Sexualized Drug Use and Online Technologies: Examining the Negotiations and Practices of Gay, Bisexual and Men Who Have Sex with Men

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Within the health literature for gay, bi, and trans men sexualized drug use is often positioned as only a sexual health risk. This research utilized netnography to examine the ways men use technologies to negotiate SDU and their sexual health. Participants from three Canadian cites were recruited to participate in semi-structured interviews through advertisements circulated on Facebook and hookup apps (e.g., Grindr), as well as mass emails sent by LGBTQ2A+ community organizations to their online networks. Fifty interviews were completed. Foucauldian discourse analysis was used to analyze data. Participants described negotiating practices, through contextualizing SDU assemblages, constituting pleasures, and practicing ethical subjectivity. Findings suggests that sexualized drug use is more than just a sexual health risk. Implications for service providers are explored.

KEYWORDS
gay, bi, trans men; HIV; online technologies; sexual health, sexualized drug use

1 | INTRODUCTION

The lives and communities of gay, bisexual, and other men who have sex with men (GBMSM) have been undergoing changes as technologies have allowed them to connect in ways different than in the past (Gudelunas, 2012). Technologies, including social media, dating apps, and geo-based hook-up apps have become central to their lives. Research has previously explored the importance of such apps in the experiences of GBMSM including their sexual and non-sexual relationships, their access to and use of drugs, and their overall health and well-being (Breslow et al., 2019; Filice et al., 2020; Goedel et al., 2017; Penney, 2014; Queiroz et al., 2017).

Sexualized drug use (SDU) can be defined as the use of any drugs before or during sex to enhance arousal and sexual experiences (Pufall et al., 2018). Such drugs can include alcohol, erectile drugs, HIV-related drugs such as pre-exposure prophylaxis (PrEP), hormones such as testosterone, or recreational drugs. The use of drugs for sexual purposes is not new and has a history with the communities of GBMSM (Race, 2009, 2015). Within SDU, much attention has been focused on chemsex, a term to specify the use of psychoactive drugs, in particular mephedrone, -hydroxybutyrate (GHB), -butyrolactone (GBL), and crystallised methamphetamine (crystal meth), to facilitate sexual experiences between multiple partners, often lasting for long hours or over several days (McCall et al., 2015). We employ the term SDU to encompass all of the drugs that interact with and facilitate sex, as per other researchers (Edmundson et al, 2018; Hibbert et al., 2019; Maxwell et al., 2019).

Previous studies have explored several factors that play a role in SDU. For example, Smith and Tasker (2017) reported that men engaged in chemsex for a variety of reasons connected to their identities and the desire to belong to a group. The connection between technologies and SDU have also been investigated. For example, it has been noted that hook-up apps were used to facilitate and promote SDU, providing users with ways to connect with each other and communicate information on where to buy drugs and where SDU parties are taking place (Platteau et al., 2020). Many studies have examined and framed SDU as a health "risk" with negative consequences to the sexual health, as well as mental and emotional well-being of men (Bourne et al., 2015; Glynn et al., 2018; González-Baeza et al., 2018; Maxwell et al., 2019; Stevens et al., 2020).

A growing body of work, however, is moving away from framing SDU only as a risk factor for GBMSM health. It is increasingly being recognized that such medicalized framing of SDU does not capture the totality, nor the complexity, of experiences for GBMSM. Santoro et al. (2020) suggested that many studies relating to chemsex often only examine the motivations, transmission of HIV and other sexually transmissible infections (STIs), and consequences for public health. But some studies are starting to explore SDU through a different lens. For example, Santoro et al. (2020) explored the various practices associated with chemsex to gay men in Madrid, Spain and the discourses about such practices. Ahmed et al. (2016) explored the social norms that contribute to how gay men in London (UK) perceive and understand chemsex. Hakim (2019) traced the historical aspects and rise of chemsex practices in London, Great Britain along with the social and cultural contexts that have shaped such practices. Milhet et al. (2019) noted the absence of research that explored aspects of pleasure from chemsex and therefore, sought to explore the pleasures relating to chemsex in their work. They noted that GBMSM in France discussed chemsex in the context of building relationships, socializing, and sexual discovery. Our work contributes to this growing body of literature that explores the various political, social, cultural, and medicalized drug and health discourses, as well as the impacts such discourses have on GBMSM sexual identities and experiences within the context of GBMSM who reside in Canada.

An important issue at stake within this research is how sexual ethics are constructed in the context of queer communities consuming digital and chemical technologies. The ethics of GBMSM sexual practices has for a long time been scrutinized within religious, legal, and public health discourses (Adam, 2005; Frasca et al., 2013; Rudy, 1999). In the era of HIV/AIDS, the neoliberal ethical imperatives of individual responsibility and informed consent

have dominated the field of GBMSM sexual ethics; generic profiles of GBMSM have been used in slogans in public health campaigns, codified into consent and disclosure laws and internalized within GBMSM communities and service organizations (Adam, 2005; Carmody, 2016; Corteen, 2004). These imperatives may be understood as *modes of subjectivation*, that is, as discursive frames available to people within a given context to define their moral obligations and constitute themselves as ethical subjects (Foucault, 1997); subjectivation 'activates' particular forms of subjectivity that embody ethical imperatives. In this context, the dominant mode of subjectivation is as a 'neoliberal sexual actor' who is "tamed, responsible, and governed by the safe sex ethic" (Adam, 2005). GBMSM who do not appear to follow this mode of subjectivation are met with shaming, stigmatization, and hostility, both from outside and within their own communities (Frasca et al., 2013; Gagnon & Holmes, 2016). The use of codes and signals has been a long-standing strategy of GBMSM (well before the development of the internet) to communicate sexual desires under the radar of policing discourses; however, there is rife opportunity for them to be misrecognized and misinterpreted by partners (Corteen, 2004). Recent calls to rethink sexual ethics have proposed new queer modes of subjectivation beyond the prevailing discourses of public health, religion, law, and sexology – new modes in which GBMSM may resist the reduction of ethics to notions of safety and risk and reconstitute their ethical subjectivities upon conceptions of love, care, and pleasure between men (Adam, 2011; Frasca et al., 2013; Potts, 2002; Rudy, 1999).

Therefore, in this research, we examined the ways GBMSM communicate their sexual health and practices within the technologies of SDU and online technologies. We explored what is called the "practical morality" of GBMSM sex, which requires analysis of the discourses employed and navigated, as people account for their sexual behaviours (Adam, 2005). In other words, we sought to understand how GBMSM constitute themselves and their actions as they discuss, negotiate, and prepare for sex using the technologies of online platforms and chemical substances. These negotiations were analyzed through discourse analysis to understand the importance of language and communication in the sexual behaviors of GBMSM. Our discursive approach also identified important implications about the language that frontline health and social service providers may use to frame GBMSM sexualities beyond risk aversion.

2 | METHODOLOGY

2.1 | Design & Theoretical Framework

Qualitative design known as netnography framed this research. Netnography is an ethnographic perspective that had been adapted to explore modern issues of people revealing and constructing themselves in the digital world of the internet (Kozinets, 2010). Netnography allows researchers to more fully understand how technologies, social media, dating apps, and instant messaging shape social behaviors and the way we interact with each other (Kozinets, 2010). Participation in virtual worlds and online spaces is becoming an integral part to the lives and relationships of many people (Addeo et al., 2019; Baym, 2010), including the sexual lives of GBMSM (Gudelunas, 2012).

