'freeing feeling' facilitated by chemsex by sharing the positive impact of this practice on the dynamics they had both with themselves and others. For example, participants 7 and 12 noted how chem use made them feel more self-assured to stand up for themselves in situations where they encountered antagonism from their peers, which may not have been a practice they previously felt confident enough to do in their day-to-day lives:

> I become more confident and I'm able to stand my ground on things. I don't let people push me over anymore. – P7

> For me, [meth] lets me be myself more. I used to be very quiet. I would put up with a lot of crap from people. And then it became that I'll say what I'm feeling and what I wanna say, but I'll still do it in a positive way. – P12

The change in persona elicited by crystal meth use also allowed individuals, like participant 1, to be more comfortable engaging in social activities. Where feelings of social inhibition might have previously precluded them from connecting with others, the use of chemsex allowed them to become more outgoing and sociable because they felt more confident and energized to do so:

> [Meth] helped me get over social anxiety. I wouldn't be able to just meet up with my friends to have a drink with them because I had no energy or desire. Nothing would make me commit, except having a hoot or two of meth, obviously.

Lastly, for participant 4, a change in persona allowed them to mitigate some of the internalized tension related to their sexuality. As somebody who did not self-identify as gay, aspects related to sexual practices and personal pleasure appeared to be confounded by implicit norms within the gay community of promiscuity or sexual excess. The use of crystal meth, however, allowed them to experience some of those delectations (disinhibition, connection) outside of the negative social gaze (or fixed identity). In this case, a change in persona produced a liberatory effect, shifting how this participant could present themselves and opening them up to new capacities:

> I would consider myself prudish without using… not prudish, but just cautious. I just think people move way too fast. With homosexuals, its so casual: you just sleep with anybody… even 10 people in a night and its just this hush-hush thing. People think being gay is so cute, but its kind of gross. So, with meth I was able to be one of the guys – no inhibitions. I just let it all hang out. Tell them to 'fuck off' and do stuff I wouldn't normally do… and I really liked that person.

The foregoing statements by participants highlight the often-overlooked – yet important – role of chemsex in building a positive sense of self. For many of these individuals, aspects of community were not only about building connections with, and being able to assist, others, but also about having the self-confidence to feel accepted exactly as they were – and based on a multiplicity of underlying life factors, not all these men really felt like themselves outside of their chemsex subcultures. Indeed, the spaces and faces and substances surrounding chemsex engagement enhanced aspects of themselves that previously might have only existed in their subconscious –

but with “a hoot of meth” they described suddenly being able to stand tall “like… a King” and say “Fuck it” to the insecurities and vulnerabilities that might once have held them in isolation.

***Putting the ‘chemistry’ in chemsex*.** Another notable dimension of the *Interiority* of chemsex subcultures was the positive influence this practice and community had on the sex lives of those involved. Aspects of sexual pleasure were even more exceptional for these participants, considering that all had acquired HIV through a sexual exposure and many had described underlying traumas related to this diagnosis that sometimes prevented them from experiencing the rapture of truly unadulterated pleasure. In other words, a preoccupation with HIV exposure or transmission or prior experiences with rejection from a sexual partner might have held some of these men back from engaging in the sexual practices or fantasies in the ways they truly desired. In the context of chemsex communities – specifically the acceptance and assistance they received from others and confidence they felt in themselves – participants began to experience sexual pleasure on a different plane. These experiences related to three main factors: the sexual and emotional chemistry with their sexual partners, the ability to become completely disinhibited from their bodies and surroundings, and experimentation with new sexual practices and roles.

Specific to sexual chemistry, participant 13 described how the experience was dependent on the shared energy and emotions between themselves and their potential partners, stating:

> [Chems] heighten the emotional and sensual parts of sex… I practice tantric sex, so there’s a lot of touching and energy exchange. It’s not the end result for me; it’s the whole journey: the rollercoaster of going from mild to wild and back again… It’s about the chemistry between two people. There has to be some feeling that the other person wants to be there and wants to do it.

Other participants expanded on how group norms within these spaces facilitated sexual pleasure:

> Everybody has consented to being in this space and that’s the wildness of it because you can experience stuff – especially kinkier stuff – easier when you’re on the substance. The sexual experience is more enhanced in that sense. – P11

> When chems are used in a sexual setting, it becomes about more and more people. Its no longer about having sex with the person that is there, but just about the *thought* of it… about amplifying what was already on your mind. So, if sex was already on somebody’s mind, they consume it, and that’s why the party goes on for days. – P3

Some individuals noted, however, that the sexual chemistry between themselves and their partners was more dependent on the dynamic in a particular moment in time. As aptly described by participant 8, these relations were like "looking for the perfect storm" in terms of the person, the space, the energy, and the level and type of high they were experiencing – and, like many storms, could change on a whim. Participants described the dynamics of their sexual chemistry as follows:

> It's not like I get high and automatically want to fuck around. There's a build up to that, a plan. But there have also been times where drugs have been thrown in that weren't planned and sex has been great… It's just how things happen. – P8

> The chemicals affect the way you see the world… you get blinders on and don't see past this haze you're in – and everybody else is in that haze. But things depend on the individual and how I respond to the energy they're putting out. As long as everybody is calm and relaxed, I'll be fine too. – P9

> It really depends on who I am with and our chemistry and everything else. I'll go beyond my limits or what I think my limits are, but I still have to *want to do it* – otherwise I'll tell them to fuck off. – P12

As noted, the sexual chemistry between participants and their partners in some instances, required a delicate balance of factors – but when combined with the right dilutions (involving different parts of mood, setting, partner, substances) could result in a "rollercoaster" ride of heightened physical and emotional sensations. Adding to this elusive experience is that, despite participants' intentions entering a particular contact achieving this inductive level of sexual chemistry was not always guaranteed. Indeed, many explained the integral role of their own mood or mindset in establishing this dynamic – specifically, how the very "thought" of sexual desire was amplified in the "energy" and "haze" and "buil[t] up" in the reciprocal desire of their partner(s) and within that moment.

The culmination of this sexual and emotional chemistry produced an uncontrollable force within these men that catapulted them into a state of pure disinhibition. In this realm, participants described achieving a state of complete sexual freedom – where they saw faces, parts, and appendages in front of them and watched themselves and others moving, touching, contorting, and breathing, yet experienced it all outside of their cognition: a veritable out of body experience. Such

experiences were noted to be amplified when partners were also using and could reach that heightened state of being at the same time. Participant 3 described their experiences as follows:

> The best part is when I see pleasure in others. You might meet somebody that is shy to express themselves and then when they are, they will *really* tell you what they want – especially in the sexual type of setting. Also, you may find that person who might be ashamed of who they are or what they're doing, but are finally able to express themselves in somebody else.

For participant 6, disinhibition was experienced with more physical exigency, who stated:

> Its this *urge* that comes in for you to take some things and do some acts to feel better. Your whole body changes and your mindset becomes different because you're so overwhelmed with pleasure.

Other participants described the impact of this level of disinhibition on their sexual behaviours, noting how they became more willing to push their boundaries beyond their usual (or perceived) limits. In the words of participant 8, they were no longer "seeing things in grey… it's either black or white" and as a result, this participant and others were "able to act on things I [thought] about without feeling bad about it" or considering what those limits were at all, because in that particular moment, pleasure was all that registered. Participant 8 also described how this heightened state of pleasure produced positive changes in their sex live, stating, "I find the vanilla aspects of sex to be boring, so I like to try different things… having sex and getting high brings out a dirtier side of me that I enjoy". Similar sentiments were shared by others who described the following:

> If we're both high, then we're both in the same place. You have fewer inhibitions and so, there are also fewer restrictions. More things become acceptable. – P9

> My confidence level is usually way up. I see myself as more of a submissive person when I'm high – asking partners, 'What do you want to do?', which is very different because I know all kinds of things we can do together, but I don't tend to have any direction in those moments. I'm really looking for suggestions from others. – P4

> Meth is really a by-product for having sex. It makes me more likely to act upon feelings I had – and when I'm horny, I'm more likely to actively engage in sex. – P1

In this view, crystal meth and chemsex helped participants and their partners shed some of their insecurities and allowed to engage in unrestrained sexual pleasures. For some, these desires were more specific – such as "bringing out the dirtier side" in them, being "submissive" to the

direction and desires of their partners or having sex without “restrictions”. Overwhelmingly, however, it appeared that chemsex gave these men permission to “express themselves” in ways they previously did not think were possible, by allowing them to “try different things” and “act on [their true] feelings” without feeling guilt or shame for their desires. In this way, disinhibition could also be viewed as a profound form of sexual liberation for these participants.

Within this unrestrained state, participants also discussed how chemsex allowed them to open themselves up to new sexual practices. For them, pleasure did not exclusively relate to achieving an altered state of mind or being open to new possibilities but also having the passion and confidence to engage in these activities without restraint. While some described these actions as “risks”, none of them spoke of them as inherently *risky* behaviours – in that, they did not perceive these specific activities to pose a clear risk to their health or wellbeing. Rather, these “risks” were articulated more as *thrills* that seemed to spark feelings of stimulation and arousal in these men. Adding to this rush of pleasure was that participants in these spaces appeared to be equally willing to experiment with their sexual fantasies. For example, participant 11 stated:

> If I’m high at a sex party, kinkier stuff is happening, including sex toys, golden showers, fisting… In the heat of the moment, your adrenaline is up and you’re more willing to be like, ‘Lets have sex outside in public!’. This kind of risk arises. Desire arises. There’s more excitement.

Other participants spoke about how chems opened themselves up to experience and experiment with more radical sexual practices they had heard about or watched others engaging in (e.g., at sex parties, in online video chat rooms, or in pornographic images or videos), stating:

> Different sexual acts I saw in porn that used to seem disgusting suddenly became interesting – even, a high. – P12

> It’s a totally different experience being on chems. I’ll do things that I normally wouldn’t do and be more open to different kinks and fetishes that I may not do when I’m sober or high on other kinds of drugs… it takes down walls – good and bad. – P14

> If I mix in GHB [with my chems] things get a little sweatier. I become a bit more experimental with toys and stuff…. It would never usually cross my mind to invite two more people into a room to watch me have sex with somebody, but those things tend to be the norm with people who party and play. – P4

> I like the anonymity of meeting someone and boom! We get high, we fuck around, and then I may never see them again. – P8

Based on these descriptions, the pleasure participants experienced was not necessarily a physical reaction from a specific sexual act – like a fervent orgasm. Rather, it seemed this thrill-seeking behaviour was primarily motivated by the excitement they experienced from experimenting with new activities, different positions and drugs, and a range of possible partners who shared similar interests. While these statements seemed to be centered around sexual activities, there was an underlying tone of community and acceptance in these narratives because this enjoyment was not happening in isolation. Indeed, all participants had different – yet overlapping – perspectives on how chemsex radicalized their sex lives (deterritorializing their bodies and taking pleasure to previously unimagined heights or bounds) and how this was largely facilitated by normative values within these subcultures of "people who party and play". In other words, the players in these groups shared an implicit understanding of each others wants or needs (e.g., kinks, fetishes) and thus, were more open and willing to ensure these were met.

Guys just wanna have fun! A final component of the *Interiority* of chemsex subcultures relates to its role in facilitating personal enjoyment and social interactions. In other words, these participants favoured chemsex simply because they liked how chems made them feel when they used them and appreciated the role these substances had in creating connections with peers in their respective networks; the value of which cannot be underscored. Much like socially normalized substances (e.g., caffeine, alcohol, cannabis) commonly consumed as part of recreational activities, crystal meth acted as a social tool for these men to both enable and ease their interactions with others – regardless of the nature of said relationship (i.e., personal or sexual). As previously noted, crystal meth and other substances created a positive sense of self and of acceptance – and as a result, participants preferred having sex while high. This was not an issue of reliance or dependence, but rather, that the effects of the chems made them feel good. Personal enjoyment thus became a primary motivating factor in ongoing engagement in chemsex.

Related to the fun of chemsex, several participants noted how the substances used during these sessions made them feel. With the effects of crystal meth known to activate various pleasure centres in the brain, it was unsurprising to remark the positive effects this drug had on participants' state of mind and their sexual dynamics. What was notable, however, was the aspects of community connection that surrounded their statements. For these men, chem use was less about chasing a particular high and was more centered around the *feeling* that enveloped chemsex circles: the people, the comradery, and the euphoria all combined to create a quintessential experience. For participant 7, this feeling seemed to represent what "T culture is all about" – specifically, "enjoying each other and enjoying having fun". This sentiment was echoed by other participants who described the personal gratification of chem use as follows:

> For me, the most pleasurable part is the rock and roll. You know, drinking, having fun, taking some pills, watching people have sex and sometimes joining in. – P5

> If I think back into my history, you'd go to parties and there'd be a couple of people playing, then you'd get their number and things go from there… It just gives you this high that makes you more sexual, more energetic. – P10

> The pleasures are all about having fun. Talking and interacting with someone else. Life just feels different on chems – I'm having the best sex and I feel good. – P6

> It's like when you meet somebody for the first time, it doesn't matter who they are, you just have a really great night. Or, you meet somebody and have sex with them for the first time with them on everything… you're just left feeling awesome… everything and everyone is very connected. – P12

Notable in these descriptions were specific references to the "fun", "awesome", and "energetic" aspects of chemsex subcultures. As captured above, participants were not necessarily going out to meet people to fulfill a specific checklist of objectives (e.g., 'I need to get high and have sex'), but rather, were seeking out *experiences* with others. To curate these encounters, participants described being present in the moment and allowing their "good feelings" to guide the way. For them, it "[didn't] matter who [these partners] were" or if they only "met them for the first time", because the people in these spaces shared the same cravings for "interaction" and "connection".

Building on the fun and exciting dynamics of chemsex, participants also shared how these networks facilitated opportunities for socialization. Many noted how the perceived nature of chemsex participation – for example, meeting strangers in private or public venues for the purpose of having sex – seemed to minimize the reality of these spaces and their ability to create meaningful connections with others (even if these were only for a night or weekend). Indeed, for many participants, chemsex was one of the few opportunities they had to interact, converse, and spend time with other people – in particular, people who seemed to understand and accept them for who they were. For example, participant 10, shared how "PnP is about my only social activity these days. I used to always go to the bars… but I just don't have the energy anymore". A similar sentiment was shared by participant 2 who often turned to chemsex, just for somebody to talk to:

> I would definitely talk to people quite a bit. I would hang out with them for hours because if somebody's high, they're going to be up and talking … I would say most of the time I was even with people, it wasn't necessarily done sexually. Of course, there was a lot of that, but I did like getting to know people and I missed having a social life and people to talk to. I missed having *friends*.

For these two participants, chemsex appeared to fill a void in their lives where aspects of socialization (friends, sharing, discussion, laughter) was missing. While not explicitly stated by these individuals, there was a notable undertone of loneliness and isolation that seemed to be (at least temporarily) addressed by their participation in chemsex because they knew other people would be present in these encounters – and if these contacts were also using, would be "up and talking for hours". In the context of changing motivations for socialization, such as energy levels or having close friends, chemsex provided a captive audience and a space for these connections.

Other participants described how their engagement in chemsex was enhanced by their ability to forge meaningful connections with other people. For some, this was an opportunity to enhance aspects of their personal relationships or to explore parts of their sexuality with their romantic partner, while for others, these networks allowed them to meet and engage with different people – and potentially, form friendships or other types of relationships outside of chemsex-specific events. These sentiments were further explained by participants in the following ways:

> I enjoy having people come in and relax and have a good time… meeting new people because the community is big – but its small at the same time. I've met some really nice people who have become very important in my life, so its important for that. – P7
>
> I've been dating my partner for the past 4 years now, so normally, I like being around him when we party and play… when you're in the midst of everybody partying, I feel the social life for me – it's like 'Wow! Everybody is around.' – P5
>
> I like the engagement of the PnP process where I'm doing drugs with different people, trying to catch different funs. It's the perfect time where you can get to know one another and talk to people because you often find you're in a state where you are sitting with different people… meeting different people and getting to understand different people's attitudes. – P6

Based on these statements, chemsex circles seemed to provide an ideal venue for people to meet and interact with one another on an 'even playing field' because these were spaces that operated under similar conditions (implicit and explicit rules) and thus, presented similar opportunities for connection. With personal enjoyment being a central component herein, it was apparent from these statements that the desire to "meet new people", "catch different funs", and be involved with a "big yet small community" overlapped between participants and their partners.

Exteriority

The second component in this theme discusses the *exterior* relations of chemsex subcultures – as a web of connections, flows, and interactions that can produce fragmentation (tensions) from their interior forces. In this case, participants described exteriority in terms of feelings of alienation from their community and the sometimes-superficial behaviours they observed among others, which served to separate them from the very thing (the affective interior of their networks) that made them feel close to others. Thus, while seemingly contradictory to aspects of community described above, exterior relations flowed in parallel with the aspects of connection.

Alienation. Aspects of *exteriority* begin by exploring feelings of detachment or alienation that participants sometimes experienced within their chemsex subcultures. While chemsex was rarely enjoyed in isolation, the inner workings of the dynamics between various participants did not consistently foster a sense of connectedness, which, in some moments, led them to feel

estranged from their own community. For some participants, this sentiment related to a specific incident or a series of events that forced them to reflect on their place within this subculture, while others described a general apprehension about the impact of this network on their overall wellbeing. Participant 4, for example, stated that they "don't really feel any personal connection with the people I use with", and shared how their perspective on aspects of community and connection started to shift after a traumatizing incident occurred within their peer network:

> One person from my group did a full-on Whitney Houston: crystal meth in the bathtub. Like they *died in the tub* and stayed there for days… and the group got high right after the funeral. They were making plans at the funeral to get high 'in his memory'… it's sad. We lost a friend and that's how you deal with it?!
>
> T is a hot topic, but yet nobody is around to help. So, do I feel a sense of community? Not so much anymore. Real friends would be there for you and tell you if you're doing too much, but they can't really do that if they're doing too much themselves.

For Participant 2, some of their reflections on the camaraderie of chemsex networks began when they were in treatment for crystal meth use, and thus, separated from the "friends" in their group:

> I can be very easily influenced and that's something that's been taken advantage of quite a bit. But when you're stuck with the people that you see or the community that you create for yourself it's a matter of, well what else am I going to do? Who else am I going to see? Might as well put up with that because I'd rather not be by myself.
>
> When I went to treatment last year, I realized that everyone that I thought was my friend wouldn't care if I died tomorrow or they wouldn't even know… I was there for a month, and nobody tried to contact me. No one cared. The people I thought were my friends are not my friends… they were just people that I spent time with.

Apparent in these narratives were underlying pangs of sadness and disappointment over having been hurt by the people they felt closest to. These were people with whom they spent most of their time, shared all aspects of themselves with, and ultimately regarded as "friends" (or extended family, even) who participants suddenly felt like "wouldn't care if [they] died". Based on the reactions of these participants – e.g., "real friends would be there for you" and "no one cared" – it seemed the resulting injury from this pain led them to become isolated from themselves and others. Considering the passion and intensity with which chemsex sessions often operated, it was notable to remark the palpable despair with which participants experienced these pitfalls as well.

Other participants shared similar perspectives about feeling separated from their community. It was not that they felt they did not 'belong' to a group, but rather that there was a disconnect between their experience of this community and how it made them feel. In other words, participants described how they did not feel like these relationships were always reciprocal, and sometimes, took more than they gave in return. On this, participants stated the following:

> I could talk to friends, but I worry that I'm being judged on what I'm saying… I worked hard at my friendships for a long time. I don't want to scare people away like that ever. I'm usually a happy person, or that's what they see, so it would be out of character for me to say something that's bothering me, which is why I'm reluctant to do it. – P8

> I find it hard to trust a bunch of meth heads … a lot of the community doesn't have the same ethics as I do… There's not very many of them that I would say are actual true friends. – P1

> I'm really not interested in getting help from [people in my circle] because I don't see how the information they have would be helpful when they're all high… they're not really in the right state of mind to be encouraging to someone. – P6

Within these statements, it appeared that a sense of community was strongly shaped by a feeling of trust from their peers. In the absence of that trust, participants felt they could not fully open up to these individuals for fear of potential negative repercussions, such as "being judged" or not being able to believe what these peers are doing or saying because of their questionable "ethics" or because "they're all high". While all spoke about actively participating in a group and spending time with "friends" or others in their circles, there was a notable hesitation in how they sometimes described their associations within these groups – as more surface-level relationships. Compared to how impactful these bonds were as described previously, experiencing this level of disconnect could also affect their mental health if they felt they could not depend on their peers.

Superficiality. Building on specious nature of chemsex subcultures, participants also shared insights into their sometimes-muddled dynamics with others. The superficialities of chemsex subcultures most often presented as judgments they held about their peers or that their peers held against them, including HIV-related stigmas, negative perceptions about others' sexual or substance use practices, and a general skepticism about the behaviours of their peers. While

described in different ways by participants, the overall tone of their statements seemed to center on narratives of trust and an inherent desire to feel safe and be able to rely on others when needed. In the context of some of the self-described adversities many of these participants had faced related to their HIV diagnosis, social place, and involvement in chemsex, being able to be vulnerable with another person may not have always come easily or naturally to them.

While chemsex circles were often heralded by attendees as "judgement free" zones, it was notable to hear participants describe the various forms of prejudice that could occur within, or in relation to, these spaces. For a subset of participants, such incidents occurred in the form of experienced discrimination related their HIV status (as actions or behaviours by peers that framed participants as a threat to others' health and wellbeing) or substance use (where participants judged, and were judged by, others for aspects related to their chemsex practices). However, for the majority of participants, discrimination occurred in the form of enacted judgements against people in their direct peer network or broader networks of GBMSM (who were or were not engaged in chemsex), which may have affected their ability to trust and form relationships with others.

Specific to HIV, participants spoke about how social misperceptions regarding HIV impacted their encounters with others when questions about their status arose, particularly when these were presented as implications of wrongdoing – or tainted moral character – related to HIV acquisition. As participant 14 noted, this form of discrimination occurred even within subcultures of people living with HIV, which they felt served to segregate groups of GBMSM. They explained:

> Even amongst us, it's like, are you the guilty or the innocent? Did you get it by blood, or did you get it by drugs or sex? If you're gay and used IV drugs, well now you're a part of *that* group even though you may have had unprotected sex for years before you used drugs and just hadn't been tested, you've fallen within a different group.

This narrative of "guilt [versus] innocence" led this participant to feel like their status was a mark of disgrace (a scarlet letter 'H') in the view of peers they thought, supported them without question. While the chemsex-specific activities they engaged in with these partners often occurred in the

same context – e.g., a casual sexual encounter – participants felt they were subjected to a form of moral reprehension for engaging in the same acts these partners were about to engage in with them, because they had once encountered HIV and were suddenly seen to pose a risk to others.

Participant 13 shared similar judgements from partners related to their HIV status, stating:

> Who's the person they might blame [if they become positive]? They'd go straight to the person who is HIV positive – even though undetectable – because it's happened to me before. But they'd forget about the person who said they were negative but had never been tested before. Or they could've gotten it from somewhere else… it's one of those catch 22 things.

For this participant, the experience of having been "blame[d]" for the consequences of somebody else's actions led them to isolated and have to safeguard themselves from potential partners. The feeling of constantly being in a "catch 22" situation felt inescapable because sexual transmission was the most common form of HIV acquisition and sexual contact was the most common activity in chemsex spaces. In this scenario, it did not matter that partners "had never been tested" or that they might have been exposed to risk elsewhere; the only relevant judgement was that they were currently living with HIV and were most likely "to blame". As a result of this seemingly repeating cycle, this participant felt that as an HIV positive person, they could never fully escape the need to have to defend themselves against the potential for discrimination from their sexual partners.

The impact of social misperceptions that seemed to circulate in segments of chemsex circles was elaborated on by participant 12 who spoke of their frustration with "ignorance":

> There's so much ignorance out there, but mostly, in the gay community. There's so much stupidity in people asking things like, 'Are you clean?' Cleanliness is not a health condition. And what's the opposite of clean… dirty?

Based on the tone of this statement, it seemed discrimination in chemsex networks occurred as a dichotomy of morality: where "cleanliness" and "innocence" (i.e., being HIV negative) was synonymous with righteousness and "dirtiness" or "guilt" (i.e., being HIV positive – especially if such exposure occurred through injection drug use) was a mark of impurity. These social inscriptions were used within these circles as a means of determining who was or was not worthy

of acceptance – with these participants being seemingly less deserving of this embrace. The apparent frustration in the statement of participant 12 also reflects a degree of hurt or sadness over being seen as "dirty" or "[un]clean" simply because of their HIV status and highlights that for many participants, aspects related to HIV subjectivity could sometimes feel inescapable.

This hierarchization of morality also seemed to extend to other aspects of chemsex participation – particularly, with respect to the substance use practices that occurred within these circles. Within these views, participants spoke of the varying perspectives of chem use, including their views on the practices of others, and the reactions they received from peers (both in the chemsex and GBMSM networks) regarding their own use. For example, participant 13 shared:

> I find the attitude of gay guys is that if you smoke T, you're not an addict, but if you slam T, you are. I try to explain to some of them that they're actually smoking more than I would be slamming, but… just because you put the needle in your arm, you're an addict… The gay world is funny sometimes because you've got people who use pot, people who drink, people who party, people who do crack, people who slam – and each of the little sections thinks the other is worse. We all do the same thing.