Many theorists have explored the meanings of the 'virtual', moving beyond static notions in which the virtual lives and material lives of people are separate to understandings of the inseparability of virtual and material lives (Handyside and Ringrose, 2017; van Doorn, 2011). As van Doorn (2011) emphasized, drawing on the work of Deleuze (1988), "the virtual can be understood as an immanent and immaterial form of agency or potential: effectively but not formally or materially existing within the interstices of everyday life" (p. 533). Gender, sexuality, and other aspects of people's lives become (re)negotiated through the connections and possibilities of the virtual (Handyside and Ringrose, 2017; van Doorn, 2011).

Our netnographic approach situates the dynamics of technology, apps, drugs, and GBMSM bodies within post-structuralist and queer theories (Butler, 1997, 2011; Deleuze & Guattari, 1987; Foucault, 1986, 1997), which

present critical perspectives on how discourses shape sexual experiences, pleasures, and ethics. Recent scholarship has applied these frameworks in sexual health research to generate new insights into the broader social and cultural contexts of radical sexual practices (Adam, 2011; Buchanan, 1997; Potts, 2002, 2004; Rudy, 1999). Buchanan (2010) describes poststructuralist thinking (especially in Deleuze and Guattari) as reframing how radical practices are positioned as problems, away from cause-and-effect language (e.g., 'risk factors' for engaging in sexual behaviours like SDU) and toward a vocabulary of relations and affections; Deleuze and Guattari (1987) introduced the concept of *assemblages*, which refers to the complex and ever-changing connections produced within social networks and between bodies. This reframing generates new possibilities for understanding desire, in this case, rethinking the sexual practices of GBMSM to better account for how they define their practices on their own terms.

Within poststructuralism and queer theory, desire is understood not as a lack to be fulfilled but a positive, or constitutive drive that produces new assemblages (e.g., new configurations of bodies, chemicals, technologies, and pleasures; Potts, 2002); however, desires are shaped by the present landscape of available assemblages, what are often described as *desiring-machines*, that frame the possibilities for relations and affects within a given field. For Potts (2002, 2004), the binary constructions of sexual desire and practice (normal/abnormal, safe/risky, masculine/feminine) within the Western disciplinary discourses of biomedicine, psychoanalysis, and sexology converge to produce *machinic* forms of desire—a narrow and rigid/scripted (or bounded) field of possible sexual relations. This framing of sex affects people differently depending on their sexual desires. SDU among GBMSM is often constructed within the frames of risk and excess, compared to heterosexual men whose SDU is met with more legitimacy and less moral panic (Gurevich et al., 2017). Along the same lines, GBMSM sexualized use of online networks occurs within a dominant discursive space of heteronormativity, stigma, and medicalization (i.e., public health messaging focusing on HIV, STBBIs, and gay sex; Holmes & Gagnon, 2018; Numer et al., 2019). Furthermore, social networking and hookup apps like Grindr (a geo-location hook-up app for men) mediate the subjectivities of their users, especially their sexualities and desires; through architectural features such as profile fields (e.g., defining gender identity, sexual orientation and preferences, HIV status), search filters for these fields, and linking users by geolocation, apps construct "desiring users" who reflect the decisions and assumptions of the app designers (Hardy & Lindtner, 2017; Numer et al., 2019). Research is needed to explore radical and queer forms of resistance to this "computer formalisation of identity" (Light, 2011, p.430). Radical sex practices provide openings for what Deleuze and Guattari (1987) call *lines of flight* away from territorialization (i.e rigid and prescriptive narratives about sex), in this case opening up a broader field of desire within which GBMSM may reconstitute their sexual relations and affects (Holmes & Gagnon, 2018; Potts, 2002).

Queer theory represents an original and productive way to make sense of resistance; the two main contributions of queer theory are that they specify: 1) how sex and sexuality operate as a regulatory (governed) construct; and, 2) how the deconstruction of normative models of sex and sexuality opens a zone of possibilities for new, queer assemblages (Edelman, 1994; Jagose, 1996). These contributions help us to understand that online sexual behaviours considered deviant may be better understood as embodied, subcultural acts of resistance against converging hegemonic social discourses (e.g., neoliberalism, heteronormativity) in daily life (Butler, 2011; Foucault, 1991; Miller & Rose, 1990). We approach the sexual uses of digital platforms and chemical substances as "technologies of the self" (Foucault, 1986), techniques for GBMSM to (re)constitute their sexual subjectivities in a variety of ways within a delimiting environment. Our research identifies how GBMSM use of digital and chemical technologies engages and disrupts the discursive spaces within which they have sex. In doing so, many GBMSM are participants, whether wittingly or not, in creating lines of flight toward new, queer constructions of sexual identity, communication, and ethics.

2.2 | Perspective of the Research Team

Within qualitative research, the identities of the researchers are not separate nor removed from the research process. As such we provide a brief overview of the research team. The principal investigators are faculty members within health promotion and nursing sciences and have extensive experience in the health of GBMSM. The team also consists of a post-doc fellow, a recent PhD graduate, and a PhD student – all of whom are within health sciences. All members of the team either identify within, or are allies, to the communities of GBMSM.

2.3 | Methods

Participants were recruited from three geographically separate Canadian cites (Vancouver, Ottawa, and Halifax) through social media (e.g.,Facebook recruitment ads), hookup apps (e.g., Grindr), and LGBTQ2A+ community health organizations to their online networks. Semi-structured interviews were conducted with each participant, as well as a survey to elaborate on their survey responses. The survey collected demographic information, as well as information on participants' use of various substances and sexual practices. The data were used to inform the interview process that followed.

   The interviews were semi-structured and were designed to explore more fully the participants' use and knowledge of online technologies, substances during sexual encounters, and how these shaped their identities. Participants were asked to describe their app use, the types of substances they use during SDU, the types of substances discussed on hook-up apps, as well as how people talk about SDU online. Participants were also asked to discuss how substances impacted their sexual encounters, including both the benefits and drawbacks of SDU. Questions about sexual health practices were also a part of the interview process. Finally, participants were asked to think about and describe the presence of substances on hookup sites or apps and the impacts on GBMSM sexual interactions and encounters. The 50 completed interviews lasted 60-90 minutes and were audio-recorded for transcription. The research was cleared by the ethics research board.

2.4 | Data Analysis

Interview transcripts were coded through a collaborative process by the research team using Foucauldian discourse analysis (Foucault, 1977, 1978; Graham, 2005; Springer & Clinton, 2015). This type of analysis was used to explore how discourses and language (re)produces meaning (e.g., perceptions of SDU) and the subjectivities (or construction of identities) of participants (Cheek, 1999). The data analysis process involved the (re)reading of transcripts to identify the meanings of SDU and subjectivities within social and cultural contexts (Cheek, 1999). Foucauldian discourse analysis also explores the political effects of language, such as the ways sexuality and sexual practices can be restricted by medical discourses of sexual health and the associated risks. Participants' language was situated within a broader terrain of discourses influencing GBMSM practices of SDU; this contextualizing analysis resulted in the development of a categorical framework covering the breadth of discourses intersecting with GBMSM experiences (e.g., dominant representations of [gay] masculinity, the risks and pleasures of radical sex, online hookup culture, and the sociosexual effects of various substances; Holmes et al., 2021). This framework was reviewed and finalized by the research team. Within this paper, we explore GBMSM's discursive construction of signaling, communicating, and negotiating SDU on hookup apps.