Similar sentiments about the social perceptions of substance use were raised by others, who shared their thoughts on the sometimes-peripheral nature of chemsex engagement, stating:

> I can see people on the street partaking in certain drugs, and I can say, I'm not part of *that* group because its out in the open. Whereas, if we meet inside, we smoke, its all contained. It never really spills out, so [people] never really know about it. – P3

> I haven't had a good experience with drug addicts. I'm not going to push for a relationship with a drug user who has all of these problems… I'm pretty selfish and controlling, but not to the point where I wouldn't consider somebody else's feelings and these people do not consider me. They just use from me and steal from me. – P4

Within these dynamics, participants seemed to view their position as somewhat outside their own circles. From this position, they observed others engaging in behaviours that were similar to theirs but carried an implicit aspect of immorality, which served to delineate their actions from those of *others*, for example – slamming versus smoking defined somebody as "an addict", using in public versus private put somebody into a different "group" (or risk category), or using and stealing from somebody versus considering them was a sign of a "problem[atic]" person. It was not that these participants considered themselves to be superior to any other person or group because they

"were all doing the same thing"; rather, it seemed that these others exhibited certain actions or behaviours that participants did not identify with – as if they excluded themselves from it.

Aspects of *Exteriority* were further explored as participants recounted the varying dynamics of their relations with others that could sometimes complicate their engagement in chemsex. While on the surface, these dimensions might have read as judgments or complaints about their peers, they served to underscore the complexity of chemsex subcultures and explained how participants process the forces of intensity that permeate these spaces. These intensities related to perceived values of, or exhibited behaviours by, peers in relation to their substance or sexual practices or personal character that could convolute feelings of community.

In relation to substance use, participants discussed the effect of "overplaying" during chemsex sessions and how this could sometimes negatively affect the level of pleasure they experienced during play. There seemed to be a delicate balance in terms of how much of a given substance ought to be used in these interactions – or how much emphasis was placed on the *chemical* aspect of chemsex – before things became complicated by the secondary effects of the drugs. That is, before things became more focused on getting high than "get[ting] off". Participants spoke of their experiences managing partners at different levels of intoxication as follows:

> It's really hard to find other partners where the drug doesn't overplay the whole sex thing… one hit after another after another and its like, 'When are you going to suck my cock?' It's like they want the dope more than they wanna get off. – P8

> If somebody starts [a chat] with 'party?', they're on the hunt for substances that they don't usually have and they're looking for anyone to play with to fill their need. – P14

> Some people invite people over to have people in their home, and they just spend the whole time getting high. They supply everything and the other people don't even engage. They're just there to use their drugs and space. – P4

In these scenarios, the ambience of chemsex sessions seemed to be altered when partners arrived at a party hyper-fixated on substance use. The art of chemsex was no longer about intimate moments of mutual disinhibition and euphoria because these partners were not in the same mind frame to share those same sensations; their mind was focused on drugs. Considering

the sometimes-long-lasting stimulating effects of crystal meth, participants may have also experienced a certain level of mental (and physical) frustration in these moments if they had used chems in anticipation of a sexual encounter but could not “get off”. Participants thus may have had a sexual contact, but in these moments, it was certainly not a sexual connection (or climax).

For some participants, a preoccupation with chemicals forced them to step away from these partners because they felt ill at ease in that interaction. It was not necessarily that they felt unsafe, but rather, were uneasy with the feeling of being taken advantage of. For example, they stated:

> Some [people] come in wanting T right away and if they’re coming just for that, I don’t feel comfortable with it… What is this? Am I supplying the neighbourhood? It gives me this gut feeling that something is off. – P7

> There’s been times [at the bathhouse] where its like the youngest, hottest guy in the place and he keeps asking me, ‘Can we smoke more? Can we smoke more?’ That really gets my back up. I don’t care how hot he is, I’ll throw him out of my room if he keeps just asking me for drugs. It’s just manners. – P12

These statements serve to underscore the importance of mutual respect in chemsex circles. While on the surface chemsex subcultures might present as casual or aloof in nature, in reality, they were deeply intimate and personal for these participants – which in some ways, presented as more rigid spaces. Indeed, there was an implicit order surrounding these connections that appeared to be based on expectations of mutual respect – in that, these men assumed their partners would conduct themselves in a similar way (e.g., share the same “manners”). So, when participants were faced with situations where they felt they were being exploited for drugs (e.g., when people “wanted T right away” or repeatedly asked to “smoke more”) an automatic ‘guard’ when up to defend themselves and the “comfort” of these spaces. Notably, however, participants did not discuss concerns with possible sexual exploitation in these encounters – in that, no one discussed an experience with being ‘used’ for sex; this was only referenced in relation to drugs.

Building on the intricate dynamics of engagement with partners who were using substances, participants spoke about some of the challenges they experienced controlling their environments when people became overly intoxicated. As previously explained in theme one,

chemsex sessions operated with a delicate balance of moods and feelings and substances to reach an optimal point of enjoyment (a 'sweet spot'). When people became too high, the balance was tipped, thus posing a risk to mutual experiences of pleasure. On this, participants shared:

> There are some people that are constantly looking at the window or they're constantly stopping because they think somebody is at the door. I don't want that! That just takes away from the whole pleasure of being high. – P8

> [One of the] downsides is just with people being schizophrenic and getting too high and losing their shit. Or getting too high to be able to perform. – P1

> The psychosis is usually one of the giveaways that they haven't been at home in a while… and it really takes away from all of it. Some people who I've had a really good time with before are now at the psychotic stage and I just can't deal with their behaviour now… You can't speak logic with somebody who's not being logical. – P13

In these moments, it seemed there was little that participants could do to change the outlook of their partners when they started exhibiting secondary effects of crystal meth. Indeed, there was a notable frustration and disappointment when people started to "lose their shit" or acted "[il]logical" because this "took away" from the enjoyment and excitement of the "pleasures of getting high". Given the reported frequency in which symptoms of psychosis could sometimes occur, it was also notable to remark that this did not appear to be an outright deterrent for ongoing participation. Rather, it appeared to be an implicitly understood (yet, unfortunate) norm of chemsex subcultures.

An additional component to the intensities of chemsex subcultures related to the sexual practices of others within these networks and the anticipated risk the behaviours of others could pose to themselves. In such narratives, perspectives of risk seemingly related to specific actions or behaviours but appeared to be directed to subgroups of people within chemsex subcultures who did not share the same ethics as they did regarding sexual activity. That is, differences in sexual expression (i.e., perceived promiscuity) seemed to cause friction when these preferences diverged from those of participants. Related to this, participants stated:

> I find with some of the quote *power bottoms*, when they say they wanna get fucked *today* it does not matter. You can leave, go home, come back and they're still in that setting. And its not really whether they are sexually satisfied or not, it just the only thing they can think of. – P3

> People who post ads online saying they've already taken 20 loads and they're looking for more… that's a trip to [the STI clinic] for me. I'm not judging because I've had my fair share, but its just like if someone is posting themselves as 'cum dump' – how many partners am I being linked with? – P14

> I may be playful, but I'm not a slut or a whore. I don't want to go from a partner now, and then one at 2:00 in the afternoon, and then again at 7:00 in the evening, and then I find someone else at 10:00 at night. I don't care what they do, but it's not me. – P13

Notable in these statements were feelings of detachment from some of the sexual preferences of peers within their networks. While participants were quick to note they were not "judging" these practices, their references to partners' self-described sexual identities as a "power bottom", "cum dump", or "slut" seemed to imply there were hierarchies of sexuality – and those who engaged in greater excess who could "[never be] sexually satisfied" seemed to present a threat to their personal identity, and by extension, their wellbeing (e.g., "that's a trip to the clinic"). In other words, it seemed participants might have been holding partners' identities against them as a means of separating themselves from others. An important consideration in this narrative, however, is that participants might have seen parts of their former selves in these partners (in that, they observed partners engaging in similar activities that had led them to acquire HIV). This sentiment was further explored in participants discussion of HIV risk and HIV prevention within chemsex circles:

> Throughout my years, people have asked me to infect them and all sorts of things which I would never do. I think because people are so open to so many things because of the drugs, it's like are they really consenting to what they are consenting to? – P14

> Big Pharma is out there tricking the kids these days – telling them 'Here, take [PrEP] and you're not going to get HIV'. Well, does [PrEP] work if you don't take it for 3 days, you've been up for 4 days and you've got 5 people with HIV ejaculating in you? They think its some super pill. – P4

> Everybody tells you they're on PrEP which is neither here nor there because what am I going to do – test them? So, when people try to tell me they're this or that [status] – I find it hard to believe. You could've been negative last week or last month, but you don't know right here right *now*. If there was a full week fuck, what – I'd prick you and you'd give me your results? That's the only way what they say would matter. – P3

Based on these statements, it appeared that an awareness of the potential outcomes of one's risk practices played a powerful role in participants' views of their peers. It was not that they

assumed these partners were all going to acquire HIV simply because they engaged in chemsex. Rather, these sentiments seemed to relate back to narratives of mutual respect that composed chemsex circles (e.g., to engage in HIV prevention strategies, such as routine screening or HIV chemoprophylaxis) and a genuine empathy for the wellbeing of their peers (e.g., "does PrEP really work if they don't take it", "are they really consenting to what they're consenting to"). Thus, despite the tension in how the risk-taking behaviours of others were interpreted by the participants, chemsex subcultures appeared to be underpinned by strong sentiments of community and support – particularly related to aspects of health and wellness.

Delving further into the importance of trust within chemsex circles, participants discussed how the actions or behaviours of other could sometimes affect their own personal (and emotional) safety in chemsex spaces. These concerns primarily related to a prior encounter they had with an individual that were manifested over time as a *type of person* they felt they could not trust, which, at times, led them to feel disconnected (or in some cases, completely removed) from their communities. For some participants, this sentiment related to experiences with persons whom they felt exhibited a questionable moral character (i.e., deceitful or disingenuous demeanor), which affected their confidence in the motivations of that person. On this point, participants stated:

> The risk for me happens when I see new people come into the party… faces which I haven't seen before. I get scared that maybe its somebody trying to spy on us and it makes me feel unsafe. – P5

> I don't generally go for new people because if you lie to me about your intentions meeting up, then I don't know what else you're lying about. – P14

> When it comes to chemsex info, we end up having to put a lot of trust in people who may have been doing it for longer… but that's not from any real authority. It's just you have to trust that person who may or may not have your best interest. – P3

These concerns about peers "not having [their] best interest" were shared by other participants, who spoke of specific experiences in which their trust was violated through acts of theft:

> I find it very very hard to trust a lot of [my peers] because they don't have jobs, so they're out there stealing. And if they're stealing from someone else, then there's nothing saying they're not gonna steal from me too… I've definitely been involved in

> a couple of home invasions where they've taken every single thing that's worth anything… for me, that was like hitting rock bottom. – P1
>
> I was very naïve when I first started going to people's homes. I never realized that while I'm in the bathroom, they're going through my stuff in the other room… There's a lot of untrustworthy people out there. People that ripped you off because it turns out, you trusted the wrong one, so then now it's become you don't trust anybody. – P12
>
> I've met some real idiots and some people who will rob and steal from you. I've had that many times. And it's a shame because I don't understand why people do it. It hits you in the gut because… you're being nice to them, and they just seem to rob you and don't care about you. Its like, 'Why are you doing this to me?' – P13

Within the foregoing statements, there was a palpable sense of disenchantment with chemsex subcultures (even, a heartache) with participants feeling as though they have been letdown in some way by their peers. Whether their experience related to a suspicious interaction with somebody "lying" or "spying" or a specific incident of being "invaded", "ripped off", or "robbed", these participants all felt (to varying degrees) that their trust had been violated. Recognizing the considerable amount of trust that cemented these relationships and dynamics, the experiences and coinciding emotions of participants feeling like they could no longer "trust anybody" or that nobody "care[d] about [them]" were a shattering blow to the foundation of chemsex communities. Most notable in these expressions of heartache was that of participant 7 stating, "Why are you doing this to me?", which further highlights the desperation of their struggle to trust other people at times. Though some, like participant 1, described these as "rock bottom" experiences, for most, this was not a rate-limiting step in their ongoing participation in chemsex. Rather, these experiences seemed to serve as unfortunate byproduct of the superficial aspects of chemsex and an ongoing reminder that trust was not necessarily inherent – but something that was earned.

A final reflection on the superficiality of chemsex subcultures related to the sometimes-manipulative aspects of participation, which in many ways, flowed mutually between participants and their partners. While experienced in different ways by participants, these exploitative dynamics seemingly related to feelings of being taken advantage of by others (or, seeing others being taken advantage) while in a vulnerable state, which in this case, made participants feel as

though they were being treated unfairly by others. Notably, this vulnerable state was not necessarily sexual in nature – but related more to participants' emotional wellbeing and their place within their own communities. In other words, witnessed or experienced acts of manipulations left participants feeling exposed. This point was more aptly explained by participant 2 who described:

> I would go to people who I knew would have [meth] if I couldn't afford it – and sex was something that I would use as a currency…There were people that I liked and people that liked me, but it was still like they weren't there to be with *me*. It wasn't friendship. They were with me to do drugs or to use me as bait to have someone else come over… I would say, the dynamic was always *using*. In any sense of the word, using.

As noted by this participant, certain dynamics of chemsex participation could feel somewhat isolating, particularly when the emphasis of these relations was focused on "using" – i.e., using somebody else for sex, drugs, or companionship or being used for sex, drugs, or companionship. In these moments, relationships became more transactional with both parties focused on fulfilling a specific need as opposed to facilitating a connection, which left this participant feeling removed from a sense of community or belonging – and more like a pawn in someone else's game.

Expanding on the experiences described by participant 2, others spoke of their own interpretations of chemsex dynamics and how these could sometimes be complicated by the questionable motives of their peers. For example, participant 14 shared that they felt taken advantage of because they were housed and employed, which made them a "target" for others:

> When I was working, I had a lot more money, so I was seen as someone with an apartment and a job, which made me an easier target for people who were homeless or on their last party and looking for a place crash… When someone shows up with a duffel bag, you know their intention is to be there for a long as they possibly can.

A similar point about feeling like a "target" for manipulation by their peers was raised by participant 1, who stated the following about their trust being violated after they opened to somebody:

> Talking gets me into a lot of trouble because I'm a little forthcoming to the wrong people sometimes. I'll start to feel comfortable with someone and start talking about my past history and what I used to do and then that will get used against me.

In addition, others spoke of the concerning practice of some of their peers "taking advantage" of inexperienced chemsex users by unsuspectingly dosing them with chems or by administering

higher doses of chems that exceeded that person's tolerance level, purely for their own benefit. Considering the implicit trust participants had for others within their circles, this occurrence could be particularly jarring at times to both experience and witness. On this, participants stated:

> I'm the opposite of so many people that party. A bunch of them are like predators – going after young guys and giving them drugs without them knowing. They take advantage of people. – P12

> There are those within the community that could give [chems] to you without you even knowing what it is because they want to have a certain kind of sex with you because its more pleasurable for them. – P3

> There're people that know better allowing these young guys to be in this space and not looking out for them. This kid hasn't done T for very long and you're gonna put lots of Tina or crystal in his shot? That's a pretty high that you don't come down from. You don't go from needles to snorting a little bit; it only increases. So, getting this young person high is you being selfish… And I might go along with it, but there's a guilt that comes with it. – P4

As gleaned from these statements, participants were emotionally affected by their experiences with the some of the more manipulative dynamics that found their way into chemsex circles. In many instances, these encounters served to expose the intricacies of their communities – in that, the nature (or urgency) of chem use, could sometimes make even the most well-intentioned person somewhat "selfish" when their own needs (or pleasure) were on the line. This point also extended to the participants, who despite their own personal values and convictions, sometimes found themselves engaging in similar manipulative tactics – either directly by "using sex as a currency" when they did not have drugs, or indirectly by "going along with" peers they knew were deliberately giving novice users formulations or doses of chems that exceeded their limits. This was not to say that chemsex dynamics were inherently self-serving, but rather that participants sometimes found themselves as a participant or witness to situations that were external to them and that may have caused them "guilt", but in many ways, felt outside of their cognition or control.

Theme two is concluded with a reflection on the complex nature of chemsex communities, unveiling both the *Interiority and Exteriority* of its dimensions. As noted from this exploration, these forces were neither linear nor binary, but rather, flowed with different intensities depending on

participants' position in a given moment in time or within a given connection. Indeed, these participants described how they were able to connect, disconnect, and reconnect with their community (and communities) in various waves and as different versions of themselves. Within these permutations, participants could be seen floating from acceptance to alienation to pleasure to pain to tension to euphoria all at once – and not at all – with each dynamic and relation creating new opportunities for other dynamics and relations. In other words, the forces that made them feel disconnected were the same ones that made them feel connected because they knew they were part of a shared experience; a community; a subculture – and that they belonged.

Theme Three: Imperceptibility

The final theme focuses more directly on the effect of subcultural group norms on health and risk-taking practices. Specifically, it explores participants' engagement in chemsex over time and how they evolved with their world until they seamlessly disappeared into it – i.e., they became *imperceptible*[155]. In the Deleuzian sense, this *imperceptibility* did not signify invisibility, rather, it explored participants' movement beyond a fixed identity; a becoming in which the self dissolved into the multiplicities and flows that constituted life itself[155,212]. These men were no longer social outcasts or outsiders. They were no longer marked by inscriptions (or social designations) of being an HIV positive person, or a promiscuous person, or a risky person. Instead of standing outside of their world looking in, they had shed the bounds of these imposed labels and became totally immersed into the flows of their chemsex subculture, always in motion, always in process.

This world was not, however, static or fixed (i.e., it was neither scheduled nor pre-determined)[155,212]. Within this state of *imperceptibility*, the flows of desire were uncovered, unresolved, so that multiplicities could continually propel throughout the world they created (flow in, flow out, open, close)[155,212]. As part of this position, participants discussed the evolution of their engagement in chemsex and the coinciding impact on their experiences within the chimera they had created, including the ways in which they supported themselves and their peers. This theme concludes with a final reflection from participants on their lived realities of chemsex engagement.

All is in flux

As has been unveiled thus far, chemsex participation was rife with possibilities for change: from partners, to dynamics, to sexual pleasures; nothing remained the same for long, including their substance use practices. Indeed, all of the participants discussed how their engagement in the *chemical* aspect of chemsex intensified to varying degrees over time – with some noting differences in use depending on certain situations or moods and others noting a change in use from a weekend or casual affair to a more routine (or daily) habit. For participant 3, for example, chem use was a constant, but still something they felt they could separate from their daily life:

> I can go maybe the whole day and probably just smoke it once a day, but if somebody comes over who knows that I do it and they're comfortable with me doing it in front of them, I might do a little more.

For others, their experience with chem use was slightly more gradual – where they noticed a shift (and coinciding increase) in their use or a change in how they felt without that substance:

> When I started using chems, it was once or twice a month. Then it changed to weekly, and then it increased more and more, until I couldn't resist anymore. It got to the point where I was having trouble trying to stop, but it was too late for me. – P5

> At first, I didn't even notice the comedown – I would just kind of drift off. That was the tricky part though: I could go all night and go to work the next day and get amazing results. It doesn't go that way for me now. – P4

> A couple of months ago, I smoked Fentanyl for the first time, and I've overdosed twice on it already. I don't really understand my addiction or why I engage in that? It's not really something that I feel addicted to, but if I know I can get it from somewhere, I'm more likely to buy it because it gives me that really fucked up feeling that meth used to make me feel. – P1

Building on notions of "addiction", other participants discussed how components of their brain chemistry (or "addictive personalities") acted as triggers for their substance use – with stimulant use serving as a particular catalyst for their engagement in chemsex and ongoing chem use:

> I've always had problems with addiction. It was anorexia and bulimia for years, then it went to weed for a year, then an old manager at work gave me Percocet. That was the first hard drug I ever tried. Then I got into coke for years and then meth, but meth was just so much worse in every way. – P2

> I didn't have an addictive personality when I was younger… until I met cocaine and all of a sudden, it triggered something in me, and I couldn't shake it… I was really of

> the mindset that I couldn't become addicted, which made it so much harder for me to stop because it didn't make sense to me for the longest time. And then, it became a major problem. – P9

As reflected in these statements, participants noted gradual changes in their substance use over time. These were not necessarily a signal of "feel[ing] addicted" but rather, an adjustment in their lived experiences of use, such as a change in tolerance (e.g., looking for that "really fucked up feeling") or a change in their pattern of use (e.g., "it increased more and more" to "smoking [every]day"). The "tricky part" about this was that these changes were indistinguishable over time: they might have had some awareness, but at the same time, were not fully cognizant of its presence or effect – i.e., it did not feel "problem[atic]" or "trouble[some]" to them. In becoming *imperceptible* (fully immersed in chemsex subcultures), they remarked in different ways that this revolution of use was difficult to "stop" or reduce both because their use and preferences for use had evolved and because of the way the substances "made them feel" while they were on them. This point is further reinforced in narratives raised in the previous theme – specifically, that some GBMSM like to get high and have sex, which is not an inherently problematic penchant. Thus, while most noticed a change in the pattern or intensity of their use, it seemed to be enveloped within the collective *imperceptibility* of sexual and chemical excess in chemsex subcultures.

With these changing patterns of use, also came a change in perspective for participants in terms of their substance use and engagement in chemsex – i.e., a turning point in how chems made them *feel*, both physically and emotionally. The most notable aspect of these changes in perspectives seemed to relate to the effect of chem use on their overall mental health, with many participants expressing their use had become more complicated (but not necessarily problematic) over time and others feeling dejected over their current state of being. Among participants, these perspectives also served as a catalyst for their ongoing observations about chemsex and the influence these networks, practices, and norms had on their behaviours and wellbeing.

For some participants, turning points related to a perceived loss of productivity because they felt their time and energy was all-consumed in chemsex. Most commonly, this presented as

a preoccupation with the processes *surrounding* chemsex as opposed to the actual act itself. Indeed, several participants spoke of the impact of 'doomscrolling' – that is, endlessly scouring their applications in search of a potential partner to engage with. While seemingly unproblematic, participants noted that the effects of crystal meth on their cognition (i.e., heightened energy, focus, and arousal) combined with the plethora of potential partners online, led them to become hyper-fixated on an (often fruitless) objective of trying to locate that one perfect person to spend the night with, so much so, that participants would find entire blocks of time had passed. For example:

> At my age, I'm not really trying to look for anybody on the internet. I've spent hours on that looking for people I don't even like. For the kids, that's fine. But for me, I just feel like I've wasted hours of my life. – P4

> The setup of these apps is hard when you're high because you think there might be this or there might be this, so you can spend hours and hours and hours on it. Same as watching porn. You keep thinking there's going to be a better clip, there's going to be a better clip – and then, half of the day is gone. I don't know how to mitigate just how much time has been wasted where you cannot do other things. – P3

Participant 14 noted an added layer to this perceived loss of productivity related to issues with erectile dysfunction, which could often occur as a secondary effect of crystal meth use. For this participant, chem use would trigger a hyper-fixation on "getting off" – but an inability to ejaculate, which only served to amplify the revolution. On this experience, participant 14 stated the following:

> For a lot of people there's issues of erectile dysfunction and getting off when you're using meth… Sometimes, you go days, and you haven't gotten off. So, what do you do? You keep going because you think there's going be that high that's going to get you off, but it doesn't…

As a result of their frustration with not being able to "get off", participant 14 noted they sometimes found themselves taking additional risks they might not have otherwise simply so they could finish:

> Sometimes, if I've been partying all week and haven't gotten off, then I also might give into somebody I wouldn't necessarily.

For these participants, perspectives of risk-taking behaviours and health were not assessed through physical or clinical measurements – but instead, related to a perceived loss of productivity. Specifically, because they had "wasted so much time" looking for something they were never going to find and could not find a way to "mitigate" their preoccupations. In the context

of these men being actively engaged in chemsex, this sentiment about “wasting hours” or “going days” engaged in the same behaviour of looking for partners or looking for a way to “get off” was not likely an isolated event. In other words, this perceived loss of productivity was remarkable for participants when they considered just how many days or weeks were consumed in this segment of the chemsex process (remember: they still had not even engaged with a partner at this point). Thus, it seemed that participants were not necessarily concerned about a loss of time in their day or week but perhaps, were mourning a loss of control over, or time lost in, their lives.

Building on the turning points of chemsex engagement, participants also spoke of changes they witnessed in their peers and partners within these circles over time. These sentiments had a notable difference in tone from the dimensions of *Interiority/Exteriority* that were raised in the preceding theme, transitioning from descriptions of subcultural norms to subcultural deviations. Specifically, participants remarked on the health and risk-taking practices of others and the impact this had on their own perceptions of engagement in chemsex. For most, these observations were external – in that, participants saw differences in others, but not necessarily in themselves. They did, however, appear to be impactful enough for them to take pause and reflect upon. Related to the changes they had observed in others, participants shared the following reflections:

> I try to manage my partner as much as possible, but when he’s paranoid, he’s in a totally different headspace. One of the big problems is that doesn’t sleep. He’ll stay up all night working the pipes while I go to bed. The combination of sleep deprivation and drug use is almost impossible to deal with. – P10

> I’ve seen people completely lose touch with reality. They have psychosis. They’re engaging in risky behaviour. They have a total disregard for social norms where they decide to masturbate in public. I had somebody almost walk out my balcony door thinking they could walk right out on the fifth floor. – P3

> One of my friends hadn’t slept for days and days and days. He was in my apartment talking about drinking bleach and tried to commit suicide, but there was nothing anyone could do for him. – P4

For these participants, witnessing their partners or friends in jeopardy marked a turning point in their perceptions of chemsex. While their experiences differed somewhat, there was a notable emotional overlap in their descriptions of watching people close to them “lose touch with reality”

or experience pain (e.g., “working the pipes all night”, not sleeping, trying to “commit suicide”, excessive “paranoia”). Similarly, there was an undertone of helplessness in these moments, with participants feeling like these situations were “impossible to deal with” or that “nothing could [be done]” to help them – aside from waiting for the crisis to resolve (i.e., following sleep and a comedown). While not explicitly stated by participants, bearing witness to these moments of pain without being able to intervene could also impact their own mental health, particularly with these situations involving close friends or long-term partners, the effect of which is often overlooked.