2.5 | Participants

Recruitment efforts resulted in a total of 50 participants (40% from Halifax, 38% from Ottawa, and 22% from Vancouver). The majority of participants self-identified as cis men (84%). Trans men (13%), non-binary (3%), and Two-spirited (2%) made up the remaining sample. Sexual orientations included gay (78%), bisexual (10%), queer (10%). Participants were predominantly White (64%), with the remaining participants identifying as Asian (16%), Latinx/Hispanic (10%), Indigenous (6%), and Middle Eastern (4%). The ages of the participants ranged from under 20 years old (4%), 20-29 years old (32%), 30-39 years old (34%), 40-49 years old (10%), to 50-59 years old (20%). In reference to annual incomes, 58% of participants reported incomes less the $30,000 (CAN), 12% reported incomes between $30,000 - $59,999 (CAN), 18% reported incomes between $60,000 - $89,999 (CAN), and 12% reported incomes greater than $90,000 (CAN). For complete demographic information, please see Table 1.

TABLE 1 Participant Demographics

		n
Residence		
	Halifax	20
	Ottawa	19
	Vancouver	11
Gender		
	Man	13
	Transgender Man	20
	Non-binary/Non-conforming	28
Sexual Orientation		
	Gay	39
	Bisexual	5
	Queer	5
	Two-Spirit	1
Age Range		
	Under 20	2
	20-29	16
	30-39	17
	40-49	5
	50-59	10
Ethnicity		
	White/Caucasian	32
	Latinx/Hispanic	5
	Southeast Asian	3
	Indigenous	3
	East Asian	2
	Middle Eastern	2
	South Asian	2
	Pacific Islander	1
Income		
	Under $30,000	27
	$30,000 - $59,999	6
	$60,000 - $89,999	10
	$90,000 +	6
	Prefer not to say	1

3 | RESULTS

It was found that participants frequently used social networking apps to negotiate their practices of sexualized drug use. These negotiations occurred within a dominant online milieux of homophobic and other oppressive discourses (e.g., racism, transphobia, body shaming) that were sometimes internalized within virtual GBMSM communities. Negotiations of SDU included three main discursive considerations: 1) contextualizing SDU assemblages, 2) constituting pleasures, and 3) practicing ethical subjectivity. The following sections elaborate on each of these considerations in turn.

3.1 | Contextualizing SDU Assemblages

In our data, participants talked about the ethics and politics of sex and the connections between themselves, other men, and their communities both online and offline. We begin by discussing the possibilities online hookup sites create for sexual assemblages, before exploring the influences of heteronormativity and different modes of subjectivation in constructing an ethical practice of online SDU.

3.1.1 | Multiplying Online Assemblages

The potential for apps and substances to help connect GBMSM was noted by many participants. Many participants believed the connections (re)created through online technologies and SDU were positive and not harmful. One participant noted that the apps enable contact with people not possible in offline public places:

> I would say the apps... are positive for the gay community. Being limited to bars and to places like bathhouses or sex clubs to meet someone, there's a lot of people that you simply would never meet.

Online technologies and SDU in this view (re)create possibilities for connections. Other participants described how online technologies often helped them to be more selective with potential partners. One discussed how the app Grindr helped him "get out into the community where I didn't think I could because it's harder... for myself to just go out and speak up to people." The app provided this participant with "the option to message them, see if they are actually interested in me instead of going up to them [in person] and then feeling rejection." Another participant discussed how the apps are used for many reasons, saying "I think people use them [the apps] for different purposes... in the gay community to go on dates, you know and find love."

Participants also noted the potential of the apps to find sexual partners. But this participant further noted that the apps, beyond sex, was a way to connect with other men. He described one such instance, saying he was "just alone and I wanted someone there." The apps, for this participant, was a means to help ease the loneliness they sometimes felt. Another participant also discussed how the apps were a point of connection with others.

> I'd say it's like a point, it feels like a point of connection, like it's you know I'll see 420 you know ... right like I like to smoke pot, you like to smoke pot, do you want to get together? But it's like you know I have said something like 'oh you know 420 friendly here as well.'

This participant saw the apps as a point of connection to others who were also into SDU, using the term *420 friendly* to connect with other men who also use cannabis. Most participants described the apps as multiplying

opportunities for desired connections, of a variety of kinds—sex, as well as friendship, love, party buddies, participation within a community, among many other assemblages.

As one participant noted, "one of the things with the apps is I can get a lot of the awkward out of the way. You can also usually parse out if they're a problematic person based on like if it [their online profile] says no fats, no fems, no Asians, I'm just avoiding all that nonsense." This participant further explained that online technologies allow others to gauge his character. "You can see who I'm friends with so if you don't trust somebody I'm friends with, you can try and gauge that." He concluded by saying that the apps allow "a lot of background searching for safety."

3.1.2 | Carrying Heteronormativity into Assemblages

The potential for apps and substances to help connect GBMSM was for many participants influenced by homophobia within their offline lives and desire for anonymity. For example, one participant valued the anonymity afforded by online technologies but felt that this same mechanism also influenced who used and did not use the apps:

> I started [using online technologies] when I was like 18, I only came out within the last couple of months…
> because I had a super high requirement for anonymity … it really changes the event, the different qualities
> of people that you end up connecting with…people who are discreet or in the closet or whatever, can only
> give you so much, you're both fearful of you know each other's circle finding out and all that kind of stuff
> and you get the people I think who aren't the most comfortable, who aren't the most mentally well, who
> aren't the most okay with their sexuality and [are] probably deviant in a bunch of other ways… that's who
> you're kind of forced to connect with.

The participant viewed his connections as being limited to men who suffered from stigma and mental health challenges because of heteronormativity and homophobia that positions GBMSM sexuality as something that should be hidden. Even within apps designed for GBMSM, users often must operate 'discreetly' and 'anonymously,' that is, within the shadows of the heteronorm. The participant above constructs the potential for harm as bodies imbued with homophobia—both his own offline relationships as well as other users who have internalized the discourse into "deviant" or self-destructive behaviours. As one participant described it more succinctly, if crassly, "I don't find it's a community. I just think it's a whole bunch of fuck-ups, you know what I'm saying?" The individual user is not simply mentally unwell ridden with sexually deviant desires. Rather, the subject, situated in a culture of heteronormativity, comes to understand their subject position as that which is different and, therefore, requires discretion. As we will see, often drugs can provide access to such culturally forbidden desires.

This participant continued to discuss and reflect on his potential connections with other men online, suggesting that the apps may not be safe havens from heteronormativity but rather carry its reach into the sexual assemblages they facilitate:

> I'm still kind of defaulting to it a little bit and struggling … would I be more fulfilled meeting someone tra-
> ditionally like face-to-face, based on their appearance and not their level of horniness? ... I worry that it
> makes, it's making men unhealthy, cause it's too easy... unhealthy in a way that we're not requiring any
> kind of human connection or respect for each other. You know, I have no moral issue with hooking up,
> whatever – to me it becomes a problem if that's your only connection to your sexuality. I worry that a lot of
> people have a love-shaped hole in their heart and they just cram hook-ups in it.

The participant questioned and struggled with the way connections are formed online, especially the medium's potential to erode a GBMSM communal ethic of "human connection or respect for each other." His interrogations exposed some of the core ethical tensions that frame the potential ethics and politics of hook-ups; namely, on the one hand, facilitating a plethora of sexual assemblages that affirm GBMSM sexuality and, on the other hand, the depersonalization of sex and dismantling of GBMSM relationality. For this participant, "unhealthy" use of the apps was framed not in terms of risky or unsafe behaviour but rather as distance and indifference to moral obligations to each other.

Participants discussed the "unhealthy" dynamic in online spaces in terms of (dis)trust, lying, and disregard for sexual health, suggesting that the heteronormative pressure for anonymity can lead some to behave in deceptive and harmful ways on and off the apps. One participant noted that he gets along "fabulously with lesbians and trans people and non-binary people in the community" but that he has "very few gay, male friends." He attributed this to the anxieties relating to gay anonymity that play out between discreet hookups and public encounters, saying that:

> It is because of Grindr and the way that, even if I smile to people I chatted with on Grindr when I see them in person, they kind of look away like they don't know who you are, it's like we have this weird social anxiety around each other.

From this participant's perspective, online communities within hook-up apps such as Grindr can create spaces that limit the possibilities of meaningful connections outside of online spaces and the context of sexual experiences. Other participants described experiences of being lied too online or receiving fake photos. One participant noted that "you don't have like guarantees who you're going to meet really cause you don't even know if the picture that you see is a real person. It happens a lot." Another participant described having their trust broken. He said, "Sometimes there are people that you feel you've built a trust with, maybe people that you've seen more than once or you feel a little bit safer with, but even they lie and they have sex with other people." Many of these experiences were talked about in terms of sexual health, number of partners, and safer practices of sex, such as wearing condoms. For example, one participant commented, "there are people who are completely awful about it, they'll take the condom off halfway through." Another participant revealed a sexual assault, "I was actually raped once because I demanded someone put a condom on, he took it off and he kept going and I told him to stop." These examples show that while there may be more opportunities for connections through the apps, the broader social context in which the apps have developed has fostered spaces where there is not a clear or coherent mode of subjectivation guiding those connections. Users may operate under a variety of ethical modes of conduct, often implicitly and sometimes without respect for their partners' preferences and desires.

3.1.3 | Subjectivating SDU

The decisions to consume drugs during sex was constructed in a variety of different ways, revealing at least two modes of subjectivation in participants' interviews. One participant stated, "as for substances it's up to each individual to draw their own boundary and decide where they go from there." This framing of SDU seems to draw upon the neoliberal mode of subjectivation, an ethical imperative of "responsibilization" (Adam, 2005) in which it is up to individuals to identify, discuss, and secure their own boundaries around sex and drugs. Several participants framed the ethics of sex, including the potential harm that men must navigate online and during SDU, from a neoliberal lens as individual responsibility. It is the individual that must become aware and apply boundaries to protect themselves.

By contrast, another mode of subjectivation was in operation in participants' talk. One participant framed communication online regarding SDU as being driven often by intuitive feeling and not by extended deliberations:

A split-second decision based on the littlest thing can be the deal breaker...or you'll be talking to someone and your joke doesn't land …you don't even know what it is sometimes but whether or not you have a positive or a negative view of recreational drugs or a positive or negative view of prescribed drugs or steroids or whatever it is, that's going to have an impact because I think it's really easy to just associate one of those things with a feeling, and then that's it.

This comment suggests connections often depend on in-the-moment decisions based on moral judgements. The potential for SDU experiences is dependent on users' valuations of various substances, which vary widely and are sometimes surreptitious or unstated. While drugs and alcohol are widely present on hook-up apps, they also carry stigmatization and negative associations for some users. We see here how the assemblages available through apps and drugs may be used either to reproduce or to disrupt stigma and isolation within GBMSM communities. We also see within the quote above a glimpse of different moral reasonings in operation—other than individual responsibility—as men discuss sex and drugs online; contrary to the neoliberal imperative of explicit discussions and negotiations of safety, the participant above describes decisions as often being made in a "split-second," based on the "littlest thing" and its associations with a "feeling." There is little expression here of negotiated safety or informed consent, only of charged affects and the sexual avenues app users are willing or not willing to travel.

3.2 | Constituting Pleasures

The next discursive consideration explores the way participants used online technologies to communicate, negotiate, and organize their sexual experiences and SDU. This exploration found two interrelated discourses regarding communication: signaling pleasures and maneuvering consent.

3.2.1 | Signaling Pleasures

Many participants in the study described practices that they used to signal their pleasures with SDU. A common method was through the use of codes and signifiers on their online profiles and in direct messaging with potential hook-ups. One participant described,

It starts with those code words, like PNP, you know party and play, you know, or someone will write a word and they'll capitalize T, you know as if to say, 'we've got Tina, like are you okay with that?' So, I think those conversations like it's sending out signals you know kind of baiting the hook and throwing it down and seeing if somebody bites.

The coded language, such as Tina (slang for crystal meth) and PNP, used within the technologies were a means to symbolize both the drugs and the practice of SDU. The use of such codes was to maintain discretion and to slide under the radar of regulators within the apps, who may ban direct communications about drugs. The codes became a line of flight, a means for men to initiate conversations that are often surveilled and suppressed within the online spaces of apps. Another participant stated,

That's when the conversation starts… I'm not sure what do they actually use, that's why I'm 'Hey by the way so you're a smoker (coded language for drug use) and then what do you use'… then that's when I know that I'm more hard core than this person, then it's like I'll [let] him know that 'oh I'm actually doing

much more and like Tina… so I'm not sure what you're into, if you're okay with that then great, let's meet
up but if not, then you're more than welcome to say no and good luck to you.'

The conversations initiated by coded language allowed participants to gauge the interest of other users in SDU and to ensure compatibility in their desires. Such initial signals created opportunities for more open discussion about SDU and the pleasures associated with it. Another participant revealed the apps' utility to "just talking about what gets them high and stuff like this and what really turns them on, you know in that state, especially if they've had some coke or whatever or T or whatever else they're on, crack." Through the analytic lens of discourse analysis, it can be understood that the coded language creates subversive discourses against the rules of conduct set out in online environments, allowing other users to know who is interested in SDU experiences and what pleasures they are looking for. Through this process of discourse and knowledge creation, opportunities are created for men to further communicate their pleasures. These symbols act as signifiers through which other subjects know and understand many of the expectations therein; signifiers create a field of subterranean knowledge within the visible online spaces. Coded language is more than a sign to others that they are interested in SDU. They curate the expectations and often the sexual encounters that result from online interactions.

3.2.2 | Maneuvering Consent

Most participants described consent as integral to communicating their pleasures in relation to SDU, but also as an open-ended, often ambiguous process. Consent processes usually began in conversations through the online technologies. For example, one participant described interactions regarding consent in this way:

When it comes to consent … it depends on the mood that I'm in and the company I'm with. I like to do
piggy stuff… that usually happens with drugs… I think that (consent) comes with conversations and you
know 'yes it's okay, no it's not okay' and I'm very respectful of the people I'm with. Conversations that
happen online, I think there's always an expectation set before I would ever go meet someone. We can
have a typed conversation on Scruff and talk about what we want to do to one another, and it can get
pretty hot and heavy and then you can show up at someone's house and 'oh I don't know if I'm okay with
that' and so I think it changes, so you have to be pretty maneuverable.