A final turning point for some participants related to expressed feelings of shame or guilt over their involvement in chemsex. These emotions were not about dependency or wanting or needing to change, but rather, were a genuine expression of their perspectives of use over time. For participant 2, their turning point came after a period away from use, during which they reflected on the impact crystal meth had on their relationships and personal wellbeing, stating:

> It’s fun for the first little bit – meeting people and having sex is fun, but after a while it just becomes so all consuming… I can really only think of the bad stuff, and I guess that’s just because it’s been so bad for so long that the getting, finding, and using of the drug itself became so much more fun than anything I would do on it.

They also added how feelings of “shame” shaped this change in perspectives, noting:

> There’s a lot of shame in the drug use and there’s a lot of shame in the sexual partners that people have and everything that goes with it. It’s just a lot of shame-based hiding or shame-based fear.

Similar perspectives were shared by other participants who discussed how the “fun” parts that had initially drawn them into chemsex subcultures seemingly changed as their involvement in the *chemical* aspects of this practice changed as well. On this point, participants stated the following:

> People will do meth for the sex. They’ll enjoy the sex and then they’ll try and replicate it. It’s like a downward spiral as soon as you try it. – P1

> It’s depressing to spend all our money and not have a few dollars left over… it all gets used up right after we get paid. You can’t stop when the money is there. – P10

> I know for a fact that it’s bad for me, but I don’t see it because most times, I don’t really do anything that could gauge how much I’ve lost. – P3

> As soon as I'm done with the drugs… as soon as I get that relief, I start to think 'Why did I do this? I shouldn't have done that'. – P5

Participant 4 elaborated by sharing what a "downward spiral" felt like from their own experience and perspective – specifically noting the emotional effect of the repeating revolutions of chemsex:

> I gyped myself of a life… I knew what the risks were. I knew that this could get out of control and I chose to do it anyways. I don't care how high you get because at one point, you start to come down – and as soon as I come down, it's like, 'Oh, here we go again. I did it again'… I would have been better off just not to do the whole thing and not have that guilt or shame, but I tend to get stuck in this cycle and before I know it, I'm like, 'Let's get high. Let's do what we're gonna do'.

Combined, these statements from participants highlight a simple, yet important reminder: chemsex was neither problematic, nor was it always "fun" or "enjoy[able]". While all actively participated to varying degrees, it did not always make them feel good or make them feel good about themselves – i.e., it sometimes left them with feelings of "guilt", "shame", "depress[ion]" or struggling to "gauge how much [they] had lost". Thus, it seemed that in becoming *imperceptible*, participants had become enmeshed in a world where they felt "stuck in a cycle" of "trying to replicate" or find a particular sense of "enjoyment" because that's what they "were gonna do".

Forced reflections

Building on these turning points, participants delved further into some of the lived realities of chemsex engagement and the effect this had on their personal, physical, and mental health – i.e., forced reflections. As with most dimensions of chemsex, these forced reflections varied between participants and within and around various moments in time – but were only possible for them to see once they had become *imperceptible*. That is, they had shed the components of themselves that made them a subject in their former life to become one with their own world (the subculture they made and belonged to). In many ways, these views presented as a mirror-like image: with participants only being able to replicate these observations by looking toward themselves and the world (subculture) they belonged to. For some, these forced reflections related to a state of mind (e.g., feelings of self-reproach); while for others, these related more to a state of being, such as changes in coping, risk-taking practices, dependency, and the impact of

their subcultural networks on their ongoing engagement. What was not varied, however, was the fact that participants were not alone in their reflections – in that, despite any hardships they endured, they felt an ongoing connection to their peers and their chemsex community.

Hindsight. Among participants, sentiments of self-reproach about engagement in chemsex most related to aspects of their lives they wished could have gone, or that they could have done, differently. Although discussed in relation to their engagement in chemsex, these reflections seemed to follow the idiom of "the grass is greener on the other side" – that is, they seemed to convey the perception that participants felt that because they were involved in chemsex, other peoples' situations were better than their own or that their suffering was different (regardless of if these 'others' were in the scene or not). On this, participants shared the following:

> If I'd known I was going to live more than 3 years [after I was diagnosed with HIV], I would have done things a lot differently. I would have gone to class and not taken out all of those loans. Maybe I'd be something now… I don't regret it though. – P14
>
> [Chems] really affect my work life. I can't count how many times I've been sacked from my job just because of chemsex. That really affects me negatively. – P5
>
> Committing to this lifestyle, I forfeited having kids, a family, a marriage. – P4
>
> The really really low point of it is that other things don't matter until you get done what you're doing now. I'm embarrassed to say this, but I've missed flights, I've forgotten events… I didn't even get in touch with family over the holidays because you're always able to come up with a reason or excuse – you know, 'there's always tomorrow'. – P3

For these participants, feelings of self-reproach were manifested in aspects of their lives that they wished they could have done "differently" – or perhaps, felt they *ought to* have done differently – which were experienced by some as "low points" of chemsex engagement. As aptly stated by participant 14, there was "[no] regret" over what had occurred in their lives, but perhaps instead, a sense of disappointment over how their "commit[ment] to this lifestyle" impacted how they saw their own contributions to an exterior life – not acknowledging the lives they had within their world.

Other participants experienced aspects of self-reproach more specific to living with HIV – feeling as though chemsex had been the catalyst for their diagnosis. Related to this, they stated:

> My drug use affected me because I had sex with other people who I was not meant to… HIV was not something I expected of myself and discovering that I was diagnosed with made my drug use worse. – P6

> It's the whole mental attitude of '[HIV] will never [happen to] me' because I'd done [chemsex] so many times that I thought I'd be fine. I know very well now, that's not how it works because that's not how it worked out for me. – P2

For these men, forced reflections of chemsex engagement were layered by ongoing struggles with their HIV diagnosis. While they both acknowledged and accepted being HIV positive, there was still a sense of mourning in these experiences, as they reflected on how certain practices (e.g., "having sex with people that I was not meant to") or decisions ("I've done it so many times that I thought I'd be fine") seemed to have led them to their particular position on chemsex.

Lastly, for participants 9 and 10, a couple who had been in a relationship for over a decade and were interviewed together, forced reflections related to the effect of chemsex on aspects of their personality – and by extension, their relationship dynamics over time, stating:

> His being depressed has an effect on me. You can't be in love with someone and watch them suffer. But when it comes to doing drugs, I become extremely, aggressively self-centered. And it tortures me because it affects him and that's not what I want to see. I don't want the reality and the fantasy. – P9

> You have to understand that I'm to blame for everything in his life. *He* is stressful in his life, but he can't see that. My God! I won't take all the blame. I refuse to take all the blame, by the way. But I let him go on because it sometimes feels impossible not to. – P10

For these participants, feelings of self-reproach seemed to have become completely enmeshed in multiple aspects of their relationship because chemsex was a primary focus of their shared lives. Both talked about separate "stress[ors]" they experienced (e.g., "being depressed" or "extremely self-centered") which were internally experienced as feelings of guilt ("tortures me because it affects him") or sadness ("I refuse to take all the blame"). Thus, while they had very apparent empathy and compassion for one another, both seemed to struggle with forced reflections of the "reality" that such strains might have played on their relationship dynamic.

In addition to feelings of self-reproach, participants engaged in forced reflections on how their coping changed over time with chem use. Such changes were noted to have affected

multiple aspects of their wellbeing, which primarily stemmed from the emotional effect of personal traumas they had endured or underlying mood disorders (e.g., anxiety, loneliness) and feelings of isolation – both from others and from a sense of self. For many participants, these emotions were continually flowing beneath the surface, but in being *imperceptible* (i.e., operating in a world completely external to the one they previously knew), they found themselves in a multiplicity of many – and in these forms, they could use chemsex (chemicals, sex, and their community) to mitigate the negative experiences or thoughts that might have controlled them outside this world.

Hardships. Related to personal traumas, participants reflected on some of the experiences they endured, which seemed to have played a formative role in their engagement in chemsex. For many, the disquieting experiences of their past seemed to operate in the periphery of their minds – i.e., not fully absorbed into their consciousness yet still omni-present in the descriptions of their actions, behaviours, and mindset. For example, participant 4 shared:

> After I started using and had HIV, I started to realize they could be related to all of the issues that I had with my parents and my family. Highly narcissistic parents. Drug users. Abandonment. The choices of partners that I make. Daddy issues – my father was very abusive and beat up on my mom… All of that came to light after I had HIV and was addicted to drugs. So, now I'm realizing the layers of shit that I have to work through… I call it my onion.

Similar narratives of the effects of childhood traumas on health and risk were shared by participant 2, who spoke about how prior issues of "abandonment" were amplified within chemsex circles:

> Meth use brought back all of my problems from when I was a kid. My dad hung himself when I was young, so I had this whole abandonment thing with father figures. So that goes a lot into sexual activity and who I would sleep with. And if someone treated me badly, then I was fine with that because that's what I was used to.
>
> And then, with my ex-boyfriend and how chaotic and abusive – but also so codependent – that relationship became. It brought back all of the things as a kid that I was running from and made them exponentially worse… I eventually had to move back home because I was going to die. There was no doubt about that.

Participant 12 also described a "layer[ed]" effect to their engagement in chemsex, noting a series of traumas over a short period of time that became compounded in the context of their use:

> Right after my mom died, I had this whole thing with my siblings who, at the lowest point in my life, threw me out… I had my ex take me to court… and eventually I lost

> my capability to make decisions for myself… and all of that was going on at the same time with the drugs and everything too.
>
> There was a point where suicide actually became a rational alternative in my head… but I always try to find a way to work through it. Even if today is hell, six months from now, you'll be laughing about it.

Other participants described their experiences with trauma and the role of chemsex as follows:

> I started using around the time I got diagnosed and I think a lot of it stems from being bullied a lot at school… it just took me away from all of my problems and headaches and all the bullshit I was getting from people. – P7
>
> My partner, who we used to do the exact same thing, committed suicide four years ago. So since then, things have been really fucked up. And then after he died, I got diagnosed with hep C and it just… my world was crumbling. I had to do something or give up altogether. – P8

Among these participants, prior experiences of trauma coupled with the effects of chem use seemed to have played a powerful role on their coping. As can be gleaned from these narratives, ongoing engagement in chemsex appeared to have impacted the mental health and wellbeing of these participants over time, with many feeling like death, "suicide", or "giving up altogether" were serious considerations at a given point. While trauma and substance use are not implied to function synergistically, it was notable to witness participants reflect on how their unresolved mental health issues were amplified in the context of their use - likely because, in becoming *imperceptible*, the "things… [they] had been running from" had also become indistinguishable. Notable in these statements from participants though, was the amount of hope they maintained in the face of some the seemingly hopeless situations they endured. Indeed, while the details of their experiences and depth of their hardships varied, undertones of resiliency also shone through these stories – e.g., "realizing all of the layers I have to work through", "I always find a way to work through it", "I had to do something" – because they knew they were not alone in their world.

Coping. Expanding on these forced reflections, participants considered how changes in their mood affected their coping and their engagement in chemsex over time. Among several participants, these sentiments appeared to be influenced by underlying mood disorders, such as loneliness, anxiety, or feelings of isolation from others and from a sense of self – which became

seemingly amplified in the context of their entrenchment in chemsex subcultures. In other words, these participants shared how they sometimes used chemsex (i.e., substances, sexual contact, community connection) as a means of managing their moods. Yet beyond a mechanism of emotional regulation, coping also marked the beginning of a subtle transformation of the self. What began as an effort to manage distress opened the possibility for a more fluid subjectivity that, over time, moved toward *imperceptibility*. For example, participants stated the following:

> There're times that I use just to stabilize whatever is going on with me at the time. It helps [my mood], I think. – P8
>
> I deal with depression, esteem stuff, body image stuff… I tried antidepressants but they didn't work for me, so I used to get high as a compensation in my head… That's where I was exploring more and more with different substances trying to find what gave me the confidence I was looking for. Because I was more invested in that, I think in my mind I believed [the antidepressants] didn't work. – P11
>
> Meth addiction is just a byproduct of mental health. It helps with my social anxiety. It's still fixing something, right? It's still anxiety. It's still a mental health issue. – P1
>
> I'd go out and have sex with multiple people and then I'd feel so lonely after because I didn't have that connection. I think that's one of the downfalls with chemsex too. While you're in that moment people will say *anything* – they're in love with you, they want to move in, all of these things they wanna do. And then when it's over, you're not just empty, you're more emotional than you were before. – P14

For these participants, the use of crystal meth and other substances was noted to provide a sense of "compensation" or "stabiliz[ation]" from moments of "anxiety" and "loneliness" that sometimes occupied their minds. For them, chemsex involved much more than just opportunities for substance use or sexual encounters – it also gave them to "confidence" to forge "connections" with other people, which in those moments, provided a meaningful source of comfort. As was noted though, where these connections ended, they were reconnected by feelings of "emptiness", suggesting that chemsex revolutions might be "more emotional[ly]" driven than is often assumed. Indeed, despite the words or phrasing participants used to capture their experiences, what seemed to fuel these sentiments may have related more to the realization that the connectedness they felt with and to others could at times feel opportunistic and superficial.

Finally, participants reflected on how their coping was affected by feelings of isolation in the context of chemsex engagement. Most commonly, these feelings manifested as despondency over certain aspects of their lives, which had a notable impact on their overall mental health. These statements, however, were not specific to chem use – but rather, touched on aspects surrounding their participation in chemsex subcultures. On this, participants shared the following:

> My mental health is poor. I want to quit, but [my partner] absolutely can't. And all of our money goes into it. I'm very depressed, and anxious, and tired all the time. – P10
>
> I don't even understand myself. I put all of my energy into chemsex more than I would not on these drugs… Why am I risking my life? What if I die in this process? – P5
>
> I had my Pride flag, and I was advocating for queer this and that and now, I don't feel connected to anything… I don't know if its because of the HIV or the drug use, but I've recoiled from a lot of things – not just the community. – P4
>
> My mental health was worse, and my substance use was worse… I was in so much pain dealing with all these things and being rejected and pushed aside… and then I'd relapse because I figured, what's the point? – P14

While chemsex subcultures were spaces that united different men from different backgrounds, it seemed that in the context of ongoing use and changing mental health status, these could also feel like somewhat isolating spaces for the participants. It was not that they felt physically alone – but perhaps more emotionally "[dis]connected" and "pushed aside" from a sense of self in certain moments. As a result of feeling isolated, participants also found themselves becoming more entrenched in chemsex activities (e.g., "want[ing to] quit" but "can't", "relaps[ing]", put[ing] all of [their] energy into it") because they did not want to completely "recoil" from their community or they might risk them becoming something else – i.e., that they would no longer be *imperceptible* in their world. In other words, they may have felt isolated from themselves (their bodies, minds, spirits), but they did not want to become isolated from the people they knew and who knew them.

Risk. Building on these forced reflections, participants also discussed how chemsex affected their perceptions of risk and their risk practices within these spaces. Notably, when participants were asked to what extent they felt chemsex to be a "risky activity", the sincerity of their responses felt more contrived than their descriptions of the risks that surrounded chemsex

activities and participation – that is to say, it appeared they were reciting social perceptions of risk as opposed to genuine expressions of what risk felt like *to them*. Nevertheless, their statements provide some insights into an initial understanding of perceptions of risk related to chemsex.

Some participants described chemsex-specific risks in a more general context, noting:

> Of course, its risky… There's STIs and you know, you trust your products and your dealer, but maybe the other person got stuff from *his* dealer. – P10

> There is the risk of being arrested. There's the risk that you could end your employment, your housing. There's the risk of all the other STIs. There's the risk of damage you can do to your body as a result: people have strokes and seizures and excessive dehydration. There're so many risks, but you know, it's like anything. – P14

As noted from these more general descriptions, participants were seemingly aware of the publicized health risks that could potentially be related to this practice, but these did not appear to hold any true sense of meaning for how these participants constructed risk for themselves.

Other participants spoke of their perceived risks in terms of substance use and the possible unintended harms that could arise from aspects related to use itself or from the factors surrounding use (e.g., difficult to anticipate how other people might act or behave while high). For example, some participants spoke about their concerns with the possibility of overdose from contaminated drug supply if they used substances brought by somebody outside of their group:

> Someone else will bring something over and because they already have it, you're not gonna… stop and say, 'I'll make my own phone call, thanks'. Why would I do that when they've just spent $200 [on drugs]? But you don't know what's in that. You don't know if its Fentanyl. – P9

> I only use my own drugs. If you're going to use somebody else's drugs, you don't know what they have. If you go to a party, you don't know who everybody is. You may have somebody who gets a little psychotic or overdoses on stuff because they think they can handle more than they can. – P13

Others spoke about the potential risks associated with the secondary effects of crystal meth use:

> It's somewhat risky because its drugs, you know? And it's risky to your mental health. It always has some kind of side effect that is bad for me. – P6

> I was aware of the risks, and I experienced the risks as well. Like when you're on a bad ride or when you witness other people overdose or go through stuff. – P11

In addition, some participants spoke of the potential risks they experienced adjacent to chemsex engagement. For these participants, risk related to the possible scenarios that could arise when meeting new partners or hosting these partners in their personal homes. On this, they stated:

> It's probably a bad thing me bringing some of these people into my apartment, but that's secondary once I know I wanna get high and I wanna be with them. – P8

> Being in any kind of situation where something could go wrong was a risk… In most cases, it would be fine. Things would be nice. But if someone was weird then you'd have something to talk about. – P2

Finally, participants spoke of perceptions of risk in terms of some of the sexual dynamics of chemsex – particularly with respect to the potential for STI acquisition. Related to this, they noted:

> There's never really an opportunity to ask or even use protection, but it tends to be more pleasurable without. I've been in situations where it might even be frowned upon to ask for rubbers… Also, if you're very high, an erection might be difficult to maintain so putting on the rubber can make it worse. – P3

> Before I was doing [chemsex], I would talk people out of my room if they didn't wear a condom. Now, it's like I throw them out if they want to wear one… I became HIV positive solely because of PnP, but I also knew what I was doing at the time. – P12

> People will take the risk no matter what… if you've taken anything during sex, that risk is going to be there because sex has always been a risk. Some people will disagree with me on that because you can practice 'safe sex', but having sex with a condom? No way. – P7

> Sometimes in the heat of the moment, I would do stuff that I know is risky, but when you're high, you're not going to understand that its risky… So, sometimes you decide not to use a condom, and a lot of stuff can happen. – P11

Combined, these sentiments highlight that the potential risk (and the awareness of such potential) may have been omnipresent in chemsex circles – but may not have been an urgent risk for participants to mitigate. This point is not intended to imply participants had a disregard for their health or wellbeing or that they didn't consider the possibility of risk in their activities. Rather, these statements highlight that in becoming *imperceptible*, participants had established their own means of both perceiving and mitigating risk in their activities – ones that differed from socio-medical fixations of risk. Indeed, participants had firsthand "experience of [what those] risks" entailed: all had been diagnosed with HIV, many had prior STIs, and some had witnessed or

personally experienced “bad… effects” or even “overdose[d]” from drugs. Yet through various means, employed measures to ensure their own safety in their spaces, such as “only us[ing their] own drugs” or assessing conditions for condom use “feels more pleasurable” or “might make it worse” because for them, “that risk was always going to be there”.

Active addiction. Expanding further on narratives of forced reflections, participants discussed their perceptions of addiction in the context of both their chem use and their ongoing engagement in chemsex. These statements were indicative of a reflection in a moment of time in which they were *imperceptible* – they were part of a world that they did not fully comprehend they were in – though, likely fluctuated within various movements, connections, and states of being (shifting intensities, affects, potentials). In these moments, participants spoke candidly about their current use, with many describing a weight (manifested as physical, emotional, and personal strain) of chemsex engagement that carried over time. In many ways, this weight appeared to straddle the line between molar designations that pathologize (label, define) dependency or addiction (as an ‘addict’). However, in the context of *imperceptibility*, such aspects could also be viewed as a deterritorialized (free) form of movement through chemsex subcultures. For some, these points related to a short-term reflection on use, noting what they saw in front of them, but feeling unable to reconcile these in any sort of future tense. For example, participant 2 described:

> Suddenly, everything became a trigger for me: loneliness was a trigger, then anger was a trigger, then happiness. I could use anything as a trigger realistically. Eventually, I was doing it everyday, and I didn’t need a trigger for anything. It was just more or less my daily habit… It’s so hard to stop because it takes your life away. There’s a very definitive line between the life I had before and after.

Similar sentiments were raised by participant 1, who reflected on aspects of use in terms of their “active addiction”, remarking this structure of *imperceptibility* was all they really knew:

> I don’t even call it partying anymore. I just call it active addiction. I can’t even wake up without smoking something… I wake up everyday basically saying, I need to quit this. I wanna stop all this shit. But then, I couldn’t go to work and then I’d have no house and all of this other shit. I’m not sure if I ever would be able to completely quit.

Other participants described their transitory perspectives on addiction as follows, stating:

> I don't really understand addiction, but the word is so powerful. When you get addicted to a substance, it's really hard to part from that. I would say the biggest barrier for me is that I'm not sure I can still function without the use of drugs… I'm so addicted to this substance that its really hard for me to stay away from it. – P5

> Part of the problem with crack is that you're chasing a high that you're never going to come back from. You get a certain euphoria the first time you toke. The very first time. But that feeling was from *years ago*. Whatever feeling you're getting now is not a lasting one. – P9

> Somebody once told me, 'You've got to be careful with Tina'. Because unlike anything else, it creeps up on you – so much that you wouldn't even notice it. And when you do know, its too late. Once you've fallen off the cliff, you can't get back… I have no choice but to keep the addiction going even though it affects every aspect of my life: my relationships, my day-to-day living. – P3

For these participants, reflections on addiction forced them to consider the "triggers" or aspects of their use that were at the forefront. All who spoke, shared how they could see a version of who they were in front of themselves, but they had reached a point of *imperceptibility* (near invisibility) that they no could no longer recognize who that person was - i.e., "there was definitive line between the life [they] had before and after". In short, aspects of addiction seemed to have had a "powerful" impact on the participants. Despite the impact this practice reportedly had on their ability to "function" or their "day-to-day living", they felt they "could not get back… [off] the cliff" – likely because chemsex consumed "every aspect of [their] lives"; it "took their lives away".

Other participants seemed to view addiction as a past-formation. For these men, it was as though they had experienced multiple multiplicities, constructing and reconstructing in the strata and now saw themselves as a free-floating assemblage waiting to be taken up as something new. From this perspective, participants spoke as if they were on the outside looking in: watching themselves encircled in world in which they were living, breathing, functioning, thriving, but unable to step outside of because they had faded into the confines of the world they had created. Related to these extrinsic views of addiction, participants reflected by stating the following:

> I knew the risk and honestly, it's kinda fucked up. Its counterproductive to living life, you know? Especially after over ten years of use. All for something that I was just going to try and see what all of the hype was about. – P4

> If you get really involved in this life, it's harder because it is addictive – whether you like it or not. Especially when you get used to the sexual experience when you're on this buzz… I would see the difference in the experience itself, which I guess is the underlying later of addictiveness to it. – P11

> If I could go back in time and never start doing drugs, to have known different ways to relieve stress in a positive way, I'd do it. I think of all of the money I've wasted, all of the friendships that have dissolved because of it. There're tons of problems. – P8

As can be gleaned from these statements, some participants viewed addiction in the former; as a version of themselves in the past-tense. While they were still active participants in chemsex subcultures, it was no longer a place they frequented (e.g., wanted to "see what the hype was about"), but rather, it was an active state of being; they had become "really involved in this life". While they all described varying degrees of "problems" associated with their use, such as "wasted money", "dissolved friendships", "addictiveness", or chems being "counterproductive to living", they were still in fact *living* – but as animate free flowing organic forms in the chemsex underworld. These self-described "problems" (fixed identities, social classifications) may not have truly been problematic because they were embedded as a cultural expectation. Upon reflection, these men could describe these obstacles in detail, but in the day-to-day operations of the chemsex underworld, these felt more like norms than exceptions because substance use was part of the fluidity of chemsex subcultures; it was a mode of *imperceptibility*.

Peer influences. As a last point of forced reflections, participants discussed the influence of their peers and networks on their ongoing engagement in chemsex. These sentiments did not suggest 'peer pressure' or participants feeling forced to use drugs. Moreover, they were not discussed as judgements or feelings of separation from other people in their circle. Rather, this reflection was more indicative of the intricate dynamics of chemsex subcultures, such that participants' lives (e.g., their thoughts, activities, friends, and relationships) were so heavily enmeshed in chemsex subcultures that they found it difficult to separate themselves from others. In other words, their position within the flow of chemsex subcultures kept them intrinsically connected to others. Related to the role of their peers, participants discussed the following:

> We've tried to cut back, but it's a lot of talk when we don't have any money. But when we do have money, there's no more talking… During a different period of time, I took some time away and got myself sane, but when I came back, [my partner] was still using, so it makes it really difficult… I can quit, but he can't. – P10

> The influence of my peer group is affecting me more and more. I tried cutting it out for three months, but it was really hard because of my group of friends is still in it… so, I just couldn't resist. I needed to go back. – P5

> I had gone 5 ½ months sober and the day before my sister's wedding, my ex was like, 'I'm gonna go out and get meth now'. And then he left. And because of that, I also went out and got meth. It started that addiction all over again. – P1

For participant 11, who was born in Western Asia, chemsex networks became a place of acceptance and represented a semblance of a family (in the absence of theirs being present):

> I don't have any family here, so my social group was through these networks: PnPs and sex parties… At the beginning, [my use] was definitely not [easy to control] because that was the only way to be accepted.

For participant 2, substance use became intertwined within the relationship dynamics they had with a romantic partner, describing a cycling of "vindictive" behaviour that fed their ongoing use:

> My relationship started becoming more abusive and it brought back a lot of my insecurities of being abandoned… The drugs brought me closer to him. He would go off and do them. So, then I would do them kind of in a way to please him. And he would run away and sleep with other people, so I would go and do the same. It became a vindictive chaos pattern.