In the quote above, the consent process begins with negotiating sexual interests and practices online but can change as people move their connections to real life. Consent is not static or assured. A person must be "maneuverable" or willing to change if things feel uncomfortable for one person during the in-person meetings. It is also noteworthy that in the process of consent, participants often used symbols to indicate their interests. The participant above noted his interest in "piggy stuff". Online users may use an emoji that looks like a pig snout or a pig to indicate that they are interested in an array of behaviors related to pig play. This can involve things like body smells, armpits, bodily fluids and more. This is a nuanced aspect of consent in which users are signifying their interested to garner consent (whether articulated or not) to engage in these dimensions of sex. Codes may be a part of the consent process, but they hold potential to be misunderstood or misinterpreted. The policing of SDU on apps leads to the use of coded language, which fosters a subversive discourse of signs but one that can be less transparent, decodable or shared among users.

This potential for misinterpretation can be seen in the tension between online and offline communication. Many participants believed that consent negotiations were easier online than in person; in fact, some participants said

they experienced challenges in renegotiating consent in person, especially when drugs were involved. One participant provided this example:

> Sometimes if I'm using a substance, like I did cocaine this summer, I was living with a couple of friends and so I went on Grindr to find someone cause I was super horny and this guy came and we went for a drive. He was like 'I don't know', I wasn't sure if I was even that into it, but I still, I don't know sometimes you're just like already in the situation and that's what I find about hook-ups with Grindr is that you're kind of already in that space with them, once you meet up you kind of already know what you are going to do. I mean you can leave but I feel like I always had issues with…I feel like when I'm already there, like I already feel pressured to do things. And especially if you already talked about having sex before, it kind of makes it feel like it's a done deal.

This participant related the difficulty of renegotiating consent in person for sexual practices and SDU once they have been discussed through apps. Activities negotiated online may be seen as a "done deal," that is, that no further discussion or adjustment to terms is needed when physically meeting with partners. This assumed finality of consent often created pressure to go through with sexual activities that participants may have had second thoughts about engaging in. The difficulty here may be how consent is constructed within participants' accounts; consent seems to be predominantly understood as a binary response—yes or no—rather than as an open and changing conversation throughout an encounter.

Consent negotiations may also be complicated by substance use. For example, one participant noted that in "that moment [of consent] you're high maybe, it took you five hours to hook this up and this is the last step you have before you're going to have sex. So there's a lot of weight on that decision right there to say 'well I don't fuck with condoms on' … it takes a lot of brain power to get through that moment." This participant revealed the pressure and intensity that can be placed on men in the moments of consent within SDU. Another participant described having to be very protective of his health when using drugs during sex. He specified that if he is "high on Molly, [he is] not going to let [his] guard down and have unprotected sex, not at all." Other participants also discussed the complexity of consent when sex and drugs are mixed together in terms of boundaries. As one participant noted, "when somebody is under the influence it would definitely blur a line" in terms of their capacity to consent. Another participant questioned how the use of drugs may create misunderstandings of consent.

> There's other questions that get involved too if that person is too intoxicated in terms of consent. I want to make sure that they know what's going on and vice versa. I don't want to be so intoxicated that someone mistakes something I do for consent and I want to make sure that everyone's in a good state of mind and it just kind of makes things less complicated.

The participant labelled practices of consent as complex, especially when SDU is involved. He also described what an ideal consent process might look like—sexual interactions where partners are in a "good state of mind" and are actively consenting throughout the encounter. This participant's perspective points to an ethics of GBMSM sex that will be explored next; however, through the creative use of codes on their profiles and discussion of sexual and drug use boundaries, participants demonstrated how they construct consent. The comments above show the limits and perils of consent as an ethical imperative for GBMSM to engage in SDU, riddled with ambiguity and slippage.

3.3 | Practicing Ethical Subjectivity

So far, we have identified several discourses of sexual ethics—especially individual responsibility, feeling, and consent—in operation within GBMSM online encounters with sex and drugs. Discourses of harm reduction—which deploy strategies for minimizing the negative health, social, or legal effects of SDU—also entered into participants' talk of using online technologies to help protect themselves and others before, during, and after their experiences with SDU. In many overlapping and intertwined ways, participants drew upon harm reduction concepts such as awareness, protection, trust, and setting limits to construct an ethical practice of SDU for themselves.

3.3.1 | Constructing Awareness and Protection

The participants discussed how online technologies (re)created awareness through several mechanisms, that SDU can have negative consequences to their sexual health and wellbeing. Online technologies facilitated the creation and expansion of discourses and knowledge about sexual health and harm reduction. For example, one participant noted,

> *I go online quite a bit and if I see a study that had been published, I tend to read it, I tend to read these things, the big thing now is undetectable equals untransmittable and I'm very interested in that.*

The participant presented themselves as informed and current on sexual health topics due to engagement with epidemiological research discourses on viral load.

Another participant noted that online technologies have changed the way they think and feel about their sexual health. Also alluding to epidemiological research, he described how he is now less concerned about HIV because of the "the knowledge that we have about how HIV is transmitted and how it's not transmitted." The information about virility now available online was framed as transformative in how the participants related to social and cultural discourses of HIV that produce stigma. He further noted, "I feel a bit of shame for how I was ignorant a few years ago and not aware of things and how that affected the community; people with HIV." The participant described themselves as being more enlightened on the topic of HIV and HIV-related stigma, which they said could help reduce the associated harm of these issues on their community.

Other participants also noted that the online technologies of social networking apps facilitated less worry about their sexual health by enabling men to post about their sexual health testing practices and status. Unlike the subject of drugs that required codes, hookup apps were seen by several participants to permit more open communication about sexual health status. For example, one participant noted that the user profile features on Grindr create a space for checking potential partners' health status and negotiating condom use:

> *You can tell when the person has been last checked and most of the time with those types of hook-ups I would use protection and the only times I wouldn't is if the person really requests that and if they do then I would, you know, in the app ask when was the last time you were tested.*

This participant said he used the apps as a means to build his awareness regarding the health status of his potential sexual partners, either through reading their profiles or in asking questions while messaging. Other participants also noted that such negotiations were complex and changeable when in-person meetings took place, which was usually spoken of in terms of trust, as explored in the next section. We suggest that the architecture of hook-up apps,

such as Grindr, shape the discourses of sexual solicitation between GBMSM, supporting harm reduction by allowing men to post their sexual health information and practices in their profiles. This capability helped participants discuss and navigate their sexual encounters in ways that they said were less available, comfortable, or socially acceptable in-person.

As a result of the transformed communication dynamic between sexual partners online, participants stated that the apps have made awareness of sexually transmissible and blood-borne infections (STBBIs) more widely known and discussed. However, as with many of the discourses participants have engaged with, the discourse of online disclosure has its trappings as well. For some participants, this knowledge was said to generate more worry than assurance. Such worries informed not only their sexual practices but with who and how they used the apps to connect with other men. One participated noted:

> *I'm definitely concerned about it. I always make sure that I'm on top of things and I always have been so it's important to me and the partners that I'm with, I want them to make sure that they're clean as well before I engage...I think they [apps] made it [STBBIs] known.*

This participant, along with several others, framed their choice of sexual partners as "clean" men—in other words, men who showed themselves to be open and concerned about their own sexual health. The term clean is stigmatizing. It is common verbiage that ranks and stations HIV-positive men as *unclean* despite the fact that many people do not actually know their HIV status and for those who are positive a low viral load significantly reduces the possibility of transmission. The term *clean* has been used to denigrate people for years who are sexually active. This is an example of terminology that passes through everyday language but exerts stigmatizing effects, often unwittingly. Despite these stigmatizing effects, participants identified the preference for "clean" partners as an important tactic of harm reduction.