At first glance, the statements from some of these participants reflect a desire to "quit" or "cut out" their use – but seemingly felt unable to do so in the context of their connection to their peer group or romantic partners. These statements, however, are not solely related to "getting sane" or "sober". Rather, their tone suggests that participants were grappling with an internal tension over how to change the "pattern" of the revolution they were caught in because their world (their whole existence) was so tightly encapsulated within the chemsex scene. It would seem as though, they had become so *imperceptible* they were now part of a new regime: a "chaos pattern" in which they were consciously living and actively participating but could not get the revolutions to stop.

Re-formation

Despite the somewhat inauspicious nature of participants' forced reflections, underlying tones of connectivity and communal wellbeing also radiated through their narratives. Indeed, in the context of some of their self-described challenges with substance use, mental health, and chronic disease management (with some participants reporting being engaged in HIV treatment and others not), these participants held the health and safety of themselves and their peers as an imperative within chemsex circles. Such sentiments were observed in the descriptions of the various strategies these participants employed to maintain aspects of their wellbeing in the context of chem use, including individual (or person-specific), self-management, personal protection, and harm reduction approaches. Moreover, these also highlight an additional perspective about the effect of chemsex group norms on health and risk-taking behaviours.

HIV care. Related to HIV treatment, participants reported differing modes of engagement in care (ranging from complete to partial to none) and spoke about how such care could be impacted in the context of their engagement in chemsex. Regardless of their antiretroviral use, follow-ups with HIV care providers, the amount or type of substance they had consumed, or the duration of their last chemsex binge, living with HIV always appeared to be at the forefront of their minds. In other words, despite any unresolved feelings or tensions they might have felt about their diagnosis, they all considered their health living with HIV to be an imperative and approached this care collectively. That is, while HIV (infection, treatment, monitoring), might have been a molar inscription, their (communal) approach to care reflected a flow of health and survival; a subtle movement toward *imperceptibility* or "mak[ing] their world"[155,p.308]. Among those who reported currently being engaged in HIV care, participants spoke of HIV management as follows:

> I'm very stringent with my HIV meds. I take them daily and I've missed maybe three times. – P7

> I have one pill a day for HIV... I have no noticeable side effects. I have an app on my phone that goes off every night and even after 10 years, if I didn't have that app, I'd forget even though it's just that one pill. – P12

> I've never missed any [pills]. If anything, it would be because I don't feel like eating and I need to take mine with some food. – P13

Other participants built on these sentiments, noting how their engagement in HIV treatment had been positively facilitated by changes in medication regimens over time. For example, participant 2, who reported "always being really good with taking my medications at the same time", found a change from oral to injectable medications helped to easy HIV management for them, stating:

> I was always very timely with everything [related to my meds] because it was important. It's a very serious matter. Now, with the injections, it makes it a lot easier for me… because it's only every two months.

Participant 10 (who had been living with HIV for multiple decades and had been initiated early in their diagnosis on an HIV cocktail involving several medications taken throughout the day), found engagement in treatment was impacted by a switch to a once daily single oral medication, stating:

> Having the one pill a day now, is wonderful. It's a hell of a lot easier than trying to remember the complicated schedule of several pills that I used to be on… I just can't follow a regimen. But if it's one pill a day, it's much easier to maintain.

For other participants, engagement in HIV treatment did not always flow as easily as it might have for the foregoing individuals. For example, participant 10, who had earlier described how their engagement in care was facilitated by a switch to a once-daily single tablet formulation, also noted that prior challenges with medication use had affected their health over time, stating:

> For the longest time, I wasn't on HIV treatment. I had AIDS and my [CD4 count] got very low… so low that I was close to death… part of it was the addiction prevented me from remembering and part of it was the schedule itself.

Other participants expanded on some of the complexities they experienced related to both engagement in HIV treatment and participation in chemsex subcultures, stating the following:

> I'd say I'm maybe 60/40 as far as taking my medications. It's orally daily… I'm getting all of these problems with my bladder, which only come up when I'm on it… so that's one of the reasons I sometimes stop. Other times, its because I'm high and I just missed that dosage. – P8

> Sometimes I miss the medication due to chemsex because I don't really think about it. I see the HIV medications negatively while I'm high. They seem useless… It's gotten worse because I miss more and more medications, but I just don't remember them at all while I'm on chems. – P5

> I felt really fucked up trying to keep up with [the medications] because you need to take them at the same time with a meal daily. Well, if you've been out of it and not eating for 3 days, it's not gonna happen with heavy drug use… I feel guilty going for blood tests and collecting up these medications; it's like, what am I really doing? – P4

For these individuals, HIV treatment appeared to be a layered challenge in the ongoing management of their HIV diagnosis – primarily because of the way the medications made them feel. For some, physical side effects, such as "bladder problems" were a barrier; for others, the "complicated schedule" of taking medications "at the same time with a meal" was an issue; and for others, the medications themselves were seen "negatively" as "useless" or as a trigger of "guilt" because in the context of substance use and underlying mental health struggles, taking a daily medication might not have been as easy for some of these participants as it was for others (i.e., *other* participants and *others* outside of their networks). In such circumstances, HIV treatment appeared to represent more of a point of defeat than a form of health protection for these men.

Building on this point, participants explained how engagement in HIV treatment could be affected by chemsex group norms, including the substances they used, the timing of medications relative to their schedules, or how the prioritizations of needs could fluctuate at any given moment. Participant 3, for example, shared how differences in their routines affected their care, stating:

> The medication itself is geared towards a routine. So, it's like in the morning at a certain time, you'll take it. But when you party, there are no routine days. There's no schedule. I could be sleeping at 7:00am and getting up at 10:00pm, so do I take it again? And then the next day, I'm up for two days. That's where the problem comes in. Because the societal 24-hour of the day is not the same day in the party scene.

Participant 11 also noted a similar tendency to occasionally forget their medication dose due to the timing of chemsex parties relative to their typical daily schedule, stating:

> If I've been partying for more than one day, these are the days that I am probably going to miss my pill. But a more than one night session doesn't happen very often.

For other participants, challenges with engagement in HIV treatment more related to their general sense of physical wellbeing – in that, some did not appear to notice a marked difference in their health when they took their medications compared to when they did not. For example, they stated:

> I'd lie to my doctor about taking my pills, but he'd look at my bloodwork and say everything looked fine. He seemed happy with it… There was no difference on paperwork from not taking it and doing drugs. – P4

> You might forget the last time you took it, and you don't wanna take it again within a short period of time, but there's no indication in terms of a change to your health. So, you don't know whether you're in a good situation or a bad situation. – P3

> When I look at my counts and everything, they're not the best, but I feel fine and [my doctor] keeps telling me things are good. I know he wishes I would be totally compliant… he's up on that pedestal, so I try my best to do whatever he says, but I just can't do anymore than 70% at this time. – P8

> The problem with taking meds is that if you don't really need them, then your body has to adjust to them. But if you do need them, things start changing in you. – P9

As noted from these statements, engagement in HIV treatment also seemed to be affected by broader dynamics of healthcare engagement. Specifically, discrepancies arose in terms of how participants prioritized their health while living with HIV compared to how the healthcare system dictated how their health *ought to be* managed – e.g., "[my doctor] is up on that pedestal" or "I know he wishes I'd be totally compliant". While all participants (regardless of their antiretroviral use) reported being affiliated with healthcare providers regarding their HIV, there were marked differences in terms of how perceptions of health operated within the context of *hierarchizations* of health and the context of ongoing participation in chemsex subcultures where the "routine" was simply different than the "societal" schedule. This finding also represents an important consideration related to HIV treatment, in that this group of participants did clearly value their health but perhaps did not find use of daily medications as "routine" or 'intuitive' as healthcare providers might assume – particularly when "daily" represented every day of their lives.

Taking care of themselves and others. As part of their ongoing re-formation into becoming *imperceptible*, participants also discussed the strategies they employed at an individual (person-specific) and group level to maintain the health and wellbeing of themselves and others, including self-management, protective, and harm reduction approaches. While some may have mimicked conventional healthcare methods, they were notably developed and maintained within chemsex subcultures. From the perspective of participants, these strategies represented more

than just a list of recommended prevention practices – they embodied a foundational schematic of group norms and values that shaped what that sub*culture* was to them and for them.

Beginning with individual (or person-specific) approaches, participants spoke of the various strategies they employed to mitigate risk to their physical and mental health in the context of crystal meth use and chemsex engagement. While there was some general overlap in some their methods, these were described as time-tested 'tricks' participants had developed to mitigate physical or mental discomfort in moments that otherwise, felt uncontrollable. For example, some participants described being able to tell when they were experiencing symptoms of paranoia and explained some of the techniques they employed to help reduce said feelings, stating:

> I would be convinced that people were out to get me… it was this super anxious feeling that would go away, but then I'd hear something and it just started all over again… I knew If I was awake for two days or more, [my paranoia] was way worse, so I'd try to make myself to go to bed and when I'd wake up, I'd feel okay again. – P2

> I start to think the cops are on the window washer thing, sliding up to break through the windows. So, I have to take breaks in between my sessions to settle down a bit… There's also pot, which takes the edge off when I get like that. – P9

> When I'm in a situation where I feel like I'm going too far, I just remove myself from it. Most times, you tend to be in a dark place, and you have no idea what time it is. So, normally what can change your thought process is just going outside and putting myself in a different setting. – P3

> You can tell when I'm a little higher than I should be because I will chain smoke marijuana to try and level myself out. – P1

For these participants, episodes of paranoia, such as "hearing" or "thinking" things or feeling they had "gone too far" seemed to be best mitigated by a change in scenery (e.g., "going outside") or a change in pace (e.g., "taking breaks", "go[ing] to bed", or using an alternate substance "to level myself out") which allowed them to "change [their] thought process" and "feel okay again".

Other participants spoke of similar strategies they used during moments when their mood and mental health felt particularly low. For some, this occurred during their comedown (after a period of use), while for others, this seemed to be more of a spontaneous occurrence. They noted:

> After the chemsex session, I'm gonna feel down and anxious… these huge mood swings where I'm just feeling like a downer and don't want to move or go to work. My

> coping strategy is being physical: moving around, getting myself up, having a shower, walking around the house. – P11
>
> When I'm feeling depressed, we'll try to go for a walk. It's harder in the Winter, but the fresh air calms me down. – P10
>
> If I'm in a depressed mood, I'll put on a TV show and I'll just watch and laugh things out. You know, just have a good time laughing. – P7

Participants also described strategies they employed to help facilitate a more subdued comedown after a chemsex session and to reduce some of the possible effects of restlessness, insomnia, loss of appetite, and changes in mood that could sometimes occur after use. On this, they noted:

> After a couple of nights out, I try to go back home, relax, take a shower – and most importantly, try to sleep. – P6
>
> I tend to get dehydrated. I can't eat. I tend to get itchy, but I've learned you don't pick that itch or you'll end up with a face full of marks. Physically, the comedown is really hard on your body, and it takes weeks to clear out. I just try to drink lots of water and eat right, but it still takes a lot out of you. – P4
>
> The older I get, the harder the comedowns are. If I party from Friday night to Saturday, I will try to not go to bed until Saturday night… so, I may not get a full 5-7 hours of sleep, but I will get myself to sleep. – P13

As noted from these accounts, participants had their own way of both recognizing when things had "gone too far" (e.g., when "depressed" or "anxious" feelings had set in or when they were experiencing physical symptoms of withdrawal) and managing how they coped with these feelings or sensations in the moment. While these were individual acts, the overlap in their reports suggests that group norms in chemsex circles valued the importance of self-care as a health management strategy, such as some form of physical activity (walking, showering, eating, and re-hydrating) or taking time to away to "get some sleep" and "clear out" (or recharge) their bodies. In the context of the seeming sense of urgency or immediate gratification that often-surrounded chemsex circles, it was also notable to see group norms equally cherished moments of solitude.

Building on some of these individual approaches to maintaining physical and mental health during times of distress (i.e., paranoia, low mood, withdrawal/comedowns), participants also spoke of self-management strategies related to their substance use. Specifically, these men

discussed the different means they employed to regulate their crystal meth use, which they felt helped to provide a greater sense of control over their use. Some participants reported engaging in conscious or tangible strategies (actions, decisions) for self-management; however, the majority of others described this as more of an unconscious or perceived sense of control they felt they had over their substance use. For example, participant 11 spoke about their ability to adapt to the exigencies they felt surrounded chemsex subcultures, stating the following:

> I've learned to control who are the people I'm engaging with and what I am doing. I tried to choose that more consciously now by making sure I'm in a safe space and trying to manage my dosage and everybody else's.

For participant 12, self-management related to spatial perceptions of "control", in terms of their awareness of their space and their ability to consciously regulate their actions in the moment:

> Even when I'm very high, I'm always conscious of where I am and who's around me. I've come to learn that I can't totally let myself go under because you have to be ready in case it's a bad vibe and I wanna get myself out of there.

Other participants described self-management as an inherent sense of control they had over their engagement in chemsex and their ability to regulate their use in and around those parties:

> It took me a long time to get to where I'm at to make this erratic situation sort of stabilized for me… so now, it's a decision. And its only because it got manageable for me. I'm not selling shit to get high anymore. I've got my own place. I'm not bouncing from couch to couch. You mature. – P8

> I try to have that connection with someone who's kind of in the same situation as me. Where I know they have to go to work in a few days, so they know where the limit is – which is very difficult thing to do. – P14

> I have a better grasp on my addiction than other meth heads… Some people's brains are just not able to handle drugs as well as others. And while I've had my dealings in the past, I learned from that and can control things a lot better than I used to be able to. You've gotta learn from your experiences and let that guide you. – P1

As gleaned from these statements, sentiments of "control" related to chem use and chemsex participation were noted to be an integral component of self-management for these participants. Regardless of how such control was measured or defined, these men had mastered their own ways of mitigating risk, which helped them stay within their "limit" and feel like their use (and by extension, their risk-taking practices) was more "stabilized", "manageable", and easier to "handle"

over time. Given the social narratives that often surround risk behaviours and chemsex, it was notable to remark how risk was both internalized and attenuated by participants in these settings.

In addition to the multifaceted ways in which participants regulated risk, they also noted engaging in certain protective strategies to safeguard their wellbeing during chemsex sessions. Most commonly, these preventative measures related to the locations where chemsex parties occurred with some preferring to host parties and other preferring to attend elsewhere (e.g., at someone else's home, at a sex club, in a bathhouse). Regardless of where or what that preferred space was, all the participants noted how controlling their environment provided an added layer of safety and security when they engaged in chemsex. Related to this, participants stated:

> I would never host anyone because it's harder to get someone out of your house than it is for you to just leave. I was always nervous of things going wrong or not being able to get somebody out of my house or someone being in psychosis, so I'm more prone to taking options for safety and the ability to get out and leave if I needed to. – P2

> When the party's over, people don't wanna leave. They feel like a mess and they don't wanna travel in public, so they're asking to stay longer or wait until dark. I feel bad, but it's like, the party's done. That's why I let other people host, invite, plan. Then I know I have the safety of my place to come back to and chillax and come down. – P4

> Up until a while back, I would have wanted people to come here, but now, I prefer to go to their place. That way, I have the option of leaving. Whereas if they're at my place and I've had enough and they haven't, it can get a little out of hand. – P13

While most participants preferred to attend chemsex parties elsewhere, participant 3 had less of a penchant for the location, so long as these did not occur in public or [un]controlled spaces:

> It has to be in private because things can be more easily controlled. If you are in a public setting, there might be a lot of things that are going on that are outside of your control: the music, the lighting, the music, all of those things. And also, just the mere fact that it's illegal, right? All of these things tend to make you decide how and when you should do it.

As noted above, deciding where chemsex sessions occurred were not just about finding a physical location – they were a measure for participants to protect themselves from the possible risks that could arise in and around these events. Given the described sanctity and security of chemsex circles, most participants did not enter these engagements expecting to be physically harmed. However, based on prior their experiences with things "get[ting] a little out of hand" or

people not “wanting to leave”, they had employed certain “options” to ensure they maintained the “safety” of themselves and others by being able to “decide how and when” they started or ended a given encounter. With so many participants raising points about the setting, location, or environment of chemsex sessions (including above and in the previous themes), it seemed that having the ability to seamlessly ebb and flow through these moments in time was both a foundational component of *imperceptibility* and a cherished group norm in mitigating risk.

As a final facet in participants’ re-formation, they discussed some of the harm reduction strategies they incorporated into their chemsex circles to help protect the health of those around them. For many, these approaches followed conventional harm reduction strategies specific to substance use, including use of sterile or new needles, pipes, or other equipment for drug administration. Notably, however, participants also raised alternative harm reduction strategies they engaged in to reduce potential harms to their mental health, including participating in education sessions with individuals in and outside of their networks who were also using chems.

Related to harm reduction supplies, participants discussed the importance they placed on ensuring they and their peers had access to new or sterile drug equipment during their chemsex sessions to reduce the possibility of blood-borne infection transmission or acquisition, stating:

> I’m an advocate for people taking care and partying safer. If somebody is slamming, I’ll ensure they pick up their needles and that they go in the proper box, so then it’s not lying around. I try to be really on the ball with that because I don’t want to put anybody else in harm. – P7

> If I know people are having parties, I’ll bring harm reduction stuff for them to make sure they have everything available for them there. You know, places to put syringes, alcohol swabs. We also have the little vials for measuring a dose of G. It’s just safeguarding people. – P13
> I don’t want any pipes or needles hanging around the house, so when it’s done, I’ll give the place a good clean up and I always have to restock. – P4

In addition to ensuring new or sterile equipment was available, participant 1 also discussed using in the presence of other people who could assist in the event they experienced an overdose:

> I’m trying to be a lot more careful about mixing my chems with Fentanyl because I’ve overdosed on it a bunch of times. So that’s a big problem for me, especially with that

> drug because I don't really want to do it unless there's someone around that can Narcan me if need be.

For these participants, "safeguarding people" was paramount to participation in chemsex to ensure both they and those around them had "everything available to them" to avoid being "put in harm[s]" way by potentially reusing equipment, being exposed to a needle-stick injury, or unintentionally overdosing from "mixing" drugs or over consuming certain "measurements" of drugs. This awareness and sensitivity to potential risks for others reinforces the communal nature of chemsex subcultures. That is, while normative practices associated with chemsex, such as substance use or casual sex, might have been associated with an implied degree of risk, participants and their peers took considerable efforts to reduce some of these risks by ensuring harm reduction materials were readily available, accessible, and used during these sessions.

In addition to the conventional metrics of harm reduction, participants also spoke about how they sought education and support from their peers related to chemsex. Whether such engagement took the form of structured programming (e.g., community peer-supports or group education sessions) or more casual support (e.g., from a friend or peer within their own networks or circles), participants seemed to value the semblance of compassion, caring, and encouragement they received from others in these moments. In the words of participant 7, "if we keep it all under the rug and don't talk about it, how do we expect anybody to understand what we're going through". Additional sentiments related to community supports were raised as follows:

> I saw a promo for this group on a hookup site. I didn't know at first that it was a harm reduction thing, but it was the best thing I ever did. Every two weeks it's an online meeting about substance use and harm reduction. It's really a sense of community for me… it lets people know they're not alone and that I'm not alone. – P12

> I've been on different Zoom groups where we talked socially about different things like how people feel about doing chems, how they react, how they get together. I just love being able to talk to peers and peers helping each other out. – P13

> When I was first diagnosed, I started reaching out to AIDS service organizations around the city. So, I've been into these small support groups for newly diagnosed folks and for PnP. I kind of built this support group for myself, which has been one of the main things that's helped me cope. – P11

Within these statements, participants reflected on the importance of their peers in helping them to establish a true sense of place. Indeed, despite the sometimes-complex relationship that participants may have had with chemsex (and by extension, their peers), they seemed to have found an additional layer of "support", "community", and "cop[ing]" within these groups where people were "helping each other out" – and most importantly, where they knew they "[weren't] alone". It thus would seem that in becoming *imperceptible*, participants had been able to loosen the tethers and chains that previous confined them to a life of insecurity and isolation and allowed them to re-formulate into a person, place, mood, state of infinite becomings. They had been freed.

Emergence

As both this theme and this chapter come to a close, participants provided a final glimpse in their metamorphosis of becoming *imperceptible*: in transitioning to a virtual reality in a new realm of existence (planes, flights, striations) far from their previous life and of (be)coming into view as a new formation of the previous fragments (assemblages, lines, and organs) that once filled their bodily cavities. Within this virtual world of potentials, however, connections and intersections of subjects and objects were not (and could not) be pre-determined; risks, connections, pleasures, and pitfalls might have existed as possibilities, but their unprecedented experience could only be felt or actualized in this virtual world where what was real had not yet been actualized. In other words, participants could never have predicted or anticipated how their experience within chemsex subcultures – the values, norms, dynamics, actions, behaviours, and beliefs of these formulations and their effect on health and risk-taking behaviours – would be experienced; what became was not thought possible.

Reflecting between the past and the present, participants were asked to share their perspectives on both their engagement in chemsex and on the realities of chemsex subcultures. Of note, these perspectives represent a collection of affects and intensities of a moment in time. Change will occur because they (the participants and their peers, moods, time, substance, cultures, subcultures) were ever changing. It was, however, important to hold space for the

moment in which their emergence occurred. Related to engagement in chemsex, participants were asked if they felt chemsex could be done casually – that is, could individuals go back and forth between the present reality and virtual reality. These perspectives were as follows:

> I think I only know one person that's actually stuck to their guns and only done it once a month kind of a thing. Everyone else that I've met is definitely, 'I'll just have two hoots. Oh, I'll just have one tomorrow. Oh, I'll just try another one after that'… it always progresses into more, I find. – P1

> I've been doing this for years and I've never met anyone who can do [meth] successfully. You know, being about to live life and not have their family and friends be impacted. Not have your position be impacted. Not have your responsibilities impacted. It just takes over everything. Its really only a matter of time. – P2

> I could still manage not doing it one week if I said I wasn't going to, but that's for me. I would definitely see the difference in the experience itself though because the buzz just isn't the same. – P11

> I'm probably one of the weird ones because when I've had enough, I don't feel the need to do anymore. – P13

> Very few people bring up what happens outside of those situations. You might not know how often they're doing it because based on their schedule, they might only be available to you on the weekend. You just know when you're meeting them, and you meet. – P3

As noted above, engagement in chemsex (and the degree of participation in said practices) was highly individualized, with some indicating casual engagement was possible – even easy; others indicating this was less likely; and others indicating it was impossible to assess in some people because they did not discuss aspects related to their personal lives – they "just meet when they meet". In any case, these narratives highlight that intensities of engagement could (and did) ebb and flow amongst participants – and by extension, connections between substance use and addiction could swing with the pendulum of engagement or even become blurred. Substance use or addiction was not an all or nothing or an absolute on either end; it was always in a state of flux.

Building on this point of absolutes, participants also shared their perspectives on chemsex engagement – reflecting specifically on their own lived realities of use (again, with these being specific to the time and place in which they were shared). For some, these perspectives reflected their personal enjoyment of chems and participation in chemsex, despite what risks might have

been present. Others, however, spoke of their lived realities with more despondency over the expectations they had about chemsex at the outset against the reality of their current chemsex-using lives. Regarding risk and enjoyment of chemsex, participants shared these perspectives:

> It's never been about risk taking. For me, it's always been about the high. – P10

> Yah sure, there's gonna be some repercussions to my actions. I mean, I've picked up a couple of STDs before, but all-in-all, I'm still gonna do it regardless of what's happened in the past. – P8

> The consequences and side effects are never really discussed – like if you've been using for this long, this is what's going to be happening to you… I don't know what will happen if I continue using it. I can guess, but I don't know. I've survived seven years – maybe I can survive another 20? Who knows. – P3

Other participants expressed their realities of use in different terms, stating the following:

> If someone had been there to talk about the dangers of chemsex, I would have quit a long time ago. But it was already too late for me. – P5

> I wouldn't wish what happened to me with this drug and with this stuff [HIV] on my worst enemy. I wouldn't wish it on anyone. It seems fun for a minute, but it's not fun. It'll take over your life and then before you know it, you'll either be dead or in jail. It's just so debilitating sad. – P2

> I would love to be in a position to be able to help other people overcome their addictions. But that's not a viable option until I can overcome it myself. And at this point in time, I'm not sure if I ever would be able to completely quit, but that's probably just me having self-doubts. – P1

> My outlook is based on twenty years of being out and almost half of that being HIV positive and using drugs. It all felt a bit more glamorous at first: all glitz and sprinkles and sparkles, but things are pretty dark. It's pretty sad and depressing. Party and play, really? You're getting high and having fucking anonymous sex. You're pigging out… Sorry if I haven't sugar coated it. – P4

On the surface, these statements reflect acknowledgment of the presence of the potential "risks", "repercussions" or "consequences" they had either personally experienced or witnessed in relation to chemsex engagement. There was also an undertone of melancholia present in some of these narratives, with participants describing their realities as "sad", "depressing", or "dark". Shifting focus away from the more overt points of contention raised above (regarding risk and feelings of desolation), it seems these statements also speak to the *extremes* of chemsex subcultures. Participants lived, engaged, experienced, and protected with abundance. While in

some cases, this may have manifested as “pigging out” or being unable to “overcome [an] addiction” or being uncertain about “what will happen if [they] continue using [crystal meth]” there was also an abundance of optimism. That is, despite the uncertainty in some of their statements, they still maintained positive expectations because they knew their realities were not experienced in isolation. They belonged to a chemsex subculture. They were intertwined and assembled, folded and re-formulated as one of many that were bound by threads unseen, but unbroken.

A final point of reflection on the realities of use was shared by participant 14, which represents the culmination of becoming *imperceptible*. Despite seasons of light and dark, they knew that in carrying (belonging to) a chemsex subculture, this culture would carry them back:

> It's taken me a long time to believe there’s something keeping me here. There’s something left undone and until its done, no matter what I do, there’s no escape. So, it’s about living a better life because your outlook on that life affects how you live it in so many ways.