This issue of 'cleanness' reflects a larger issue with online user profiles; they construct profiles as honest and transparent disclosures of sexual health, which then gives users reading such profiles an assumed sense of 'informed' decision-making when they respond to profiles. Users completing their profiles are presumed as honest in their disclosures despite some of the larger issues of heteronormativity and stigma identified above that shape user behaviour; for their part, users viewing others' profiles are presumed to be informed about their potential partners, thereby constructing them as informed consumers who are individually free (and responsible) for their choices. Most participants described how online technologies (re)created knowledge and (re)shaped discourses about sexual health; however, the online construction of disclosure and informed sexual choices impacted participants in a variety of ways, making some feel more assured while others more anxious about their sexual health and decision-making while using online technologies.

3.3.2 | Establishing Trust and Boundaries

Many participants also described how building trust and setting personal limits were further tactics to reduce harm. As a participant described, "there's only so much I can do on my part to protect myself. And that's where the trusting comes in, I don't tend to talk to people and right off the bat and boom, boom, boom in bed with them. I chat with them for a little bit too to get a feel for them." Trust was for most participants a means to protect oneself through personal judgement of other online users. Another participant noted, "safety is always the number one thing and you just have to use some sort of judgment on the conversation and how it goes." Unlike in-person encounters, users depended on the limited text and photos available within the apps to communicate desire and intention. Participants reported

needing to decode the language of other users' profiles and direct messages to assess their trustworthiness based on how they presented themselves and engaged in negotiations for hooking up.

Setting limits was a strategy to set thresholds to activities they would negotiate and partake in with other users. The discussions set up meeting places, types of sexual activities, as well as types and quantities of drugs to be used. For example, a participant described how he had a dose limit of crystal meth that he would take to prevent doing himself harm. He said, "as long as I only do my dose. There's a dose that I go for. I know if I do beyond that dose, I'm going to be a little sketchy and I don't do sketchy anymore." Compared to the previous tactics for harm reduction reported above, setting limits was framed as a self-management practice; in this case, limiting drug use was described as a way to maintain control and avoid harmful practices.

Trust and limits were often threaded together in participants' talk of harm reduction. In one example, a participant described online discussions he had to coordinate group sex as an exercise in building trust and creating limits:

> It was a four-way… this other guy and I had hung out several times together and we had a pretty good, trusting friends with benefits type thing, and he asked me would I be comfortable hosting one or two other people to come along with him. We had a discussion and I said this is what I would need to have happen to feel comfortable. And he said "okay let me see what they think"… we worked out all the machinations and details, and so I met the original guy online… The other two people I didn't know and I had never met them online and so I had no direct connection with them. He was the conduit to connect all of us.

The online discussions he had about his sexual limits and what he was comfortable with allowed him to trust his sexual partner to arrange group sex. In another example, a participant described his relationship with his partner and the way they set limits to navigate SDU within hook-up culture on the apps:

> My partner is a recovering addict, so we've talked about like how to prevent people talking about those things to him on the app and it's been really difficult cause people just bring it up sometimes. And then he'll possibly relapse so that's not good. We made a compromise of I'm in charge of his Grindr. I have to read the messages first, but it was a conversation when he first became sober that how are we going to navigate the hook-up culture without mentioning drugs basically… I'll show him pictures and I'll message them for him…if they bring something up I'll be like okay no and then I'll be like pick someone else that you're interested … he does all the picking of the people or if someone messages him I'll show him their profile.

Drugs proliferate the online spaces of hook-up apps. Participants presented online spaces as potentially unsafe for people in recovery because of the ease of access to drugs within these spaces. Like the participant and his partner above, however, GBMSM developed strategies for limiting their exposure and safely navigating the online spaces.

Participants talked about an array of practices they saw as reducing (the potential for) harm in their use of apps and drugs to have sex. Their comments highlight the impact that harm reduction discourses have had on their sexual practices. They also modified such discourses to express how safe and healthy sexual encounters can be achieved when using online and chemical technologies.

4 | DISCUSSION

It has been suggested that researchers need to move beyond the limited constructions of SDU (as risky, radical or harmful) and to explore the constructive ways sex, drugs, and online technologies come together in order to more fully understand the experiences and meanings of SDU for those who practice it (Drysdale et al., 2020). This research, by exploring the connections between online technologies, SDU, and sexual ethics of GBMSM, revealed the complexity of SDU as a practice and adds to the literature that moves SDU beyond being known as simply a risk to sexual health and overall wellbeing of GBMSM.

The three findings of this research – contextualizing sexual assemblages, communicating pleasures, and practicing ethical subjectivity – are interconnected and have the potential to (re)create the meanings of SDU for GBMSM communities. Online technologies and apps are spaces in which knowledges about SDU practices, risks and health are produced and exchanged. These knowledges, according to Foucault (1977, 1978), shape the subject positions of those engaged in the practice. In this context, GBMSM negotiate a variety of different discourses of sexual ethics in their discussions of online SDU—discourses that variably emphasize individual responsibility, feeling/intuition, informed consent, and harm reduction. Many of our participants expressed limitations and ambiguities in how to embody these ethical concepts, especially as users of GBMSM hookup apps may employ different modes of subjectivation in constructing an ethical practice.

For many of the participants, heteronormative social forces were seen to underlie the design and operations of hookup apps, even those designed for GBMSM, producing a hookup culture of discreet and depersonalized sexual encounters. Heteronormativity may be understood as a desiring-machine that assembles sexual subjectivity around what Potts (2002) described as the alleged complementarity of male and female sexes; sexual assemblages outside of the heteronorm are thus constructed as transgressing the imperative of complementarity. Nevermind the legal and human rights victories for GBMSM in Canada; heteronormativity is dispersed within the (online and offline) social body, including GBMSM communities themselves (Parsons et al., 2012; Williamson, 2000). Queer sexualities may no longer be illegal, but they are still heavily policed even in online spaces. If we conceptualize some of the ambiguity regarding ethical practices as owing to the endurance of heteronormativity within online queer spaces, then we may better understand the tensions within participants' talk. The desired connections are fractured by forces that are beyond individual control, but it is the individual who is asked to learn to cope, make sense of, and heal from the cultural forces that have produced the unwellness. This is the pitfall of the ethical imperative of the neoliberal sexual actor, who is expected to make risk-based assessments and informed decisions about their SDU practices within a context where such practices are often discouraged, both by disciplinary discourses (e.g., in epidemiology and public health) as well as discourses within GBMSM communities and service organizations themselves (Adam, 2005; Potts, 2002). The product of discourses that continue to marginalize queer and radical desires is a disoriented ethical social body, struggling to (re)construct an ethical subject on its own terms. We might describe this discursive environment as producing the Grindr-machine, an allegedly queer online field of desire that is still very much governed by oppressive and restrictive social forces.