Theme three: *Imperceptibility* was truly a journey of reflection for the participants – a reflection on their health (HIV, mental health, substance use, addiction), a reflection on their relationships with others, and a reflection on their own lived realities. These points of reflection served to demonstrate shifts in intensities, relations, and being – i.e., into reaching a pinnacle of pure becoming or *imperceptibility*. Here, they were no longer recognizable both to themselves or others (labels, definitions, confinements); they simply flowed through life never fixed, constantly in motion, always becoming. In the words of Deleuze and Guattari[155,p.252], "Everything becomes imperceptible, everything is becoming-imperceptible on the plane of consistency, which is nevertheless precisely where the imperceptible is seen and heard.” Indeed, from participants statements, it was clear that chemsex subcultures represented everything. While their journeys toward *imperceptibility* were not always smooth, it was notable to remark how the things that separated them (intensities of their past, present, future) were also the things that bound them together (i.e., made them “everything”) because though their experiences were not them same, they could not be experienced in any other reality. They were present, real, yet beyond capture.

Summary

In keeping with the research objectives for this study, chapter five revolved around the exploration of chemsex subcultures, including (1) the norms, dynamics, and experiences of a group of GBMSM identifying participants who were living with HIV and engaging in chemsex and (2) the effect of these subcultural norms and values on their health and risk-taking practices. Such exploration was facilitated by a self-administered questionnaire to introduce the participants and semi-structured interviews to facilitate in-depth exploration of the research objectives.

The self-administered questionnaire had a 79% completion rate. Among those who completed the survey, the majority identified as gay, of Black or white ethnicity, and of "excellent or good" mental health. Participants had been living with HIV for an average of 13 years, with most reporting being engaged in HIV treatment and/or follow-up and strong engagement in medication use. All participants reported recent or current engagement in chemsex, with most using crystal meth or other stimulants as their drug of choice in these spaces commonly via inhalation or injection. Most men reported engaging in chemsex sessions for 1-3 days – while one-third noted their involvement to be ongoing. Compared to their engagement in HIV care, fewer participants reported being connected to mental health services, including prescription treatments, though almost all reported having a previously diagnosed mood disorder which they typically self-treated with non-prescription remedies (i.e., stimulants, depressants, or both).

Findings from the qualitative interviews were categorized into the themes of (1) *Becoming-animal*, (2) *Interiority/Exteriority*, and (3) *Imperceptibility*. The first theme explored participants' emergence into the chemsex underworld – which was fueled by their desire for change, for escape, and for a different lust for life than the one they were currently living. Indeed, these were men who had previously lived within the social fringes due to their perceived disconnect between who they were compared to who others thought they were (i.e., an 'other'). In many cases, this separation related to unresolved tensions related to their HIV diagnosis, with participants reporting

having felt “scarlet lettered” from the world around them. This persistent othering caused them to retreat within themselves and contributed to persistent feelings of isolation and low mood.

Within the new and exciting world of chemsex, however, participants described a reality that had been turned on its head. Notably, their foray into sexualized drug use seemed to occur passively – with many participants describing having casually been offered crystal meth (or other substances) by a partner or acquaintance. This introduction to chems would mark the ending of a once typical sexual or social encounter, as the participants suddenly found themselves immersed in a network, a community, a state of being that was all their own; they had formed a subculture. Designation within this space was also marked by development of their own language; they had their own way of living, acting, communicating, and connecting that could only be understood within the confines of chemsex subcultures. Within these spaces, these men developed an inherent sense of the various rules for engagement, including the indicators they used to establish connections with others, the spaces they met and engaged in, and the intensity of the dynamics between their partners (which could either amplify or diminish the experience of that connection). Notably, fluency in this language seemed to be self-taught. While all participants described overlapping patterns to their practices, their descriptions were marked with certain and subtle nuances that made chemsex subcultures their own. They all had their own ways of assessing, participating, and engaging with others – that combined, provided an internal measure of control both individually (for these participants) and collectively (as a group of participants in chemsex circles). In other words, subcultural norms operated with an implicit set of rules that all participants had to follow to establish safety within these spaces and maintain the sanctity of their networks. Thus, while the intensities of various connections would ebb and flow, the values, behaviours, and expectations of engagement always remained the same.

The second theme delved further into aspects of community as participants described the forces, influences, and relations that marked their designation to chemsex subcultures. This theme was more than chemsex decorum or rules of engagement – this was about their group as

a *collective* and their shared identity. As was observed, chemsex subcultures were regarded by many as a surrogate family, with participants having been seemingly adopted from the periphery of society into a network of people who shared the same values, actions, and connections. The planes of their dynamics were not always fixed or stable. In fact, these were continually marked by shifts, bends, breaks, and cuts that were molded, soldered, and pieced back together in various arrangements at any given point. As a result of these constant reconfigurations, participants would find themselves in different positions at different moments in time. Some views were *interior*, where participants discussed the personal, emotional, and sexual pleasures that marked their subjectivity (their sense of identity) within these networks. Some views were *exterior*, where participants discussed the relations that moulded their communities (and their own position within them) and the intricate dynamics of belonging. Combined, however, it was apparent that chemsex subcultures reflected a constellation of organizations and relations across difference; these men participated in the various flows of their dynamics as opposed to conforming to predetermined categories about what it meant to be a 'community' or a 'family'. Irrespective of whether these shifts caused participants to feel more connected or removed from their networks in any given moment, the strength of their collective bond did not waver because their community (their subculture) was created in and of these interior and exterior components. What they shared and what they had created, was all their own and they protected it at all costs.

The third theme mapped participants' evolution toward becoming *imperceptible*. Specifically, it focused on their complete immersion into chemsex subcultures, plunging to a depth where the world they one they once lived in was no longer visible. In this new (virtual) reality, participants described themselves in a third-party view – almost as if it were from the outside looking in. As part of this peripheral stance, participants engaged in forced reflections about who they were now compared to the version of themselves they had once been. Importantly, these were not reflections of immorality or impropriety. Simply put, things were different now than they were before, in that participants felt they had reached a point (a new reality) that they could not

return from. Components of their flows had mutated, stalled, seized, decayed – and while new formations were continually occurring, they could not reattach that which had been separated.

This evolution also contained participants' reflections of health and wellness, which, much like the distinctive norms, dynamics, and experiences of chemsex subcultures, had their own idiosyncrasies. Despite any challenges participants might have encountered within their new formations, there was an implicit understanding that they did not face these in isolation and that at some point, the revolution would turn again – yielding a new personal form. Overwhelmingly, health (particularly, the health of other people within their circles) was held in high regard, which was manifested in participants' constant cognizance of their HIV status (regardless of their reported antiretroviral use) and their unwavering efforts to safeguard the wellbeing of those around them using self-made strategies. *Imperceptibility* thus seemed to be marked by self-reliance. Specifically, participants had their own way of assessing and preventing risk and protecting their health, and that of others, which both differed from social and medical metrics and could only truly be understood within the parameters of chemsex cultures.

In conclusion, it was apparent that chemsex subcultures represented more than 'partying and playing' or even a subculture – this was really a state of being: a separate reality in and of itself. This world, however, was best understood by uncovering an alternate mode of *seeing*. That is, no longer relying on one's eyes to make observations, and instead, using participants' words, descriptions, and emotions to see what was there. From this perspective, one could witness participants transition from isolation to becoming-animal, to a virtual state of *imperceptibility*. One could see and feel the interior and exterior factors, forces, and influences that shaped their networks and their subjectivity. Importantly, their movements were no longer restricted by their HIV status, mood, or substance use. These men belonged to a constellation of networks that allowed them to breathe with different lungs, walk with a different gate, feel on a different level, cum with a different pleasure, and connect with a different heart. 'Party 'n play' may have brought

them here, but their culture (their network and connections) kept them alive and fulfilled. Further discussions of these findings will be explored herewith, in chapter six.

CHAPTER SIX: DISCUSSION

"My eyes are useless, for they render back only the image of the known. My whole body must become a constant beam of light, moving with an ever-greater rapidity, never arrested, never looking back, never dwindling.... Therefore, I close my ears, my eyes, my mouth."

— **Gilles Deleuze & Felix Guattari**

Chapter six consists of a discussion of the research findings, which are explored through the lens of the theoretical concepts described by Deleuze and Guattari[155-157] and the appropriate literature. Returning to the research objectives and expanding on what was revealed in the preceding chapter, this discussion focuses on (1) *decoding the linguistics of chemsex subcultures* to reveal (2) the *revolutions of becoming* experienced within the context of chemsex group norms and (3) the *value of health* that informed health and risk-taking behaviours. In addition, this chapter details some of the limitations of this research study and finally, is concluded by reviewing some of the future recommendations for nursing care for HIV positive GBMSM who are engaging in chemsex.

Introduction: Decoding the linguistics of chemsex

This research involved ethnographic interviews with a group of men who have sex with men who were living with HIV and were (actively or recently) engaged in chemsex – a topic which, to date, has minimally been explored from a nursing perspective. As was revealed in the findings, these men belonged to subculture (a community, a group) that while complex in nature, never waivered in its structure or support of one another. Ultimately, they had their own way of living, communicating, and interacting with one another that could only be understood within the confines of chemsex subcultures. From this perspective, chemsex subcultures function as sites of subcultural reproduction, where shared practices, affects, and ways of relating sustain forms of life and belonging across time, even as participants themselves remain in states of flux and becoming[213]. These group functions were uniquely understood in the context of ethnographic

research, which aims to uncover the varying facets that make an (otherwise random) collection of people a *culture* or subculture – i.e., that gives them their name or identity.

Recent critical work has increasingly approached chemsex not simply as a set of behaviours or risks, but as a culturally and affectively organized world – or "life-affirming cultural practice" – rich with its own histories, norms, and modes of relating. From this perspective, chemsex is understood as a site where language, pleasure, intimacy, and belonging are produced collectively, and where participation cannot be reduced to individual pathology or fixations on harm[213,214]. In the case of this particular study, this required a commitment to uncovering new perspectives of sight by challenging typical formulations of what it means to see in order to engage in more rhizomatic perception[155]. Indeed, in relying only on vision, the gaze can become narrowed to what is at the fore, whereas, *seeing without seeing* followed the intensities, multiplicities, and connections within participants' statements. In being freed from a reliance on sight, it allowed the opportunity to use alternate senses (e.g., hearing, discerning, identifying, envisioning) to uncover items that may not have otherwise been perceptible when the eyes were only pointed in one direction. Approaching the research from this perspective also helped to foster the transactional and interactive relationship with participants that is desired in postructuralist critical theory inquiry in order to discover the true knowledge embedded within the construction of their reality[37,40].

What was uncovered in this co-created dynamic with participants was that their reality was a mille-feuille of dimensions where time, space, and connections flowed differently through and between each layer, but subtly influenced one another. Anchoring these delicate layers were the major themes of *Becoming-animal*, *Interiority/Exteriority*, and *Imperceptibility* – while the liminal spaces in between reflected a continual point of entry (becoming) for the participants: into chemsex, into pleasure, into community, into health, into emancipation, into reflection, into a new way of living or a new life. In many ways, their reality existed between different states of being in which their former self was constantly changing, but the latter (the new self) had not yet taken shape – somewhere between the threshold of what was and what could be. Within this state,

there were components of the self, such as health, pleasure, and connection that bound them to alternate layers, but the substance itself was never stabilized enough to ever make them whole.

Recognizing the context of the reality of HIV positive GBMSM who engage in chemsex provides valuable insight into the truth of their lived reality – in that, they may not always be in a fixed or tangible position, which can make them and their experiences difficult to grasp under socially constructed standards of what health, pleasure, and connection *ought to* look, feel, or sound like. These participants (and by extension, those within their networks) were themselves, assemblages[155]: a collection of pieces that merged to become one whole. For them, these pieces were components of themselves (or their former subjectivity) – their HIV diagnosis, their mental health status, their sense of self, their previous life experiences – that coalesced within an opportune moment with their foray into chemsex and continued to converge as they became more enmeshed in chemsex subcultures (their incorporeal transformations)[155]. Specifically, they were no longer defined as a singular entity[155], such as a gay man or an HIV positive person or somebody with mental health trauma, because the sum of these parts made them who they were.

While it was their connection to the bodies without organs and machines that actually made them operational (or got them out of their former shells), their formation as assemblages also coded and inscribed their language[155,215]; it gave them the ability to express themselves (articulate, accentuate, intonate, enunciate) and, for the first time, be clearly understood. This language, however, was not audible until it was spoken in their own world. That is, in forming as an assemblage, participants gained independence from themselves and the social inscriptions that held them back from expressing themselves (living) the way they wanted to[155,216]. While terms like ‘chemsex’ or ‘party ‘n play’ may have been the parts of assemblages that identified what they were doing, the language within these circles was not a segmented expression (or a spoken form of speech)[155]. Rather, this was an indirect discourse – a dialect – unique to the assemblages of chemsex subcultures in which communication occurred through a coded form of actions, signs, senses, and chemistry[155,216]. The deterritorialized nature of this indirect discourse facilitated

opportunities for the becoming of assemblages[155] – allowing these men to be transformed by new sensations, form new connections, and reach new and heightened states of emotions. In other words, chemsex brought them together, but their connections to each other (as machinic assemblages) and to their shared experiences (as collective assemblages) helped them to understand each other in ways they felt nobody on the outside could appreciate[155].

For these men, being or *living* became positioned by their proximity to chemsex subcultures and thus, was largely dependent on the dynamics of the relationships they had with different people (e.g., chemistry, connection, acceptance, comfort), things (e.g., appendages, bodies, pipes, needles, smoke), and contexts (e.g., euphoria, ejaculation, withdrawal, escape, dependence)[215]. As such, the way a certain connection materialized would differ in any given moment because, as an assemblage, their expression (experience) was never fixed[155,161]. Indeed, the various lines that form assemblages would move and shift within the interior and exterior components of chemsex subcultures and the forces between their connections, creating different significations (meanings) for the participants – ones, which despite their best efforts, could never be replicated[161,162]. That is, even though they had a shared understanding of the language that bound chemsex subcultures, they often seemed to be in search of a form of stability – a certain high, the ideal partner, a particular level of validation, the perfect state of health – that may not have been attainable because they, themselves, were in a constant state of flux (or becoming).

And therein, lies the cyclical nature of chemsex where participants found themselves continually changing – or *deterritorializing* and *reterritorializing*[155]. Within these revolutions, chemsex and its associated activities created a force that broke down the barriers of normalcy, allowing these men to escape from their former (territorialized) selves and experience a life without bounds (to deterritorialize)[155,160]. In this new form, participants felt more liberated – free to push their bodies and minds to new states of pleasure with the substances they consumed, the sex acts they engaged in, and the chemistry and connections they created with others. As these deterritorialized experiences faded, this led to new formulations (versions) of themselves as they

reterritorialized into cycles of control[155]. Specifically, participants described how the euphoria of chemsex could be replaced by the dysphoric aspects of chemsex, such as the rituals of use, the secondary effects of substance use and withdrawal, and the potential for dependency. As noted by the participants, the force of these revolutions occurred with different intensities and at varying rhythms and speeds with deterritorialization and reterritorialization occurring in tandem (participant's desire for pleasure or escape being a force of control) or in reverse (as participants sought to shed the forces of control to become liberated again in an alternate form)[155]. The syntax of the language within chemsex subcultures thus explains how even the most radical lines of flight can be swiftly recaptured, showing that liberation and control often coexist within the same assemblage. Ultimately, they all shared the same desire for self-expression and re-invention.

Revolutions of becoming

Opportunities for re-invention were marked by participants' connections (as assemblages) to various people, moments, substances, and pleasures (machines) – as the forces that motivated their engagement in chemsex. For them, an average foray into use, whereby they were passively given chems in a social or sexual context, created an atypical (almost, out of body) experience: it allowed them to transform into something new; to become a BwO. In entering into the world of chemsex subcultures, participants were not forced into something they would have never previously done because the BwO pre-existed in the structures or strands of their being[155,157]; it simply required the proper connections to propel the flows of desire to actualize what desire looked like *to them*. In other words, this want (their desires) already existed within them – for some, operating within the shadows of their consciousness, and for others, flowing at a low frequency. In this case, sexualized drug use became the catalyst for actualization of desire in its fullest form, releasing it from its hold (what they lacked) and re-routing it to express itself[155,157] within the bodies of the participants in the vast space of their new world.

This initial rush of desire produced rather animalistic forms in these men: the *euphoric body*, the *confident body*, the *gratified body*, the *kinky body*, the *anonymous body*. Each

permutation of these bodies was inspired by the various iterations of participants' connections with others (their machinic assemblages) allowing them to experience dimensions of personal pleasure with unparalleled levels of intensity. In its most basic structure, desire presented in a sexual form for participants. As a BwO, however, sexual pleasure was not bound to the penetrative act of sexual contact (i.e., genital-focused). Rather, desiring-production acted as the force that linked participants to chemsex subcultures and allowed them to explore various people, positions, toys, sensations, roles, and erotic zones. As explained by Deleuze and Guattari, "the body without organs is opposed less to organs as such than to the organization of the organs insofar as it composes an organism"[155,p.30]. That is, there was no hierarchy (no objective, end, climax) to their experiences of pleasure because the *pleasure itself* became the surface on which desire was channelled; it neither had bounds nor restrictions[155]. The nomadic nature of chemsex thus became an ideal venue for participants to experience these flows of intensity because it was truly a limitless space[155,156]. Time went on for hours, substances were generally always present, the selection of partners was bountiful, and people did not cum with urgency. Once they understood the language necessary to communicate, there really were no rules governing their participation: they could take what they needed, they could give what they wanted, they could witness the experience of pleasure in somebody else entirely, they could be of any HIV status. And with no two experiences ever unfolding in the same way, participants had the opportunity to explore arrangements in a multitude of forms – to take on different moods and personas.

As shared by the participants, personal pleasures seemed to extend beyond a physical or sexual experience – they had a profound impact on their sense of self. In many ways, narratives of sex and drugs felt more like a surface level interpretation of what chemsex participation represented to and for these men. In entering into chemsex subcultures (in becoming a BwO), participants were able to shed the layers of subjectification that previously regulated their bodies, making them static and fixed[155,157]. Most notably, were the beliefs that participants internalized and projected onto themselves: as the feelings of dejection, rejection, shame, regret, loneliness,

or worthlessness that radiated through their statements. It was not that participants were entirely self-deprecating, but the combination of their prior traumas and social rejection had created – or *territorialized* – a perception (a version) of themselves that they could not unsee[155,157,163]. Specifically, these internalized emotions had organized free flows of desire and taken form as their identity, giving them a repressive (social) function within their own lives[157].

In assembling into chemsex subcultures and deterritorializing within the spaces, places, and feelings created by the BwO, participants were pushed outside of themselves. Here, they could shed the weight of their previous structures (identities) to become transformed. The temporal fluidity of chemsex subcultures hyper-intensified desiring production, recoding participants as *desiring machines*[157] (the processes that connect and produce flows) operating beyond normative libidinal and social thresholds. As desiring machines, a new (virtual) reality was created with their every action, breath, touch, and feeling because these machines worked mechanically through their connections to different people and parts[157]. In the view of the participants, chemsex subcultures thus provided endless mechanisms of becoming[157] because there were endless possibilities for the connections they could create or the roles they could play in the unstructured structure of these networks: a power bottom, a friend, a foe, a lover, an addict.

These revolutions of becoming were signified by group norms of chemsex participation, such as the intense sexual pleasures or the euphoric effects of crystal meth or other substances – in fact, this is what participants said had brought them to these networks in the first place. And while chemsex could (and did) produce a kind of limit-experience[217], the true experience of radical immanence appeared to be the connections it created to *others*. Said differently, engagement in sexual pleasures seemed to be a means by which participants achieved personal pleasure – specifically, the comfort and acceptance of others. This observation was reinforced within the extant literature exploring reported motivators for chemsex engagement among GBMSM where terms like happiness, self-confidence, self-expression, peace and liberation practically leapt from the pages[137,139,218,219]. It would thus appear that equating chemsex engagement to sexualized drug

use was quite a reductive view of the powerful form of pleasure these men experienced in the contentment or embrace of others. Their craving for connection was what made them (fueled) desiring machines. This is what connected them to a community – *their* community – and released the flows of desire within them, allowing them to experience the real effects of general positive states of emotions. The feeling of acceptance (as the intuitive sense of fulfillment they felt inside of themselves) is what truly made them *imperceptible*[155].

While this level of pleasure is likely a powerful position for almost all persons who engage in chemsex, it was a particularly salient experience for this group of men whose personal subjectivity (connection to the self) was also interrupted by HIV. Related to this, Race[30,p.180] notes:

> [Crystal] itself is specifically valued in the context of the HIV positive experience… Considering the phobia and social stigma that surrounds the very idea of the sexually active, HIV positive individual, it is significant that some HIV positive men see the drug as providing a temporary escape from the normative pressures of HIV positive subjectivity. The drug may be used to construct a different materiality, one less structured by concerns around HIV transmission.

Though the experiences within chemsex spaces could sometimes be generalized to their specific activities or practices, there seemed to be an added layer in the value of *belonging* for GBMSM living with HIV. The sentiments they expressed about who they felt they were before entering into chemsex subcultures (as subjective, territorialized entities) were in many ways, directed toward their HIV status and their life (or assumed identity) as a *seropositive body*[157]. In this iteration of the BwO, their status became the blockage that interrupted the flows of desire[157]; they had forgotten how to live outside of the monotony. The continual ruminations in their minds over how they had acquired HIV and the ways that HIV made them feel othered (stigmatized, rejected) in society had rendered them an *empty BwO*[155,157], their former selves, their former bodies were an abyss. Their seropositive bodies had effectively been reduced to a site of abandonment (burnout, exhaustion) that was no longer capable of forming connections – of affecting – of *becoming*[157].

Creative experimentation, to this magnitude, was thus truly a becoming of becomings for the participants. Here, the clouds of crystal meth smoke, the calm rush of a high, the hard touch

of a body, the warm heat of dripping sweat, re-ignited the connections of the BwO to the flows of desire and desiring machines[155,157] – it gave them a new lust for life within the confines of chemsex subcultures. Having been re-awakened from this comatose state so abruptly and with such force, participants seemed to have formed a near immediate connection to their new world. They jumped in with both feet (without hesitation) because they felt that instant gratification of belonging. That is, once they crossed the threshold of desiring production, the language of chemsex subcultures became perceptible (audible, clearly understood)[155,157]. They had been accepted – and they would do anything to ensure the comfort of that embrace was never pulled away from them.

While these spaces provided sites of intense (rapid, urgent) intimacy and connection, in some moments, they were also marked by flows of ambivalence, disaffection, or emotional disconnection[155,157]. Specifically, it was clear to see that chemsex subcultures were cherished spaces for the participants – it gave them life, feeling, emotion. At the same time, however, there also appeared to be a coldness or darkness to these networks that created some tensions within the participants. These experiences often occurred in tandem – as the dimensions of *interiority* and *exteriority* – within their connections, with participants managing feelings of community and alienation or adoration and superficiality occurring in the same breath[211]. Recognizing that no relationship dynamic is ever perfect, it did seem as though participants had to accommodate (re-arrange, re-configure) parts of themselves to maintain their connection (flows) to their community, even in moments where they did not feel a genuine closeness (or true connection) to them. Instead of making themselves a BwO, they had transitioned into an abstract collection of organs, lines, and parts that they tried to establish a link to machines that they did not fit into (like forcing two misaligned puzzle pieces together) – and so, that connection (forces, intensities, production) did not always flow correctly[155,157]. As explained by Deleuze and Guattari:[155,p.150] “You never reach the Body without Organs, you make yourself one, you can’t desire it, you fabricate it.” In brief, it seemed the participants sometimes, tried to assemble themselves into something they were not to maintain a linkage or connection to their community. In this way, revolutions of becoming were

not necessarily marked by intensities of liberation (deterritorialization), but could also be swayed by forces of conformity (rigidity, territorialization)[163].

Thinking back to participants' statements about their engagement in chemsex over time, many of these referenced their substance use – which were captured throughout theme three. In a study focused on chemsex and its association with chemical and sexual practices, it would be natural to assume that aspects related to drug use were a legitimate concern (because they were relevant experiences to them) – they just may not have been the primary source of their concern. In other words: *Were their experiences and reflections solely related to substance use – or were they influenced by their craving for connection?* Specifically, their need, their want, their desire to stay in the moment and to maintain their relationships to chemsex subcultures (desiring machines) to avoid having to start over (become an empty BwO again) may have been an influential factor in their ongoing participation; a force that continually pulled them back into chemsex subcultures[155,157]. Perhaps, their expressions were less about stopping or slowing down their substance use – and more about their inability to separate from (or quit) each other.

There is, however, a delicate balance in maintaining the BwO because, as they previously experienced with their HIV subjectivity, these can collapse if they become too rigid[155,167]. That is, the intensity of participants' craving for connection (as an actual want or need) may have blocked the flows of the BwO, thereby disrupting its connection to the desiring machine and toppling the mechanisms of becoming[155]. In this case, sex, drugs, and their associated euphoria acted as the vessel that (they assumed) would bring them to a state of peace – of acceptance. It would seem though, that the sense of warmth, safety and love that surrounded these spaces became the *addictive* component – it was simply manifested as a dependency or reliance on, or preference for, substances and sexual pleasure. In relying on one component (sex and drugs) to fuel the other (acceptance), these men had actually become cancerous BwO[155]. That is, they had been re-subjectified (organized) within the cyclical pattern of chemsex revolutions – in the revolutions of their becoming[155]. At the same time, they had become so imperceptible that they may not have

been able to recognize the cancerous BwO that had formed within them – the version of themselves that they had become. It was, however, a state of being that was truly cherished.