Within post-structuralist thinking, we might describe different lines of response to this Grindr-machine: molar, molecular, and lines of flight (Deleuze & Guattari, 1987). Molar lines of response maintain the status quo—they are actions within hookup apps that perpetuate heteronormativity and the neoliberal imperative of individual free and informed choice. We witnessed many examples where these dominant discourses of sex and sexual ethics held sway in participants' own constructions of themselves as ethical subjects. In other words, the technologies of self that were available to constructing themselves and their desires were confined to a few rigid, absolute imperatives. Molecular lines of response are still very much governed by dominant modes of subjectivation, but within intersubjective spaces

subjects creatively navigate and negotiate the demands into workable practices. Most participants were within this space of negotiating competing ethical imperatives and conduct (e.g., intuition and informed consent); this reflects other literature similarly reporting tension and contradiction in how GBMSM talk about ethics within their sexual practices (Adam, 2005; Carmody, 2016; Frasca et al., 2013).

Most radically, lines of flight depart from the status quo, away from the imperatives embedded within the Grindr-machine. Despite infiltration by hegemonic discourses, virtual spaces also house queer and inclusive desires that disrupt gender and sexual norms, and even carve the way toward a virtual sexual ethics grounded in intimacy, reciprocity, and social responsibility (Dowsett et al., 2008). Adam (2005) indicated that GBMSM are well-positioned to subvert the figure of the neoliberal sexual actor by (re)constructing spaces of same-sex love and care for each other, but the practice of ethics often requires (molecular) negotiation of discourses that do not foster such an ethic. Communicating and signaling pleasures online through codes creates a field of subversive knowledge about SDU. The practice of using codes and signifiers have a long history among GBMSM, as a result of heteronormative policing of their sexual practices, and has been previously noted to have a defining influence in the way men connect with each other for relationships, sexual encounters, and SDU (Mowlabocus, 2016; Souleymanov et al., 2020). The knowledge created by signals allow users to form connections with others interested in SDU, but it may also produce confusion and misinterpretation (Corteen, 2004).

However, the significance of codes and signals in SDU online communication indicates something more radical in the works—the production of new discourses of sex and sexuality. The last century or so has seen GBMSM display dramatic resistance to dominant modes of subjectivation—including religious moralizing and legal privileging of heterosex; in responses, queer communities are reconfiguring sexual ethics in term of a new kind of fidelity, a "polyfidelity" accepting many different assemblages of companionship, arousal and pleasure (notably, beyond the dyad of two monogamous partners; Rudy, 1999). It is important to critically rethink sexual ethics within the context of the Grindr-machine and in order for this to happen we may need new vocabularies of sexual communication, negotiation and relationality beyond neoliberal notions of risk, informed consent and individual responsibility. As Foucault indicated, ethical subjectivity (what he called the "care of the self") both implies and conditions good relations with others (Foucault, 1997). Focusing strictly on individual decision-making and action maintains this neoliberal narrowing of desire and fails to account for the broader social transformations needed to foster new ethical modes of subjectivation better suited to queer sex. Deviations from dominant discourses (lines of flight) are important to produce what in post-structuralist theory is called a "plateau," a proliferation of desires within a given field that open up new ways of (sexually) assembling (Potts, 2004). A sexual ethics is needed that expands rather than restricts GBMSM capacities for sexual subjectivity, an ethic of polyfidelity to queer desires that are ever-making and ever-changing the definition of sex.

As Frankis and Clutterbuck (2017) noted, service providers and counselors who work with GBMSM in the context of SDU face multiple challenges based on language use and changing social, cultural, and environmental considerations of within app-based sexual negotiations. This research places GBMSM practices of SDU and hook-ups within a larger social context of seeking connections and pleasure within a highly heteronormative social environment. In other words, the findings can help us recognize the importance of an intersubjective logic and desire for community within SDU and online hook-ups. The findings contribute to understanding, and working with, the online strategies GBMSM use in constructing ethical sexual practices. It has been previously suggested that service providers and counselors who adopt an open attitude and policies relating to SDU, can help men feel more comfortable to discuss SDU with them (Frankis & Clutterbuck, 2017). Meaningful engagements and discussions about sexual health and wellbeing, consent issues, and drug use between men who engage in SDU and their health care providers are more likely to occur within spaces that are non-judgmental and that recognize the complexity of SDU (Bourne et al., 2018;

Stardust et al., 2018). Finding additional ways to engage GBMSM through online spaces and to support their healthy and successful navigation of the medium may also facilitate meaningful discussions about SDU between counselors, service providers, and the men who engage in SDU.

references

Adam, B. D. (2005) Constructing the neoliberal sexual actor: Responsibility and care of the self in the discourse of barebackers. *Culture, Health & Sexuality*, **7**, 333–346.

— (2011) Epistemic fault lines in biomedical and social approaches to hiv prevention. *Journal of the International AIDS Society*, **14**, S2.

Addeo, F., Delli Paoli, A., Esposito, M. and Ylenia Bolcato, M. (2019) Doing social research on online communities: The benefits of netnography. *Athens Journal of Social Sciences*, **7**, 9–38.

Ahmed, A.-K., Weatherburn, P., Reid, D., Hickson, F., Torres-Rueda, S., Steinberg, P. and Bourne, A. (2016) Social norms related to combining drugs and sex ("chemsex") among gay men in south london. *International Journal of Drug Policy*, **38**, 29–35.

Baym, N. (2010) *Personal connections in the digital age*. Cambridge: Polity Press.

Bourne, A., Ong, J. and Pakianathan, M. (2018) Sharing solutions for a reasoned and evidence-based response: chemsex/party and play among gay and bisexual men. *Sexual Health*, **15**, 99–101.

Bourne, A., Reid, D., Hickson, F., Torres-Rueda, S., Steinberg, P. and Weatherburn, P. (2015) Chemsex and harm reduction need among gay men in south london. *International Journal of Drug Policy*, **26**, 1171–1176.

Breslow, A. S., Sandil, R., Brewster, M. E., Parent, M. C., Chan, A., Yucel, A., Bensmiller, N. and Glaeser, E. (2019) Adonis on the apps: Online objectification, self-esteem, and sexual minority men. *Psychology of Men & Masculinities*, **21**, 25–35.

Buchanan, I. (1997) The problem of the body in deleuze and guattari, or, what can a body do? *Body & Society*, **3**, 73–91.

Butler, J. (1997) Against proper objects. In *Feminism Meets Queer Theory* (eds. E. Weed and J. Schor), 1–30. Indiana University Press.

— (2011) *Bodies that matter: On the discursive limits of sex*. Taylor & Francis.

Carmody, M. (2016) Sexual ethics and the erotics of consent. In *Making sense of sexual consent* (eds. M. Cowling and P. Reynolds), 45–56. Routledge.

Cheek, J. (1999) *Postmodern and poststructural approaches to nursing research*. SAGE Publications.

Corteen, K. (2004) Beyond (hetero) sexual consent. *Making sense of sexual consent*, 171–193.

Deleuze, G. (1988) *Bergsonism*. Brooklyn, NY: Zone Books.

Deleuze, G. and Guattari, F. (1987) *A thousand plateaus: Capitalism and schizophrenia. (B. Massumi Trans)*. University of Minnesota Press.

Dowsett, G. W., Williams, H., Ventuneac, A. and Carballo-Diéguez, A. (2008) Taking it like a man: Masculinity and barebacking online. *Sexualities*, **11**, 121–141.

Drysdale, K., Bryant, J., Hopwood, M., Dowsett, G. W., Holt, M., Lea, T., Aggleton, P. and Treloar, C. (2020) Destabilising the 'problem'of chemsex: Diversity in settings, relations and practices revealed in australian gay and bisexual men's crystal methamphetamine use. *International Journal of Drug Policy*, **78**, 10269.