The value of health

One component that participants cherished was the value of health. In decoding the linguistics of chemsex subcultures, it was clear that the distinction in their diction also extended to the physical, personal, mental, and emotional wellbeing of themselves and the people around them. All the major themes and subthemes highlighted that chemsex group norms valued life above all else – they just did so with different terms of reference that what might have been expected (or enforced by dominant medical structures). Indeed, as assemblages themselves, there was a fluidity in how participants constructed aspects of health that countered conventional views (territories)[155]. For them, the various lines and fragments composing assemblages of health had different properties and because chemsex spaces had their own processes (norms), they had to accommodate health and risk-taking practices to fit within the structures of these networks[155]. Given the highly malleable nature of assemblages, this meant that flows of health (preservation of wellbeing) could present in different actions and interactions depending on the assemblages and machines they had connected to – or the situations they were in[155].

The segmentary or molar lines composing the participants (as assembled bodies) were fixed in structures of health – and one major thread within these strands was their HIV infection[155,156]. It was the rigid line that was present in everything they did; it was the effect that brought them into this world of chemsex subcultures and firmly bound them to it. This sentiment was less so reflected in participants' self-reported engagement in HIV treatment or the frequency of their follow-ups with healthcare providers, but rather, the practices they engaged in in protection of others. Indeed, narratives of health resonated throughout most of the research findings – from the various risk and harm reduction strategies participants engaged in, to the ways they safeguarded themselves and the people around them from potential HIV transmission.

The pivotal point within these statements was that participants clearly valued their health, but they took a *deinstitutionalized* (deterritorialized) approach to health engagement and HIV management. That is, participants had an individualized view of healthcare that did not fall within the same metrics of the healthcare providers overseeing their care or what dominant public health regulators managing their follow-ups expected (or wanted) it to be. In reframing health from this perspective, it can be said that these men acted as a *war machine*[156] – breaking apart the striated spaces or appropriations of health imposed by the State (broadly defined herein as the 'healthcare system', but also encompassing public health systems, guidelines, and laws)[17,97-99,220,221], replacing them with smooth ones, and propelling them toward a state of *imperceptibility* where they could manage their own health on their own terms (free from capture).

Certainly, participants had an awareness (codification) of what was expected of them by the State. They could recite a list of the potential risks associated with chemsex engagement[43,110,153,186,222], such as STI acquisition or substance use dependency, but these risks did not appear to hold any true meaning or relevance to them within the normative structure of chemsex subcultures. Similarly, they could describe some physical or mental challenges associated with drug use and withdrawal or emotional struggles stemming from prior traumas, but these seemed to be highly normalized – almost performative – events for them. Indeed, as war machines, these men (as a band or pack) experienced and managed health with a completely different subjectivity because the health concerns they faced were only actualized (existed) within the context of chemsex subcultures. Thus, they may have had some pre-formed notions of health or risk, but their actual needs could not have been anticipated until they were bound together[156].

Within the glossy, polished surface of chemsex subcultures, participants could reach the freest form of exteriority; refusing the rough and often noisy spaces of health that previously imposed their movements (thoughts, actions, connections)[156,165]. Indeed, because war machines thrived on multiplicity and potentiality, these men could replace or re-route the connections of their flows in any given moment to avoid potential identification or capture (by the healthcare

system)[156]. That is, they would adjust their practices based on the actual or anticipated level of risk they determined might be present in their interactions with others to maintain their wellbeing. In this state, health was de-subjectified from the stable forces of the social or medical gaze, allowing participants to reach a state of bodily autonomy[156] – or, to reinvent themselves as drivers or advocates of their healthcare needs. The nomadic nature of war machines meant that these men had the space to improvise aspects related to health management[156]. In the context of chemsex subcultures, they often invented or created their own health strategies – which were in turn, passed down and adopted by other members in their pack. From this view, the value of health was represented in the collective care these men demonstrated toward one another, which became the inventive (resistant) trait of their war machine.

While health and risk management became an act of war for these men, the molar lines within their assemblages as HIV positive persons simultaneously acted as a force that kept them (invisibly) tethered to the State[155]. In this case, the infection itself became an *apparatus of capture*[155] – working to territorialize their free movements and pulling them back into a fixed path (function) in order to contain the viral flow of HIV. In other words, their ability to truly be free or to achieve a state of unencumbered imperceptibility was obstructed by the flows of their (social and medical) identity as an HIV positive person. Despite the fact that this forced identity had no real bearing inside chemsex subcultures, the apparatus of capture and its requirements (regulations) for medication adherence, viral load monitoring, and structured follow-ups with expert providers meant that parts of their desires, actions, and behaviours were continually being channelled back into socially and medically domesticated patterns, thus reinscribing this HIV positive identity[155].

The apparatus of capture worked in subtle ways for these men by giving them the illusion of freedom – for example, using long-acting injectable HIV treatment or scheduled follow-ups every six or twelve months instead of every three months. While this appeared to be a strategy to enhance healthcare autonomy, it also had an underlying function of control by seizing the flows of desire and by extension, the length of movements in and out of chemsex subcultures – as if

they were tied to a leash and only permitted a certain range of motion[155]. Essentially, the apparatus of capture aimed to subordinate war machines (as participants' engagement in healthcare and HIV treatment) into the bounds of *undetectability* (or *imperceptibility)* where they would be manageable, traceable, and compliant bodies[155,156]. That is, it was trying to make them 'good' (undetectable) HIV positive persons by ensuring they maintained some form of connection back to HIV care. And because HIV positivity was a molar component in participants' formations, they could become easily swayed into the powerful magic forces of the apparatus of capture (and its ability to become internalized and produced through social mechanisms of power)[155].

The socially imposed morality of HIV positivity is an important consideration for participation in chemsex. Where previous constructions of morality were based on HIV status (where persons living with HIV were seen as risky or damaged bodies for having acquired HIV in the first place), the emergence of medical findings, and subsequent uptake of anti-stigma campaigns within AIDS service organizations, regarding U=U[98] seems to have created a new form of social order regulating HIV positive bodies. In this construction of health and risk, being undetectable became a (social) norm marked by virtues of safety and desirability, whereas being detectable or the possibility of becoming detectable (e.g., missing medications due to chemsex) became the new indicator of transgression marked by vices of infectivity and (potential for) exposure. Within the apparatus of capture of HIV positivity, it would seem that efforts to address stigma using U=U may have redistributed stigma into a binary aimed at regulating (separating) 'good' (undetectable) versus 'bad' (detectable) HIV positive persons[223,224]. Undetectability thus became the molecular code that the apparatus of capture used to absorb war machines (efforts for self-management of health) into the clinical logic of governance, reterritorializing HIV positive GBMSM who engage in chemsex back into medical obedience[155,223,224].

As Deleuze and Guattari[155] would suggest, however, the act of capture does not eliminate the possibility for escape because each new assemblage of control produces new forms or opportunities for re-invention (for *becoming*). The continual potential for capture does lend some

potential explanation to participants' desire to remain fully immersed in chemsex subcultures as an attempt to disrupt the flows of control (to avoid being pulled back into HIV subjectivity). Indeed, while undetectability may have been a (social) badge of honor in the adjacent world, it did not seem to hold the same weight (force) within the smooth spaces of their subculture because HIV was normalized, even expected, in these formations[156]. Perhaps then, HIV (as it existed within the molar structures of the participants) should be considered as its own *war machine*. In this case, a machine that rebelled against the limits of State power and one that forced opportunities for reinvention. Specifically, this infection, their diagnosis, allowed them to create new affective relationships (meaningful connections) with other HIV positive men outside of the gaze of undetectability. Despite being a molar line in their bodily assemblages, the intensity of the lines of flight that pulsated through the flows of chemsex subcultures rearranged their HIV positive identity – allowing it to once again, become a connective and productive component[155,156].

Returning to the cyclical realities of chemsex, it would thus appear that HIV subjectivity (including participants' self-directed strategies for health management and risk reduction) was another fixed component within these revolutions. In this case, their diagnosis and the value they held for their own health and the health of those around them acted much like the second-hand dial of a clock – continually moving with time, space, and moments. While the infection itself, could be a form of capture (institutionalized, internalized, socialized within the healthcare system), they felt their health and safety was best maintained within their own processes[156]. That is, because the State existed outside of the limitless bounds of chemsex subcultures, participants felt that nobody external to their world could fully appreciate their experiences or their health needs. And so, they (as a collective, a pack, a *war machine)* banded together to develop the necessary tools to mitigate risks and protect the health of the cherished few within their circles[156].

Study Limitations

This critical ethnographic investigation into the lived realities of HIV positive GBMSM who engage in chemsex must be tempered against some of the limitations of this research study. First, while some components of the inclusion criteria for participation in this study were more specific (e.g., persons who identified as a man or guy who were living with HIV for at least twelve months and had recent experience with chemsex within the preceding twelve months), individuals could participate regardless of their sex assigned at birth or self-described sexual orientation. Despite the latter criteria being more open, all participants in this study identified as cis-male and almost all, listed their sexual orientation as gay. The experiences of participants (and coinciding research findings) might have differed had the sample included trans males or heterosexual MSM – particularly with respect to aspects of risk. This point is supported by research suggesting that individual contention around personal identity among trans and heterosexual MSM can be correlated with increased sexual risk-taking behaviours and lower levels of physical and mental health functioning, which could present alternate perspectives on motivations for engagement in chemsex[143,225-227]. Further research involving these specific sub-groups of MSM is required to gain a more robust comprehension of chemsex subcultures.

Second, participants who completed the self-administered questionnaire were asked to describe their ethnicity and over half identified as non-White – with the majority identifying as African, Caribbean, or Black. While some participants spoke of their experience as an ethnic minority, the study design did not accommodate for in-depth exploration into potential cultural differences related to HIV (in terms of diagnosis, management, or personal subjectivity) or differences in motivations for participation in chemsex. The study design also did not ask about participants' country of birth or experiences as a Canadian immigrant. Some research from the United States[228] has suggested that methamphetamine use may be influenced by socioeconomic status or community connection, some of which correlates to themes identified within this research. However, other research notes the layered effects of racism, homophobia, and HIV

stigma experienced by Black HIV positive GBMSM can produce different experiences on HIV management, mental health, and substance use engagement[229]. Additional research on chemsex subcultures would benefit from a more direct focus on the experiences of ethnic minority groups.

Third, while not explicitly asked in the self-administered questionnaire or during the interviews, all participants described being housed at the time of participating in this research study. It is possible that the findings (as they related to the research objectives) may have differed had this cohort of participants been underhoused or street involved. In this context, some of the values, norms, behaviours, and beliefs surrounding this practice may have been altered in the context of engagement in substance use as a means of coping or engagement in sexual practices as a means of survival (e.g., for housing, shelter, food, or money)[230]. While not intended to imply a hierarchy to chemsex participation, there may be nuances in the experience of persons who are underhoused and/or homeless that could affect group norms and their coinciding impact on health and risk-taking behaviours that may warrant further exploration.

Fourth, participants' statements may have been impacted by substance use (or lack thereof) during or preceding the interviews. Specifically, their perspectives regarding their engagement in chemsex or their level of engagement or forthcomingness about their experiences may have differed in the context of active or recent methamphetamine use. As previously noted by Alridge and Charles[202], intoxication can be a difficult state of mind to objectively measure. In the case of some participants, some form of intoxication may be their general (or normative) state. Only one participant specifically mentioned recent substance use – remarking to themselves about "wander[ing] off" on the interview questions and noting, "I was partying last night… so, you're getting the residuals". Regardless of their potential state of mind due to substance use, all participants were able to provide free and informed consent for participation in the research and were able to engage with the researcher for the duration of the interviews. None requested to end the interview early or withdrew consent for participation during these discussions.

Fifth, question 20 in the self-administered questionnaire did not provide an option for participants to indicate if they used substances through intra-anal administration. Per the literature review, this route of administration is most commonly reserved for GHB or mephedrone use[62] (where a moulded plastic tube containing a dosed amount of drug in liquid formation is inserted into the rectum); however, this would be considered missing data from the subset of participants who had indicated GHB or mephedrone as one of their preferred substances for chemsex.

Sixth, a sample size of n=11 participants for the self-administered questionnaire and n=14 participants for the interviews could be subject to scrutiny as a potential limitation of this study. It is worth noting that completing both aspects of the study were not required for participation and compensation. Regarding participation in the self-administered questionnaire, all participants were sent the SurveyMonkey link directly via email, and their completion was discussed during the review of the research consent form. It is possible that some participants had outright opted against completing the survey or had intended to complete this at a different time, but forgot to do so. The questionnaire itself was 34-questions and quite graphic and detailed in nature, which also could have been a reasonable deterrent to completion.

Regarding participation in the interviews, while a sample size of n=14 could be considered ‘small’, there is no minimum or maximum number of participants required to engage in meaningful ethnographic research[171,185]. Moreover, from a local perspective, rates of chemsex engagement among HIV positive GBMSM are relatively small compared to the overall number of GBMSM engaging in chemsex and the overall number of GBMSM in general[50,186]. As a result, the number of anticipated participants who would be willing to engage in a research study of this nature would be comparatively small. Lastly, in the absence of direct observations, the nature of the interviews were quite in-depth (note: the average interview was 71 minutes), which allowed the writer to become deeply immersed within the processes of data collection, analysis, and review (coding, recoding), thus ensuring theoretical saturation over the 14 interviews[170,189,190]. The main point

here, is that ethnographic research is less concerned about the size of a given group, and more focused on the depth and richness of data that can be uncovered through such investigations[171].

Finally, it is possible that the researcher's position as a straight woman could be viewed as a potential limitation to this study in terms of participants' willingness to disclose certain sexual or substance use behaviours. While positionality in this context of this study was previously discussed, it is relevant to re-iterate that this research was grounded in a critical theory framework – in which reality of both the researcher and the participants is shaped by historical realism (and the coinciding personal, political, and cultural values that accompany such a position), which in turn, influences ones perception of the world[37]. From this perspective, this researcher's sex, gender, or sexual orientation would have no greater or lesser bearing than if this study were to have been conducted by an alternate researcher of a differing sex, gender, and/or sexual orientation. In other words, the findings would have been *equally* affected regardless of who conducted the research, but with differing effects based on the historical context of that particular researcher and the dynamic they co-created with the participants[37]. Moreover, it is possible that the 'outsider' position of the researcher, as both a woman and a nurse, could have made participants more forthcoming in their responses knowing the researcher was not a direct peer. That is, in coming to the research with a naivety, could have gained additional information that might have been overlooked from an insider perspective; it provided a refreshed view of what life looked and felt like from the perspective of the participants and what this life meant to them[171].

Considerations for Nursing

Despite these limitations, the focus of, and findings from, this study provide some useful insights for nursing into the normative practices and the constructions of health and risk-taking behaviour among HIV positive GBMSM who are engaging in chemsex. As previously noted, this is a topic that, to date, has had little focus from a nursing perspective, so this work marks a starting point into incorporating greater focus on the intersecting dynamics of HIV status, mental health,

substance use, and addiction. These recommendations will be further detailed using four key pillars of nursing practice, including education, clinical practice, leadership, and research.

Education

Beginning with education, while recent adaptations to nursing training at the undergraduate have increasingly focused on mental health and addiction, nursing curriculum may benefit from a more fulsome review of STIs and HIV. As part of this education, it would be relevant to consider not only the pathophysiology of infection, but also (specific to HIV), the realities of living with HIV, including the mental, social, and cultural nuances of management. In nursing practice, there is often a perception that HIV testing or engagement with HIV positive persons occurs in more specialized areas (e.g., sexual health or infectious diseases clinics); however, the majority of HIV testing and diagnoses in Ontario occurs in primary or tertiary care settings[231] – meaning, they are not as far removed as might be assumed. As such, it would be useful for nurses to have a more comprehensive understanding of person-centered approaches to HIV counselling that is supportive, non-judgmental, and culturally responsive to individual patients' needs[232].

As chemsex prevalence continues ongoing in parts of Canada[48,49,233], and more locally, in Ottawa[50], it would also be important to consider instituting education and training sessions about chemsex, including (1) what this phenomenon is; (2) the experienced benefits of engagement for patients; (3) the potential personal, physical, and psychological effects of use; and (4) a review of supportive strategies to respond to the individual needs of patients who engage in chemsex. Collaborations with peers or persons with lived experience in chemsex (particularly GBMSM living with HIV) should also be considered to better elucidate the realities of participation and to shift knowledge exchange from (its current) risk-based or biomedical approaches to health.

Clinical Practice

From a clinical practice perspective, it would be useful to consider incorporating discussions about substance use and chemsex engagement into routine follow-up visits and offer relevant information and supports as needed. This would be a particularly beneficial approach for

patients who present for HIV/STI testing or HIV care, regardless of the clinical setting. Recognizing that individual patient needs will differ depending on their experience of reality in a given moment, implementing a brief assessment (check-in) as part of a standard of care, may provide patients with a sense of reassurance, knowing they can access information if they need or want to. In framing care from this angle, the emphasis of nursing interactions becomes less focused on surveillance metrics or intervention-based care (i.e., what the healthcare system wants for patients) and more about empowering patients to advocate for, and engage in, the aspects of healthcare that are relevant or important to them (i.e., what the patient wants).

Overall, clinical nursing practice would benefit from greater flexibility to patient care. It is important to recognize that the highly structured (hierarchical) nature of the healthcare system is not accessible to all patient groups. This is a particularly salient point for GBMSM living with HIV who engage in chemsex as they can often face intersecting stigmas within the context of the healthcare system[234,235] related to their sexual orientation, sexual and substance use practices, and HIV status, which can make it difficult for patients to disclose aspects of their reality to nurses or other providers. It is therefore important for nurses to divert thinking about this group of patients as 'hard to reach individuals' and to reconsider how healthcare structures (and by extension, the medicalization of the nursing process) instead, yield a 'hard to reach system'. *If patients are not engaging with their health – is this a failure of the patient or a failure of nurses to be available to them?* The point of this reflection is that nurses may need to adapt their practice, including how, where, and when, services are delivered to meet patients where they are at. Moreover, while clinical approaches, such as HIV treatment, STI testing, provision of harm reduction or safer sex materials, or linkages to mental health services can be beneficial to reduce patient suffering in the context of their lived realities, these may be construed as biomedicalization of patient bodies if the emphasis of nursing interactions is solely focused on providing *interventions*. As such, it would be important for nurses to practice in such a way that remains open and amenable to the individual needs of HIV positive GBMSM who engage in chemsex.

Leadership

Building on the spirit of meeting patients where they are at, administrators in various clinical care settings should consider developing informational resources to provide to patients during their interactions, as needed. Given that the majority of public health and web-based resources specific to chemsex are more risk-focused (NB: a quick Google search of the word "chemsex" brought forward several informational websites and video links with taglines discussing chemsex as a "silent crisis" or describing the "deadly effects" for people who engage in it), it would be useful to have accessible methods for patients to access accurate and non-judgmental information specific to chemsex. Moreover, with several participants in this study remarking that most of the information they learned was from other people in chemsex subcultures, it may be useful to provide factual and practical information for them to share within their networks. Relevant topics based on feedback from this particular group of participants might include aspects related to mental health (e.g., managing effects of withdrawal or psychosis), HIV treatment (e.g., how to support patients in taking HIV treatment during a chem binge), emotional health (e.g., long-term HIV coping), or personal health (e.g., how to support a peer, friend, or loved one who is experiencing challenges with chemsex). An important component in developing these resources would be to collaborate with local AIDS service organizations and/or persons with lived experiences to ensure the information is not strictly presented from a medical (or risk-based perspective). To that end, resources should provide information in a way that is accessible and incorporates the diverse perspectives of GBMSM living with HIV who engage in chemsex.

Research

The final consideration for nursing relates to the domain of research. The objectives for this study truly represented a starting point for nursing research – namely, to identify the subcultural norms of HIV positive GBMSM living with HIV and to examine their effect on health and risk-taking behaviours. As noted in the limitations, further research would be required to enhance understanding of the diversity of this group through more in-depth investigations into the

potential cultural differences across individuals of racial, ethnic, gender, and sexual minorities or from different socioeconomic backgrounds. Such investigations may provide new or alternate insights into engagement in chemsex outside of this group of gay men.

Further to that, it would be useful to return to the research findings with a more specific focus or objective on uncovering the healthcare, education, and support needs of patients with respect to their engagement in chemsex. Specifically*, what do patients require from nurses and how can nurses best meet these needs?* Within the context of nursing practice, it is easy for nurses to assume patients' realities from a historical perspective, but as this research has begun to uncover, there are nuances to these lived realities that, yield unique needs. In other words, the efforts of nurses to support GBMSM living with HIV who engage in chemsex are unlikely to be successful without a more fulsome understanding of what they require. Until such research is undertaken, we may continue to experience a disconnect in the nurse-patient relationship.

CONCLUSION

““A rhizome has no beginning or end; it is always in the middle, between things, interbeing, intermezzo.”

— **Gilles Deleuze & Felix Guattari**

The chemsex phenomenon is an experience of intensities marked primarily by its euphoric effects of sexual pleasure, substance use dysphoria, and personal and emotional connections. Much of the attention drawn toward chemsex focuses on its potential risks and harms; however, the increasing prevalence of this practice suggests it holds a deeper form of symbolism for those who participate in it. One such group, is HIV positive GBMSM who, in the context of chemsex, often face intersecting dynamics of HIV subjectivity, mental health, substance use and addiction. In light of these experiences and in the absence of any clear understanding of this group from a nursing perspective, the research objectives for this study sought to identify the inner workings of chemsex subcultures and to examine the effects of group norms on the health and risk-taking behaviours of GBMSM living with HIV who were engaging in chemsex.

Using a critical perspective helped to focus the research away from what was known or what was presumed about this group and to reorient perspectives toward the intricacies and experiences of their lived realities. This was an important approach to ensure this research did not replicate the dominant discourses that often paint chemsex participation in a negative or stigmatizing light, and by extension, problematize chemsex into a series of risks and harms. A review of the literature specific to substance use and administration, HIV management, and the potential risks and perceived benefits of chemsex revealed a myriad of overlapping factors or motivations for participation. However, with most of this research focusing on generalized cohorts of GBMSM, it could not explain how these components intersected for those living with HIV and

what meaning these spaces held for them. What was missing, was an understanding of how this group functioned as its own unique subculture.

To that end, a critical ethnographic study was designed and undertaken, using interviews as the only source of observation to develop an in-depth perspective on the subcultural dynamics of this group. To see that which could not be seen (directly observed) within the data required engaging in more rhizomatic perception: allowing the movements and actions to be heard within their statements and in the realm of the reality that was co-created within the context of the research itself. This perspective was maintained throughout the process of data analysis, where participants' feelings, expressions, and experiences were read, re-read, and subsequently categorized into three major themes based on the study objectives.

While there is no great shortage of literature specific to chemsex, the research revealed some unexpected findings related to engagement in chemsex among HIV positive GBMSM. Most notably, is that chemsex is often presented or discussed from two very polarizing perspectives. On the one side, there are some scholars who focus more on aspects of pleasure – framing chemsex as a form of liberation, expression, and excess (that it truly can be). On the other side, are the scholars who focus more on the consequential outcomes of chemsex – including the psychological or physical health indicators used to problematize engagement. For these participants, however, chemsex subcultures existed within a *milieu*. There were no binaries to their realities because their world did not exist within the black and white structures of the outside views. What might have been perceived (on the surface) as good or bad or ups or downs did not hold the same weight (categorizations) for the participants because it was part of their routine – and they were all aware of what that routine was. That is, they experienced the revolutions and cycles and flows of chemsex participation together – as a group or subculture.

This reflection is further explored within the words of Deleuze and Guattari[155, p35]:

> *Keep everything in sight at the same time—that a social machine or an organized mass has a molecular unconscious that marks not only its tendency to decompose but also the current components of its very operation and organization; that any*

> *individual caught up in a mass has his/her own pack unconscious, which does not necessarily resemble the packs of the mass to which that individual belongs; that an individual or mass will live out in its unconscious the masses and packs of another mass or another individual.*

Specifically, this passage speaks to the need to consider chemsex within its vast and multiple levels. Participation is not just about sex or drugs or addiction or escape. It is a mega machine, with macro, micro, and molecular flows, connections, assemblages, and machines operating in tandem[155]. However, even social machines of this magnitude or scale have unconscious processes flowing within them (either collectively or individually), leading to shifts, breaks, or changes in flow. And because chemsex subcultures were an all-encompassing machine, this meant that unconscious flows of one were carried by others, and in turn, carried by the group itself[155]. That is, as a subculture, these men were entangled by the invisible forces of their desires and their connections. While the majority of their reality seemed to function in the conscious reality, they were similarly (and perhaps unknowingly) driven by the unconscious forces that shaped both how they functioned – and how they collapsed[155]. Together, they had assembled into formation as they *became animal*; together, they navigated through the *interior* and *exterior* forces and flows of their community; and together; they became *imperceptible*[155].

Ultimately, this ethnographic investigation into chemsex subcultures uncovered a formation so closely bound together that it became nearly impossible to separate from. In reflecting on the findings, it became increasingly apparent that this mega machine – and the social machines by which they operated – may have been fueled by their unconscious desire for connection[155]. In the context of their experienced hardships and the weight of the assumed (social) identity and HIV subjectivity that they carried from the external world, having a community that would accept them without question, hesitation, or reservation would have been an addictive feeling. Moreover, because this group was so enmeshed in one another, they uniquely understood what they required in order to maintain their health (and by extension, reduce any possible risks related to chemsex participation) because it was part of the unconscious rules governing their flows[155].

Thus, one person's attempts for preservation of health and safety became their *collective* attempts for health and safety. They protected each other because they were connected to each other – thus fueling, propelling, catapulting the revolutions of chemsex participation.

All parts of chemsex subcultures fed back into the same process and this process had no beginning, middle, or end. As with the phases of change, the revolutions of chemsex engagement did not flow in a perfect circular motion: the size of their revolutions could be long or short, zigzagged, or run counterclockwise depending on their revolution of becoming[155]. What mattered at the end of the day, however, was that this group, this community, this culture was their own. In many ways, it was a safe haven against the (socially and historically imposed) sense of reality that existed in their periphery. No matter what effects attempted to pull them back to that place, they acted with forces of resistance – with lines of flight that made them *war machines*[155,156]. They were resilient. Ultimately, it is important, as nurses to both acknowledge and honor this resilience in our collective efforts to advocate for what this group needs and to make nursing practice malleable (adaptive, responsive) to their journeys of *becoming*.

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Appendix I: Self-administered questionnaire

uOttawa

Self-Administered Questionnaire

Chemsex among HIV sero-positive gay, bisexual, and other men who have sex with men (GBMSM)

Part 1: Sociodemographic Information

1. In what year were you born? _____

2. Which best describes your current gender?

- ❑ Trans man
- ❑ Trans woman
- ❑ Cis man (male born as male)
- ❑ Cis woman (woman born as woman)
- ❑ Gender non-conforming/non-binary with external genitalia/penis
- ❑ Gender non-conforming/non-binary with internal genitalia/vagina/front hole
- ❑ Intersex
- ❑ Other: _____

(Please list the term(s) you use to describe your gender)

3. What is your sexual orientation?

- ❑ Asexual
- ❑ Bisexual
- ❑ Gay
- ❑ Lesbian
- ❑ Heteroflexible
- ❑ Pansexual
- ❑ Straight
- ❑ Two-spirit
- ❑ Queer
- ❑ Other: _____

(Please list the term(s) that you use to describe your sexual identity and/or orientation)

4. What is the highest level of education you have achieved?

- ❑ Did not complete high school
- ❑ Completed high school
- ❑ College Diploma (general or professional)
- ❑ Bachelor's degree
- ❑ Honour's Degree
- ❑ Master's Degree
- ❑ Doctoral Degree
- ❑ Other, please specify _____

5. What was your income last year before taxes?

- ❑ Less than 25 000$
- ❑ 25 000$ - 44 999$
- ❑ 45 000$ - 64 999$
- ❑ 65 000$ - 84 999$
- ❑ 90 000$ or more
- ❑ Prefer not to say

6. What is your ethnicity?

- ❑ Black (e.g., African, Afro-Caribbean, African Canadian)
- ❑ Indigenous (First Nations, Metis, Inuit/Inuk)
- ❑ Arab/West Asian/North African (e.g., Egyptian, Iranian, Lebanese, Moroccan)
- ❑ Latin American (e.g., Mexican, Central/South American)
- ❑ South Asian (e.g., Bangladeshi, East Indian, Sri Lankan, Pakistani, Punjabi, Nepali)
- ❑ Southeast Asian (e.g., Filipino, Vietnamese, Cambodian, Thai, Indonesian, Laotian)
- ❑ East Asian (e.g., Chinese, Korean, Japanese, Taiwanese, Mongolian)

- ❑ Other (please specify): _____

Part 2: Health Information

HIV & HIV Treatment

7. In what year were you diagnosed with HIV? _____

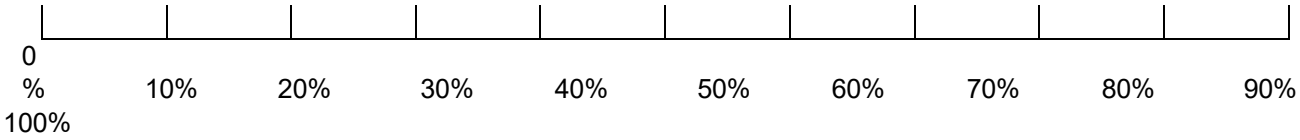
8. Do you regularly receive HIV follow-up from an Infectious Diseases specialist or primary care provider (e.g., physician, nurse practitioner)?

- ❑ Yes – I take treatment for HIV and complete follow-up every 3-12 months
- ❑ No – I have not had follow-up in the past 3-12 months, but I do take HIV treatment
- ❑ No – I have not had follow-up in the past 3-12 months

9. What type of treatment do you take for HIV?

- ❑ Oral medications taken daily
- ❑ Injectable medications taken monthly
- ❑ I am presently enrolled in a clinical trial for HIV treatment
- ❑ Not applicable
- ❑ Other: _____

10. If you take oral HIV treatment (pills), <u>mark an x</u> to indicate the percentage of medications you have taken in the past 30 days. *0%= no pills; 50% = half of the pills; 100% = all of the pills.*



11. When was the last time you missed a dose of your HIV treatment (pills or injections)?

- ❑ Within the past 2 days
- ❑ Within the past week
- ❑ Within the past month
- ❑ More than a month ago
- ❑ I never miss doses

12. What are some factors that influence your HIV treatment use? (check all that apply)

- ❑ I forget to take my medications
- ❑ I run out of my prescription
- ❑ I am high or drunk
- ❑ I am hungover or in withdrawal
- ❑ I get physical side effects from my medications
- ❑ I can't afford the cost of my medications
- ❑ I want to take a break from HIV treatment
- ❑ I am afraid/nervous to take my medications in front of others
- ❑ I experience mental health distress from taking my medications
- ❑ I feel too depressed/anxious to take my medications

Sexually Transmitted Infections

13. How often do you get tested for other STIs (e.g., chlamydia, gonorrhea, syphilis)? (check all that apply)

- ❑ Every 3 months
- ❑ Every 6-12 months
- ❑ I get tested as part of my routine HIV follow-up (at least every 12 months)
- ❑ At the start of a new relationship(s)
- ❑ Before chem parties
- ❑ After chem parties
- ❑ I only get tested when I have symptoms or if I am a contact of an STI
- ❑ It has been more than 12 months since my last STI screen

14. Have you been diagnosed with any of the following infections (check all that apply):

	Past 3 months	*Past 12 months*
Chlamydia	❑	❑
Gonorrhea	❑	❑
Syphilis	❑	❑
Lymphogranuloma vereneum (LGV)	❑	❑
Hepatitis B	❑	❑
Hepatitis C	❑	❑
Herpes	❑	❑
HPV – genital or anal/rectal warts	❑	❑
HPV – oral, penile, cervical, anal cancer	❑	❑
No / not applicable	❑	❑

15. How often do you use condoms for penetrative sex (e.g., anal, vaginal/fronthole) during chemsex or party-n-play (PnP) encounters?

- ❑ Never
- ❑ Less than half of the time
- ❑ Half of the time
- ❑ More than half of the time
- ❑ Always

16. What factors play into your decisions to engage in penetrative sex (e.g., anal, vaginal/fronthole) without a condom? (check all that apply)

- ❑ I prefer sex without condoms
- ❑ There were no condoms available
- ❑ I got caught up in the moment/I didn't want to ruin the mood
- ❑ I was high/intoxicated
- ❑ I am living HIV/AIDS and have an undetectable viral load
- ❑ My partner(s) reported using PrEP (pre-exposure prophylaxis)
- ❑ It was related to my role in the specific scene
- ❑ It was related to my general role as a submissive
- ❑ Love and/or commitment to my partner(s)
- ❑ Unsure
- ❑ Not applicable
- ❑ Other, please specify _____

Part 3: Chemsex or Party-n-Play (PnP) Practices

17. How often do you engage in sexual activity?

- ❑ Once a week
- ❑ 2-3 times per week
- ❑ 4-5 times per week
- ❑ 6-7 times per week
- ❑ Once a month
- ❑ 2 times a month
- ❑ 3 times a month
- ❑ Other: ____ (indicate #) times per year

18. What percentage of these sexual encounters involved chems/PnP?

- ❑ 100%
- ❑ 80-90%
- ❑ 60-70%
- ❑ 40-50%
- ❑ 20-30%
- ❑ <10%

19. How long is your average typical chemsex/PnP session or binge?

- ❑ One night
- ❑ A weekend (Friday-Sunday)
- ❑ One week
- ❑ 2-3 weeks
- ❑ 1 month
- ❑ 2-3 months
- ❑ More than 3 months

20. What is/are your preferred drug(s) for chemsex/PnP (check all that apply):

	Intravenous (inject)	*Inhale (smoke)*	*Snort (line, rail)*	*Oral (pill, liquid)*
Crystal meth	❑	❑	❑	❑
GHB/GHL	❑	❑	❑	❑
Mephedrone	❑	❑	❑	❑
Cocaine	❑	❑	❑	❑
Crack cocaine	❑	❑	❑	❑
Speed	❑	❑	❑	❑
MDMA/Esctasy	❑	❑	❑	❑
Ketamine	❑	❑	❑	❑
Alcohol	❑	❑	❑	❑
Erectile drugs/dick pills (Viagra, Cialis, 3TC)	❑	❑	❑	❑
Other: _____	❑	❑	❑	❑

21. Do you ever mix different types of drugs during chemsex/PNP? (check all that apply)

- ❑ Combination of meth + other stimulants
- ❑ Combination of meth + opiates
- ❑ Combination of meth + alcohol
- ❑ Combination of meth + erectile drugs/dick pills (Viagra, Cialis, Levitra, 3TC)
- ❑ I just stick to meth

22. Do you ever initiate sexual contact with the explicit intention of using chems?

- ❑ Yes – I seek out sexual partners I know have chems
- ❑ Sometimes – If chems are around, I might partake
- ❑ No – I don't enter into sexual encounters specifically for chems

22. Do you ever go to chemsex/PnP events with the explicit intention of having anonymous sex?

- ❑ Yes – I prefer to play with new guys (anonymous contacts, 'one night stands')
- ❑ Sometimes – I play with guys I know or with new guys (anonymous partners)
- ❑ No – I usually play with guys I know (friends, acquaintances)
- ❑ No – I mostly just hang out/watch/socialize

- ❑ Other: _____

24. Where do you usually meet your sexual partners for chemsex/PnP? (check all that apply)

- ❑ Dating or hook-up apps
- ❑ Bathhouse, saunas, sex clubs
- ❑ Bars, clubs
- ❑ Public places (parks, restrooms, etc.)
- ❑ Chemsex/PnP specific parties or events
- ❑ Private parties (hosted by myself or friends/acquaintances)
- ❑ Through friends/social groups
- ❑ Other (please specify):

  _____

25. What type of act(s) do you engage in during chemsex/PNP (check all that apply):

- ❑ I insert toys in my partner(s)
- ❑ Toys are inserted in me
- ❑ I use toys that I don't insert in my partner(s)
- ❑ Toys that are not inserted are used on me
- ❑ I rim my partner(s) (lick/suck the anus)
- ❑ I piss <u>on</u> my partner(s)
- ❑ My partner(s) piss <u>on</u> me
- ❑ I piss <u>in</u> my partner(s) (i.e. mouth)
- ❑ My partner(s) piss <u>in</u> me
- ❑ I shit <u>on</u> my partner(s)

- ❑ My partner(s) rim me
- ❑ I suck my partner(s)' penis (oral sex)
- ❑ My partner(s) suck my penis (oral sex)
- ❑ I fist my partner(s)
- ❑ My partner(s) fist me
- ❑ I whip/cane/flog my partner(s)
- ❑ My partner(s) whip/cane/flog me
- ❑ My partner(s) shit on me
- ❑ I shit in my partner(s) (i.e. mouth)
- ❑ My partner(s) shit in me
- ❑ I pierce/cut/brand my partner(s)
- ❑ My partner(s) pierce/cut/brand me
- ❑ I fuck my partner(s) (anal sex)
- ❑ My partner(s) fuck me (anal sex)
- ❑ Other (please specify): _____

26. What proportion of your chemsex activities involve the following:

	0% (None)	*25% (Some)*	*50% (Half)*	*75% (Most)*	*100% (All)*
One-on-one oral or anal sex with a partner	❑	❑	❑	❑	❑
Threesome (oral or anal sex with two partners)	❑	❑	❑	❑	❑
Group sex (oral or anal sex with 3+ partners)	❑	❑	❑	❑	❑
BDSM acts (with 1+ partners)	❑	❑	❑	❑	❑
Watching other people/groups have sex	❑	❑	❑	❑	❑
Socializing with others at parties	❑	❑	❑	❑	❑
Locating or purchasing chems	❑	❑	❑	❑	❑
Using chems/getting high	❑	❑	❑	❑	❑
Looking for other sexual partners (e.g., online)	❑	❑	❑	❑	❑
Looking for other chemsex/PnP parties	❑	❑	❑	❑	❑

27. Indicate the degree to which the following statements apply to you:

	do not agree	agree a little	agree moderately	agree a lot	agree totally
I use chems to enhance my sexual experiences	❑	❑	❑	❑	❑
I use chems only when they are given to me	❑	❑	❑	❑	❑
I can't have sex (get hard and/or cum) without chems	❑	❑	❑	❑	❑

I can't have fun without chems	❑	❑	❑	❑	❑
I use drugs to enhance my level of stimulation	❑	❑	❑	❑	❑
I prefer having sex while on chems	❑	❑	❑	❑	❑
I prefer partying or socializing while on chems	❑	❑	❑	❑	❑
I use chems to enhance my self-esteem	❑	❑	❑	❑	❑
I use chems to lose control	❑	❑	❑	❑	❑
I use chems to not remember what happens	❑	❑	❑	❑	❑
I use drugs to regulate my mood	❑	❑	❑	❑	❑
I use drugs to increase my climax	❑	❑	❑	❑	❑
I use chems to forget about or escape my problems	❑	❑	❑	❑	❑
I use drugs to socialize or fit in with others	❑	❑	❑	❑	❑

Part 4: Mental Health

28. How would your rate your mental health in the following instances?

	Excellent	*Good*	*Average*	*Fair*	*Poor*
Today or right now	❑	❑	❑	❑	❑
During chem use or binge	❑	❑	❑	❑	❑
In the 7 days after chem use or binge	❑	❑	❑	❑	❑

29. Have you ever been diagnosed with any of the following mental health conditions by a healthcare provider (e.g., physician, nurse practitioner, psychiatrist, etc.)? (check all that apply)

- ❑ Depression (e.g., major depressive disorder, dysthymia, disruptive mood dysregulation)
- ❑ Bipolar disorder
- ❑ Anxiety (e.g., generalized anxiety disorder, panic disorder, obsessive compulsive disorder)
- ❑ Post-traumatic stress disorder
- ❑ Eating disorder (e.g., anorexia, bulimia)
- ❑ Schizophrenia
- ❑ Schizoaffective disorder
- ❑ Drug-induced psychosis
- ❑ Neuro-cognitive disorder (e.g., Alzheimer's, dementia, traumatic brain injury)

- ❑ No / not applicable
- ❑ Other (please specify): _____

30. Do you suffer from any of the following mental health conditions that have <u>not been diagnosed</u> by a healthcare provider? (check all that apply)

- ❑ Depression (e.g., major depressive disorder, dysthymia, disruptive mood dysregulation)
- ❑ Bipolar disorder
- ❑ Anxiety (e.g., generalized anxiety disorder, panic disorder, obsessive compulsive disorder)
- ❑ Post-traumatic stress disorder
- ❑ Eating disorder (e.g., anorexia, bulimia)
- ❑ Schizophrenia
- ❑ Schizoaffective disorder
- ❑ Drug-induced psychosis
- ❑ Neuro-cognitive disorder (e.g., Alzheimer's, dementia, traumatic brain injury)
- ❑ No / Not applicable

- ❑ Other (please specify): _____

31. Have you ever used prescription medications to improve your mood or control mental health symptoms (prescribed by a healthcare provider)?

- ❑ Yes – I currently take medications that are prescribed to me for my mental health
- ❑ In the past – but not anymore (e.g., I ran out of meds, I didn't find they worked/helped)
- ❑ No – I have never taken prescription medications for my mental health

32. Have you ever used prescription-grade medications that were <u>not prescribed to you</u> or non-prescription drugs to improve your mood or mental health symptoms?

- ❑ Yes
- ❑ No

33. If you answered yes to the previous question, which medications or drugs do you use?

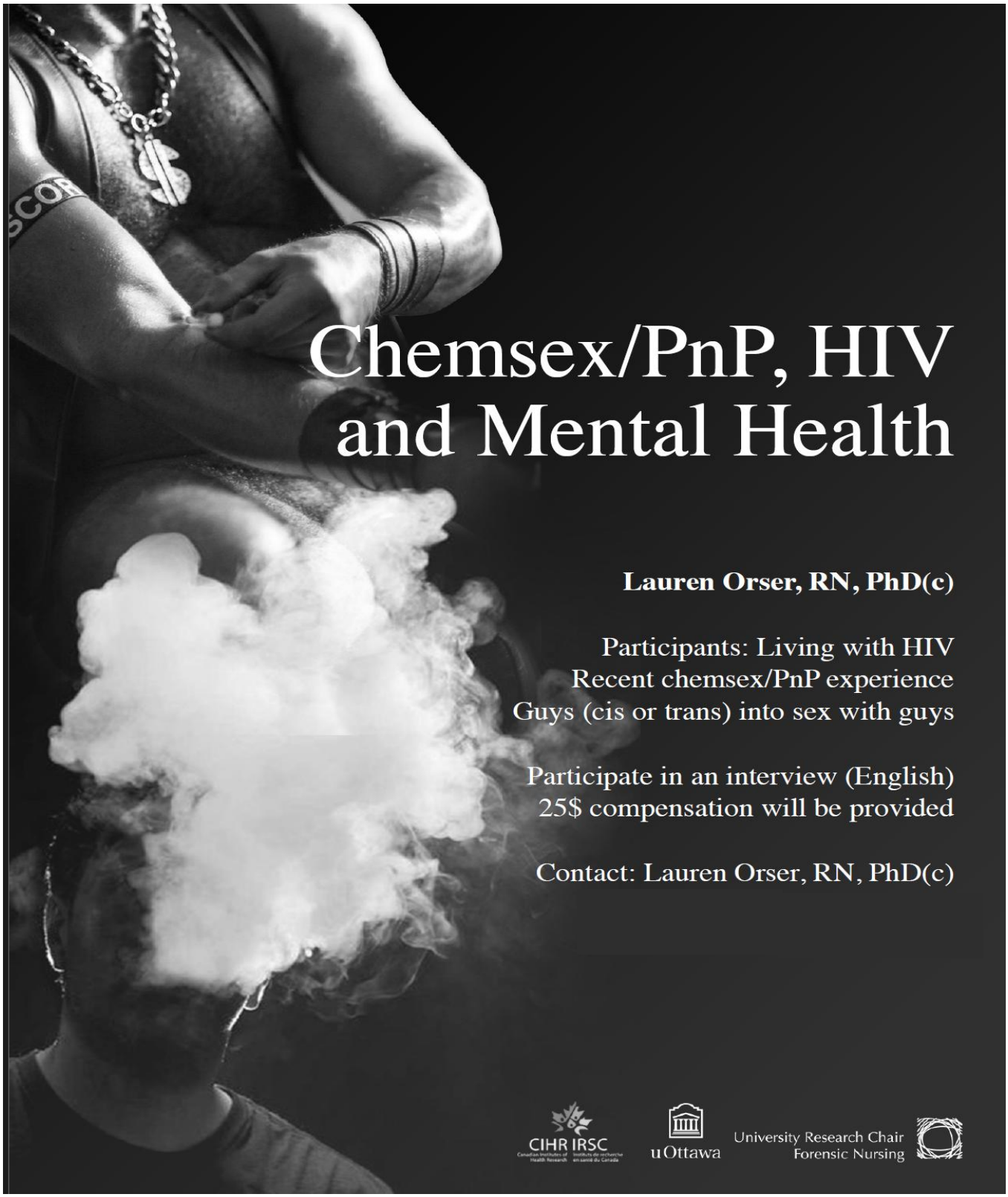
- ❑ Alcohol
- ❑ Marijuana
- ❑ Amphetamines (e.g., meth, speed)
- ❑ Uppers (e.g., MDMA, Cocaine, Crack)
- ❑ Sleeping pills (e.g., Ambien, Restoril)
- ❑ Opiates (e.g., Fentanyl, OxyContin)
- ❑ Benzodiazepines (e.g., Xanax, Ativan)
- ❑ Stimulants (e.g., Adderall, Ritalin)
- ❑ Anti-depressants (e.g., Prozac, Vyvanse)
- ❑ Other: _____

Part 5: Substance Use/Addiction

34. Indicate the degree to which the following statements apply to you in relation to your chem use over the past 12 months:

	do not agree	agree a little	agree moderately	agree a lot	agree totally
I need increasing amounts of chems to get high or feel an effect than I used to 12 months ago	❑	❑	❑	❑	❑
I have a persistent desire to stop or reduce my chem use	❑	❑	❑	❑	❑
I have had 1 or more unsuccessful attempts to stop or reduce my chem use	❑	❑	❑	❑	❑
A large portion of my day revolves around obtaining, using, or recovering from chems	❑	❑	❑	❑	❑
I experience persistent cravings for chems that impact my ability to focus or complete tasks	❑	❑	❑	❑	❑
My chem use stops me from meeting my personal or social obligations	❑	❑	❑	❑	❑
My chem use negatively impacts my social or interpersonal relationships	❑	❑	❑	❑	❑
My chem use negatively impacts my ability to engage in social, work, or family activities	❑	❑	❑	❑	❑
I have used chems in public/potentially dangerous spaces	❑	❑	❑	❑	❑
I continue to use chems despite knowing its potential risks	❑	❑	❑	❑	❑
I experience withdrawal symptoms when I stop or attempt to reduce my chem use	❑	❑	❑	❑	❑
I use chems to relieve or reduce my withdrawal symptoms	❑	❑	❑	❑	❑

Appendix II: Recruitment poster



Appendix III: Research consent form

Participant # ___

uOttawa

Université d'Ottawa
Faculté des sciences de la santé

École des sciences infirmières

University of Ottawa
Faculty of Health Sciences

School of Nursing

Research Consent

Title of Doctoral Research
Chemsex among HIV sero-positive gay, bisexual, and other men who have sex with men (gbMSM): *Exploring the intersection between sero-status, mental health, substance use, and addiction*

Researcher
Lauren Orser RN PhD(c)
Doctoral Candidate
University of Ottawa, School of Nursing

Research Supervisor
Dr. Dave Holmes RN PhD FAAN FCAN
Full Professor
University of Ottawa, School of Nursing

Research Objectives
1. Identify the dynamics, values, behaviours, and beliefs of HIV-positive gbMSM engaging in chemsex;
2. Examine how chemsex can affect social/healthcare needs and risk-taking behaviours

Description of Participation

Participant Contribution: As part of this research, you will be asked to (1) complete a 15-20 minute questionnaire (consisting of 33 questions) regarding your demographic information, health, chemsex practices, mental health, and substance use and (2) participate in a 60-90 minute interview. This interview will be done either in person or virtually (online) based on your preference and will be conducted once.

Questionnaire: Prior to your interview, you will be given a self-administered questionnaire. If you are participating in an in-person interview, a paper copy of the questionnaire will be given to you to complete. If you are participating in a virtual interview, a survey link will be sent to you via e-mail to complete (hosted through SurveyMonkey).

In-person interviews will be conducted at the Sexual Health Clinic (179 Clarence St. Ottawa, ON) or the University of Ottawa (75 Laurier Ave. E Ottawa, ON) and will be digitally audio-recorded. You may be asked to complete an assessment of COVID-19 specific-symptoms and may be asked to wear a medical grade mask during the interview or take additional precautions based on provincial COVID-19 protocols and guidelines.

Virtual interviews will be conducted over MS Teams and will be video recorded. You may choose to turn off your camera during these interviews. For virtual participation, you will need to find a private location to meet where you can openly respond to questions. The researcher asks this not be done in public spaces or around others due to the nature of interview questions.

☎ 613 562-5473
613 562-5443

451 Smyth
Ottawa ON K1H 8M5 Canada

www.uOttawa.ca

Participant # ___

For virtual participation, you will need to find a private location to meet where you can openly respond to questions. The researcher asks this not be done in public spaces or around others due to the nature of interview questions.

You may choose to end participation in the questionnaire or interview at any point, regardless of whether this is done in-person or online. You may also choose to decline to answer any of the questions posed to you in the survey or during the interview at any time.

Potential Risks Associated with Participation: The questionnaire and interview will ask questions regarding your physical and mental health, personal experiences, and sexual and drug using practices. The researcher is aware these discussions may be potentially triggering – and may cause discomfort, distress, or suffering. Should you require additional supports after the interview, the researcher will provide you with resources to local counselling/support services, including:

- *Chemsex and mental health supports:* MAX Ottawa – 613.701.6555 or www.maxottawa.ca
- *Mental health supports:* Ottawa 24/7 Crisis Line – 613.722.6914
- *HIV supports*: AIDS Committee of Ottawa – 613.238.5014
- *HIV care referrals:* Sexual Health Clinic – 613.234.4641
- *Addiction supports*: Ottawa Addiction Access and Referral Services – 613.241.1525
- *Legal supports*: HIV/AIDS Legal Clinic of Ontario (HALCO) – 1.888.705.8889 or www.halco.org

Potential Benefits Associated with Participation: By participating in this research, you will be contributing to research in public health nursing in an area that has not previously been well explored. The insights you provide through your participation can be used to increasing awareness and understanding of long-term HIV coping, mental health, substance use, addiction, and the experiences of participating in chemsex networks. The insights you provide during this research could be applied to help improve health and social services for you and your peers.

Declaration of Potential Conflicts of Interest: The researcher holds employment as a registered nurse with Ottawa Public Health, Sexual Health and Harm Reduction Services Unit where she is involved in assessment and follow-up of sexually transmitted and blood borne infections, including HIV. This research is being conducted independently from Ottawa Public Health and its affiliated clinics. No information provided to the researcher before, during, or after the interviews will be shared with Ottawa Public Health or subsequently used for the purposes of health protection follow-up.

Rights of the Research Participant

Confidentiality and Anonymity: If you choose to participate in this research, strict confidentiality will be maintained. For the research, you will be assigned a numerical code known only to the researcher to ensure no personal or identifying information can be linked to you in any publications of this research. By agreeing to participate in the interview portion of the research, you are also providing consent to be quoted in scientific publications (articles) or conferences. All quotes will be labelled with your assigned alphanumerical code. You are also aware that some of the insights provided from your interviews may be shared for teaching or learning purposes.

Limits of Confidentiality: In situations where you express thoughts or intentions of suicide, self-harm, or harm to others, your confidentiality and anonymity cannot be maintained. In these circumstances, the researcher may need to reveal personal information to emergency providers to ensure you are connected to urgent care and supports.

Conservation of Information: Survey data will be compiled in a password protected file on the researcher's password protected computer. Audio and video recordings will be kept in a password

Participant # ___

protected folder on the researcher's password protected computer. Following the completion of the interview, recordings will be transferred to a password protected USB key. All paper-based and USB stored survey and interview materials will be stored in a locked filing cabinet in the research supervisor's office at the University of Ottawa for a period of 7 years. If you choose to withdraw from the study, your information will be confidentially destroyed.

Compensation for Participation: By agreeing participate in this research, you will receive a $25 CAD Mastercard ® gift card, which will be provided to you after the interview is completed. If your interview is done online, this will be e-mailed to you. You will receive the full compensation regardless of if you choose to withdraw from the interview or if you decline to respond to some of the questions posed.

Funding Agency: The researcher holds a Vanier Scholarship in Infection and Immunology from the Canadian Institutes of Health Research (CIHR).

Additional Questions, Comments, or Concerns: If you have any questions about the study, you may contact the researcher or her supervisor. If you have any questions regarding the ethical conduct of this study, you may contact the Office of Research Ethics and Integrity via email (ethics@uottawa.ca) or telephone (613.562.5387). It is recommended that you save a copy of this consent form for your records.

Signed Agreement of Acceptance

I give my consent to participate in a self-administered questionnaire	❑ **Yes**	❑ **No**
I give my consent to participate in an interview	❑ **Yes**	❑ **No**
I give my consent to be audio or video recorded during the interview	❑ **Yes – Audio**	❑ **No**
	❑ **Yes – Video**	

Participant's initials or pseudonym: _____ Date: _____

Researcher's signature: _____ Date:_____

Verbal Agreement of Acceptance (for in-person or virtual meetings)

- ❑ Verbal consent obtained to participate in an online self-administered questionnaire
- ❑ Verbal consent obtained to participate in an online interview
- ❑ Verbal consent obtained to be **audio** recorded during the interview
- ❑ Verbal consent obtained to be **video** recorded during the interview

Researcher's signature: _____ Date: _____

Appendix IV: Interview prompts

Interview prompts

Chemsex among HIV sero-positive gay, bisexual, and other men who have sex with men (GBMSM)

Topic	
Chemsex	○ Can you describe how a typical chemsex or 'party n play' (herein: PnP) session operates for you? How long is your typical party or binge? ○ What motivated you to start engaging in chemsex/PnP? ○ What are your preferred venues or spaces to engage in chemsex or to party? Why? ○ Who (what type of partners) needs to be present during a chemsex party/binge for it to be pleasurable or worth while attending? • Are there certain characteristics of sexual partners that make your participation more likely or enhance your experience? ○ To what extent would you consider chemsex/PnP to be a social activity? • Do you feel a sense of community within these spaces? • If so, what meaning does this have for you? • Have you ever developed relationships (e.g., sexual, drug use, friendship, romantic) with partners outside of chemsex-specific parties/events? • If so, how, and why did these relationships develop? What changed from chemsex-specific parties/events to those outside of chemsex spaces? ○ Can you describe in detail the type of sexual and/or drug-using practices you engage in during chemsex/PnP? • What are the pleasurable parts of these practices? • In what ways does chemsex add to or enhance your sexual experiences? • What type of role do you prefer your sexual partners play during chemsex/PnP sessions? • Is there an expectation that sexual partners also be using chems during sexual encounters? If so, what effect does this have on your overall sexual experience? ○ To what extent would you consider these sexual and/or drug using activities to be 'risky'? • Does the idea of 'risk' influence or spark your interest in participation in chemsex/PnP activities? Why or why not? • What strategies do you take to reduce these risks? ○ What does engagement in chemsex/PnP mean to you? • What are some of the good or positive aspects about chemsex/PnP participation? • During chemsex sessions, do you feel like you can be yourself or do you find you take on a different persona in these spaces? Tell me more about this.

	• Have you ever had any negative experiences with chemsex /PnP? If so, tell me more about these.
HIV	○ When were you first diagnosed with HIV? ○ How would you describe your overall health living with HIV? ○ Are you engaged in HIV treatment or care? • If yes, what keep you motivated to stay in care? • If no, what are some barriers you experience to care? ○ Tell me about what it's been like managing an HIV diagnosis (i.e., from when you were first diagnosed compared to how things are for you now)? • Are there times when it's been easier managing HIV? Why or why not? • Are there times when it's been harder or more stressful living with HIV? If so, tell me more about this. ○ Do you feel that your participation in chemsex is in any way motivated by your HIV status or diagnosis? Why or why not?
Mental Health	○ How would you describe your overall mental health? ○ Do you ever suffer from periods of low mood (e.g., depression, anxiety, etc.)? If so, what is that experience like for you? ○ Have you ever experienced episodes of manic or psychotic mood (e.g., intense energy, visual or auditory hallucinations)? If so, what was that experience like for you? ○ If you have experienced issues with your mental health in the past, have you ever seen a healthcare provider for this? • If yes, what keeps you motivated to participate in mental health care? • If no, what are some barriers you experience to participating in mental health care? What would help improve this? ○ To what extent has your HIV status or diagnosis affected your mental health? Do you find this is improved or worsened since first being diagnosed? Tell me more about this. • Do you ever talk about your mental health with your HIV provider or nurse? Why or why not? • What healthcare setting do you think would be best to address aspects related to your mental health? ○ To what extent do you feel like your participation in chemsex / PnP is impacted or affected by your mental health? • Do you ever turn to chems or sexual encounters during periods where your mood is low or high? Why or why not? Tell me more about this. ○ Do you find that chems have a lasting effect on your mental health? Is your mood different during chem use compared to after chem use? Has this changed over time/prolonged use?
Substance use /Addiction	○ How often would you say you use meth/chems in a month? • What are some of the positive aspects about using meth/chems? What do you like most about these drugs?

	• Have you ever had a 'bad trip'/high or overdosed while on meth/ chems? If so, tell me more about this. ○ To what extent would you say that you seek out social or sexual activities because you know meth/chems will be involved? • Do you find that meth/chems affects your ability to participate in social, work, or family life? Why or why not? ○ Have you ever experienced withdrawal from meth/chems? If so, describe what a typical 'comedown' is like for you. • Have you ever had a particular 'bad comedown' from meth/ chems? If so, tell me more about this. • Are there any strategies you use to make your 'comedown' or withdrawal symptoms better? If so, describe these. ○ Have you ever considered your meth/chem use to be a problem for you? • Have you ever tried to cut back or stop your meth/chem use? • If so, what was that experience like for you? What helped or didn't help? • If not, what are some barriers you experience to reducing or stopping your meth use? ○ To what extent has your HIV status or diagnosis affected your meth/chem use? Do you find this is improved or worsened since first being diagnosed? Tell me more about this. • Do you ever talk about your meth/chem use with your HIV provider or nurse? Why or why not? • What healthcare setting do you think would be best to address aspects related to your meth/chem use?

Appendix V: Ethics approval

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

University of Ottawa
Office of Research Ethics and Integrity

H-03-22-7914 - REG-7914 - Certificat d'approbation éthique / Certificate of Ethics Approval

(English message follows)

Cher/Chère Lauren Orser,

Veuillez trouver ci-joint le certificat d'approbation éthique pour le projet intitulé «Chemsex among HIV sero-positive gay, bisexual, and other men who have sex with men (gbMSM): Exploring the intersection between sero-status, mental health, substance use, and addiction. ».

Le certificat est valide jusqu'au : 03-05-2023

Recherche financée : veuillez faire suivre une copie du certificat au Service de gestion de la recherche.

Si vous avez des questions, n'hésitez pas à communiquer avec le Bureau d'éthique à ethique@uottawa.ca ou en composant le 613-562-5387.

Vous pouvez voir votre demande en vous connectant à votre compte eReviews.

Cordialement,

Kim Thompson
Responsable d'éthique en recherche

Ceci est une réponse automatisée, merci de ne pas répondre à ce courriel.

Dear Lauren Orser,

Please find attached the certificate of ethics approval for your research project titled "Chemsex among HIV sero-positive gay, bisexual, and other men who have sex with men (gbMSM): Exploring the intersection between sero-status, mental health, substance use, and addiction. ".

This certificate is valid until: 03-05-2023

Funded research: A reminder that you must provide a copy of this certificate to Research Management Services.

If you have any questions, please contact the Ethics Office at ethics@uottawa.ca or by telephone at 613-562-5387.

You can view your project at any time by logging into eReviews.

Best regards,

Kim Thompson
Protocol Officer

This is an automated message. Please do not reply directly to this email.

Attachement(s) / Attachment(s)
approvalLetter1651690649287.pdf

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

550 Cumberland Street, Room 154
Ottawa, Ontario K1N 6N5 Canada

613-562-5387 • 613-562-5338 • ethique@uOttawa.ca / ethics@uOttawa.ca
www.recherche.uottawa.ca/deontologie | www.recherche.uottawa.ca/ethics

Appendix VI: Questionnaire results

Eleven of the 14 research participants completed the self-administered survey. One participant completed this in person (on paper), and these results were later transcribed into SurveyMonkey for data maintenance and analysis.

Demographic data

For age, ten of the 11 participants provided their year of birth. Age was determined by subtracting year of birth from year of participation to give an approximate average age of the participants, which was 44 years of age (range: 28 - 67 years of age). The same process occurred for length of HIV diagnoses (where year of diagnosis was subtracted from year of participation to determine average length of HIV infection among all participants, which was 13 years (range: 2 - 29 years). Additional demographic data collected was summarized as follows:

	Frequency (n)	**Percentage (%)**
Current gender		
Cis-male	10	91%
Non-binary	1	9%
Sexual orientation		
Gay	10	90%
Bisexual	1	10%
Race		
Black	5	45%
White	4	36%
Indigenous	1	9%
Arab/West Asian	1	9%
Latin American	0	0%
South Asian	0	0%
Southeast Asian	0	0%
East Asian	0	0%
Level of education		
High school	3	27%
College diploma	2	18%
Bachelor’s degree	5	45%
Prefer not to say	1	9%
Income		
< $25,000	4	36%
$25,000 – 44,999	2	18%
$50,000 – 64,999	2	18%
$65,000 – 84,999	1	9%
$85,000 or more	0	0%
Prefer not to say	1	9%

Engagement in HIV care

Almost all participants (n=10/11) reported currently using HIV treatment, with 80% (n=8/10) reporting having follow-up with their HIV providers every 3-12 months. The majority of participants who were taking treatments reported using daily oral antiretroviral therapy (n=8/10), while the other two participants reported using injectable (long-acting) treatment. Of those using daily oral medications, the average number of medications taken in the preceding 30 days was ~84% (average). All participants who were using HIV treatment responded to the question about when they had last missed a dose or injection of medication: 20% (n=2/10) indicated 'never'; 10% (n=1/10) reported more than one month ago; 20% (n=2/10) reports within the past month; 40% (n=4/10) reported within the past week; and 10% (n=1/10) reported within the past 2 days.

In terms of factors that affected medication use, participants indicated the following:

	Frequency (n)	Percentage (%)
I forget to take my medications	7	70%
I ran out of my prescription	0	0%
I am high or drunk	5	50%
I am hungover or in withdrawal	2	20%
I get physical side effects from my medications	1	10%
I can't afford the cost of my medications	1	10%
I want to take a break from HIV treatment	0	0%
I am afraid/anxious to take my medications in front of others	2	20%
I experience mental health distress from taking my medications	1	10%
I feel too depressed/anxious to take my medications	3	30%

Health behaviours

For STI testing practices, participants reported engaging in STI screening with mixed frequency. Most commonly, participants reported accessing STI screening at the same time as they completed their HIV care follow-ups (n=6). Less than half (n=4) reported completing testing every 3-12 months, while other reported testing at the beginning of new relationships (n=2), after chem parties (n=1), or only when they had symptoms or were a contact of a possible STI (n=2). One participant noted it had been more than 12 months since their last STI screen. No participants reported engaging in screening before chemsex parties.

In terms of STI diagnosis history, participants reported a prior history of chlamydia, gonorrhea, and syphilis at a count of n=5 for each infection. In most cases (80%), these diagnoses had occurred in the past 12 months (count of n=1 for each infection in the past 3 months). Additionally, there were 3 reports of LGV, 2 reports of hepatitis B, 3 reports of hepatitis C, and 3 reports of HPV (as genital and/or ano-rectal warts and oral, penile, cervical, or anal cancer). In all cases, these were reported as historical diagnoses (occurring more than 3 months prior). In terms of condom use, 36% (n=4/11) of participants reported 'never' using condoms during chemsex and 55% (n=6/11) reported using condoms less than half of the time in these encounters. Only one participant reported using condoms with every sexual contact.

Reasons for using or not using condoms were captured by participants as follows (NB: in this question, participants could select all of the factors that might have been relevant to them):

	Frequency (n)	Percentage (%)
I prefer sex without condoms	6	55%
There were no condoms available	1	9%
I get caught up in the moment/didn't want to ruin the mood	3	27%
I was high/intoxicated	5	45%
I am living with HIV and have an undetectable viral load	8	73%
My partner(s) reported using PrEP	4	36%
It related to my role in the specific scene	1	9%
It relates to my general role as a submissive	1	9%
Love and/or commitment to my partner(s)	2	18%
Unsure	1	9%
Not applicable	2	18%

Chemsex practices

Participants were asked to respond to a series of questions regarding their typical engagement in chemsex, including frequency of sexual contact (and what percentage of those contacts involved chems), and duration of chemsex sessions. These results are summarized as follows:

	Frequency (n)	Percentage (%)
Frequency of sexual activity		
Once / week	4	36%
2-3 times / week	3	27%
4-5 times / week	1	9%
6-7 times / week	1	9%
One / month	0	0%
2 times / month	2	2%
3 times / month	0	0%
Percentage involving chems		
100%	4	36%
80-90%	4	36%
60-70%	1	9%
40-50%	1	9%
20-30%	0	0%
<10%	1	9%
Length of typical chemsex session		
One night	3	27%
A weekend	4	36%
One week	1	9%
2-3 weeks	1	9%
1 month	1	9%
2-3 months	0	0%
More than 3 months	0	0%
Ongoing	1	9%

Participants were given a list of common substances used during chemsex and asked to indicate their preferred substances. The most preferred was crystal meth (n=9) and GHB (n=7). The use of MDMA/ecstasy, ketamine, and cocaine was reported at a frequency of n=6 and the use of crack cocaine, speed, and alcohol was reported at a frequency of n=5. The use of erectile dysfunction medication was also reported at a frequency of n=8 by the participants. Smoking or snorting was most the most common mode of administration. Of those who reported intravenous injection, the most common reported substance of use was crystal meth (n=3). Eight of the 11 participants reported mixing crystal meth and other substances: 62% (n=5/8) mixed with alcohol, 50% (n=4/8) mixed with other substances and/or erectile dysfunction medications, and 25% (n=2/8) mixed with opiates. The remaining 4 participants either reported only using crystal meth (n=1) or not using crystal meth at all (n=3).

In terms of sexual practices, 73% (n=8/11) reported initiating sexual contact with the express purpose of using chems, while 18% (n=2/11) reported this was 'sometimes' the case – and would partake if chems were around/available. Participants were also asked to rate how often they participated in chemsex with the explicit intention of engaging in anonymous sex. On that, 18% (n=2/11) indicated yes, 55% (n=6/11) indicated sometimes, and 27% (n=3/11) indicated no. For those who said no, 1 indicated they only engaged with people they knew, while the other 2 participants indicated the mostly attended chemsex parties to socialize or observe encounters.

Participants were also asked to indicate the various places they met their partners for chemsex for which, they could select as many factors as possible (as it applied to them). These results indicated the most common avenue for meeting partners was through dating or hook-up aps, (reported by n=9, followed by friends/social groups, or private parties (reported by n=6 for each), and bathhouses or chemsex-specific events (reported by n=5 for each). Meeting partners on websites (e.g., Craigslist), in bars or clubs, or in public places (such as washrooms or parks) were reported by n=2 or less.

For sexual practices during chemsex sessions, participants reported the following:

	Frequency (n)	**Percentage (%)**
I insert toys in my partner(s)	6	55%
Toys are inserted in me	1	9%
I use toys that I don't insert in my partner(s)	2	18%
Toys that are not inserted are used on me	3	27%
I rim my partner(s) (lick/suck the anus)	8	73%
My partner(s) rim me	5	45%
I suck/lick my partner(s)' penis/genitals (oral sex)	9	82%
My partner(s) suck/lick my penis/genitals (oral sex)	10	91%
I fist my partner(s)	2	18%
My partner(s) fist me	0	0%
I whip/cane/flog my partner(s)	4	36%
My partner(s) whip/cane/flog me	1	9%
I piss on my partner(s)	4	36%
My partner(s) piss on me	2	18%
I piss in my partner(s) (i.e. mouth)	2	18%

My partner(s) piss in me	1	9%
I shit on my partner(s)	0	0%
My partner(s) shit on me	0	0%
I shit in my partner(s) (i.e. mouth)	0	0%
My partner(s) shit in me	0	0%
I pierce/cut/brand my partner(s)	1	9%
My partner(s) pierce/cut/brand me	0	0%
I fuck my partner(s) (anal, vaginal, fronthole sex)	8	73%
My partner(s) fuck me (anal, vaginal, fronthole sex)	4	36%

All participants who completed the survey responded to the question asking what proportion of their chemsex activities involved the following acts and how often these factors applied to them. Responses for this question were tabulated as follows:

	None	**Some**	**Half**	**Most**	**All**	**Total**
One-on-one oral or anal sex with a partner	0 (0%)	1 (10%)	2 (20%)	4 (40%)	3 (30%)	10
Threesome (oral or anal sex with 2 partners)	0 (0%)	4 (40%)	3 (30%)	1 (10%)	2 (20%)	10
Group sex (oral or anal sex with 3+ partners)	1 (11%)	3 (33%)	2 (22%)	2 (22%)	1 (11%)	9
BDSM acts (with 1+ partners)	2 (22%)	4 (44%)	0 (0%)	1 (11%)	2 (22%)	9
Watching other people/groups have sex	1 (11%)	3 (33%)	2 (22%)	2 (22%)	1 (11%)	9
Socializing with others at parties	1 (11%)	2 (22%)	4 (44%)	2 (22%)	0 (0%)	9
Locating or purchasing chems	3 (33%)	5 (56%)	1 (11%)	0 0%	0 (0%)	9
Using chems/getting high	1 (11%)	2 (22%)	4 (44%)	2 (22%)	0 (0%)	9
Looking for other sexual partners (e.g., online)	0 (0%)	2 (25%)	4 (50%)	2 (25%)	0 (0%)	8
Looking for other chemsex/PnP parties	2 (22%)	1 (11%)	5 (56%)	0 (0%)	1 (11%)	9

Participants were then asked to respond to a question about their use of chems for sex and overall participation in chemsex by responding to the degree of agreement with the statement (ranging from ‘do not agree at all’ to ‘agree completely’). Total responses in each category were n=11, except for the question ‘*I use chems to enhance my self-esteem*’, which was responded by n=10 participants. Responses to this question were as follows:

	None	**Little**	**Moderate**	**A lot**	**Totally**
I use chems to enhance my sexual experiences	0 (0%)	0 (0%)	0 (0%)	5 (45%)	6 (55%)
I use chems only when they are given to me	5 (45%)	0 (0%)	2 (18%)	3 (27%)	1 (9%)

I can't have sex (get hard and/or cum) without chems	4 (36%)	3 (27%)	1 (9%)	2 (18%)	1 (9%)
I can't have fun without chems	3 (27%)	1 (9%)	3 (27%)	3 (27%)	1 (9%)
I use drugs to enhance my level of stimulation	1 (9%)	0 (0%)	3 (27%)	4 (36%)	3 (27%)
I prefer having sex while on chems	1 (9%)	1 (9%)	2 (18%)	2 (18%)	5 (45%)
I prefer partying or socializing while on chems	3 (27%)	2 (18%)	1 (9%)	2 18%	3 (27%)
I use chems to enhance my self-esteem	3 (30%)	1 (10%)	1 (10%)	1 (10%)	4 (40%)
I use chems to lose control	2 (18%)	1 (9%)	4 (36%)	2 (18%)	2 (18%)
I use chems to not remember what happens	6 (55%)	1 (9%)	0 (0%)	2 (18%)	2 (18%)
I use drugs to regulate my mood	2 (18%)	2 (18%)	3 (27%)	2 (18%)	2 (18%)
I use drugs to increase my climax	2 (18%)	4 (36%)	1 (9%)	2 (18%)	2 (18%)
I use chems to forget about or escape my problems	4 (36%)	1 (9%)	1 (9%)	3 (27%)	2 (18%)
I use drugs to socialize or fit in with others	2 (18%)	3 (27%)	1 (9%)	3 (27%)	2 (18%)

Mental health

In the last section, participants were asked to discuss aspects related to their mental health. In terms of overall mental health, the participants were asked to rate their mental health (from poor to excellent) currently, during a chemsex binge, and in the week following a chemsex binge. All 11 participants responded to this question; however, only 10 responses were received for the period during a chemsex binge. These results were as follows:

	Poor	**Fair**	**Avg**	**Good**	**Excellent**
Today or right now	1 (9%)	2 (18%)	2 (18%)	4 (36%)	2 (18%)
During a chemsex binge	1 (10%)	2 (20%)	1 (10%)	4 (40%)	2 (20%)
In the 7 days post chemsex	3 (27%)	1 (9%)	6 (55%)	1 (9%)	0 (0%)

Nine of the 11 participants (82%) reported having a prior history of mental health diagnosis or diagnoses from a healthcare provider. The most common mental health condition was post-traumatic stress disorder which was reported by 66% (n=6/9), followed by anxiety and depression which were reported by 55% (n=5/9 for each category), and eating disorders, which were reported by 44% (n=4/9). Prior diagnoses of bipolar disorder, drug-induced psychosis, and childhood trauma were reported by n=2 or less participants. None reported a prior history of schizophrenia, schizoaffective disorder, or neurocognitive disorders.

The same categories were provided, and participants were asked to report if they were contending with any of the foregoing conditions that were not diagnosed by a healthcare provider. Ten of the 11 participants responded to this question, of whom, 60% (n=6) indicated none applied to them. The remaining 4 participants reported managing symptoms of anxiety, post-traumatic stress disorder, drug-induced psychosis at a count of n=2 and depression and eating disorders at a count of n=1. Similar to the diagnosed conditions above, no participants reported contending with schizophrenia, schizoaffective disorder, or neurocognitive disorders. In contrast to the question above, none reported symptoms of bipolar disorder.

Participants were also asked to respond about whether they had ever used prescription medications (prescribed by a healthcare provider) to manage their mental health symptoms. All participants responded: 36% (n=4/11) indicated they currently used prescription medications for mental health; 36% (n=4/11) indicated they had used prescription medications in the past, but not currently; and 27% (n=3) indicated they had never used prescription medications to manage their mental health conditions or symptoms of their mental health condition.

Similar to this question, participants were asked whether or not they used non-prescription medications to improve their mood or mental health symptoms: 45% (n=5/11) indicated ‘yes’ and 55% (n=6/11) indicated ‘no’. Participants who indicated ‘yes’ to this question were then asked to indicate which substances they commonly used to manage their symptoms, of which, n=1 responses were reported for marijuana, uppers, opiates, and benzodiazepines. None reported using amphetamines, sleeping pills, stimulants, or antidepressants for self-management of symptoms; however, one participant reported using “any and all of the above”.

Finally, participants were asked to rate their level of agreement with the following statements in relation to their chem use (which were responded by all 11 participants):

	None	**Little**	**Moderate**	**A lot**	**Totally**
I need increasing amounts of chems to get high or feel an effect than I used to 12 months ago	3 (27%)	2 (18%	1 (9%)	4 (36%)	1 (9%)
I have a persistent desire to stop or reduce my chem use	0 (0%)	2 (27%)	1 (9%)	2 (18%)	5 (45%)
I have had 1 or more unsuccessful attempts to stop or reduce my chem use	1 (9%)	3 (27%)	1 (9%)	2 (18%)	4 (36%)
A large portion of my day revolves around obtaining, using, or recovering from chems	5 (45%)	2 (18%)	1 (9%)	3 (27%)	0 (0%)
I experience persistent cravings for chems that impact my ability to focus or complete tasks	5 (45%)	2 (18%)	2 (18%)	2 (18%)	0 (0%)
My chem use stops me from meeting my personal or social obligations	1 (9%)	3 (27%)	2 (18%)	2 (18%)	3 (27%)

My chem use negatively impacts my social or interpersonal relationships	1 (9%)	4 (36%)	1 (9%)	3 (27%)	2 (18%)
My chem use negatively impacts my ability to engage in social, work, or family activities	2 (18%)	1 (9%)	3 (27%)	2 (18%)	3 (27%)
I have used chems in public/potentially dangerous spaces	4 (36%)	2 (18%)	0 (0%)	3 (27%)	2 (18%)
I continue to use chems despite knowing its potential risks	2 (18%)	4 (36%)	0 (0%)	2 (18%)	3 (27%)
I experience withdrawal symptoms when I stop or try to reduce my chem use	2 (18%)	4 (36%)	0 (0%)	3 (27%)	2 (18%)
I use chems to relieve or reduce my withdrawal symptoms	4 (36%)	2 (18%)	1 (9%)	2 (18%)	2 (18%)