Edelman, L. (1994) *Homographesis: Essays in gay literary and cultural theory*. Routledge.

Edmundson, C., Heinsbroek, E., Glass, R., Hope, V., Mohammed, H., White, M. and Desai, M. (2018) Sexualised drug use in the united kingdom (uk): A review of the literature. *International Journal of Drug Policy*, **55**, 131–148.

Filice, E., Parry, D. C. and Johnson, C. W. (2020) Traditions in (re) negotiation: Geosocial networking apps and intimate relationships among men seeking men. *Sexuality & Culture*, 1–28.

Foucault, M. (1977) *Discipline and punish: The birth of the prison*. Vintage Books.

— (1978) *The history of sexuality volume. 1: An introduction*. Pantheon.

— (1986) *The Care of the Self. Vol. 3 of The History of Sexuality.* Pantheon Books.

— (1991) *The Foucault effect: Studies in governmentality*. University of Chicago Press.

— (1997) Preface to the history of sexuality, vol. 2. In *Essential works of Foucault„ vol 1. (1954-1984)* (ed. P. Rabinow), 199–205. New York: The New Press.

Frankis, J. and Clutterbuck, D. (2017) What does the latest research evidence mean for practitioners who work with gay and bisexual men engaging in chemsex? *Sexually Transmitted Infections*, **93**, 153–154.

Frasca, T., Dowsett, G. W. and Carballo-Diéguez, A. (2013) The ethics of barebacking: Implications of gay men's concepts of right and wrong in the context of hiv. *International Journal of Sexual Health*, **25**, 198–211.

Gagnon, M. and Holmes, D. (2016) Body–drug assemblages: theorizing the experience of side effects in the context of hiv treatment. *Nursing Philosophy*, **17**, 250–261.

Glynn, R. W., Byrne, N., O'Dea, S., Shanley, A., Codd, M., Keenan, E., Ward, M., Igoe, D. and Clarke, S. (2018) Chemsex, risk behaviours and sexually transmissible infections among men who have sex with men in dublin, ireland. *International Journal of Drug Policy*, **52**, 9–15.

Goedel, W. C., Mitchell, J. W., Krebs, P. and Duncan, D. T. (2017) Willingness to use mobile phone apps for hiv prevention among men who have sex with men in london: Web-based survey. *JMIR MHealth and UHealth*, **5**, Article 10.

González-Baeza, A., Dolengevich-Segal, H., Pérez-Valero, I., Cabello, A., Téllez, M. J., Sanz, J., Pérez-Latorre, L., Bernardino, J. I., Troya, J., De La Fuente, S. et al. (2018) Sexualized drug use (chemsex) is associated with high-risk sexual behaviors and sexually transmitted infections in hiv-positive men who have sex with men: data from the u-sex gesida 9416 study. *AIDS patient care and STDs*, **32**, 112–118.

Graham, L. J. (2005) Discourse analysis and the critical use of foucault. *Australian Association for Research in Education*, **34**, 1–14.

Gudelunas, D. (2012) There's an app for that: The uses and gratifications of online social networks for gay men. *Sexuality & Culture*, **16**, 347–365.

Gurevich, M., Mercer, Z., Cormier, N. and Leedham, U. (2017) Responsible or reckless men?: Sexuopharmaceutical messages differentiated by sexual identity of users. psychology of men and masculinity. **18**, 341–351.

Hakim, J. (2019) The rise of chemsex: Queering collective intimacy in neoliberal london. *Cultural Studies*, **33**, 249–275.

Handyside, S. and Ringrose, J. (2017) Snapchat memory and youth digital sexual cultures: Mediated temporality, duration and affect. *Journal of Gender Studies*, **26**, 347–360. URL: https://doi.org/10.1080/09589236.2017.1280384.

Hardy, J. and Lindtner, S. (2017) Constructing a desiring user: Discourse, rurality, and design in location-based social networks. In *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing*, 13–25.

Hibbert, M. P., Brett, C. E., Porcellato, L. A. and Hope, V. D. (2019) Psychosocial and sexual characteristics associated with sexualised drug use and chemsex among men who have sex with men (msm) in the uk. *Sexually Transmitted Infections*, **95**, 342–350.

Holmes, D. and Gagnon, M. (2018) Power, discourse, and resistance: Poststructuralist influences in nursing. *Nursing Philosophy*, **19**, e12200.

Holmes, D., Numer, M., Hammond, C., Joy, P. and Sinno, J. (2021) Assembling bodies and technologies: a poststructural ethnography of sexualized drug use among gay, bisexual, and other men who have sex with men. *Gender, Technology and Development*, **25**, 193–216.

Jagose, A. (1996) *Queer theory: An introduction.* NYU Press.

Kozinets, R. V. (2010) *Netnography: Doing ethnographic research online.* Sage publications.

Light, A. (2011) Hci as heterodoxy: Technologies of identity and the queering of interaction with computers. *Interacting with computers*, **23**, 430–438.

Maxwell, S., Shahmanesh, M. and Gafos, M. (2019) Chemsex behaviours among men who have sex with men: A systematic review of the literature. *International Journal of Drug Policy*, **63**, 74–89.

McCall, H., Adams, N., Mason, D. and Willis, J. (2015) What is chemsex and why does it matter? *BMJ*, **351**, h5790. URL: https://www.bmj.com/content/351/bmj.h5790.

Milhet, M., Shah, J., Madesclaire, T. and Gaissad, L. (2019) Chemsex experiences: Narratives of pleasure. *Drugs and Alcohol Today*, **19**.

Miller, P. and Rose, N. (1990) Governing economic life. *Economy & Society*, **19**, 1–31.

Mowlabocus, S. (2016) *Gaydar culture: Gay men, technology and embodiment in the digital age.* Routledge.

Numer, M., Holmes, D., Joy, P., Thompson, R. and Doria, N. (2019) Grinding against hiv discourse: A critical exploration of social sexual practices in gay cruising apps. *Gender, Technology and Development*, **23**, 257–276.

Parsons, J. T., Grov, C. and Golub, S. A. (2012) Sexual compulsivity, co-occurring psychosocial health problems, and hiv risk among gay and bisexual men: Further evidence of a syndemic. *American Journal of Public Health*, **102**, 156–162.

Penney, T. (2014) Bodies under glass: Gay dating apps and the affect-image. *Media International Australia*, **153**, 107–117.

Platteau, T., Herrijgers, C. and de Wit, J. (2020) Digital chemsex support and care: The potential of just-in-time adaptive interventions. *International Journal of Drug Policy*, **85**.

Potts, A. (2002) *The science/fiction of sex: Feminist deconstruction and the vocabularies of heterosex.* London, UK: Routledge.

— (2004) Deleuze on viagra (or what can a 'viagra-body' do?). *Body & Society*, **10**, 17–36.

Pufall, E. L., Kall, M., Shahmanesh, M., Nardone, A., Gilson, R., Delpech, V., Ward, H., Group, P. V. S., Hart, G. and Anderson, J. (2018) Sexualized drug use ('chemsex') and high-risk sexual behaviours in hiv-positive men who have sex with men. *HIV Medicine*, **19**, 261–270.

Queiroz, A. A. F. L. N., de Sousa, Á. F. L., de Araújo, T. M. E., de Oliveira, F. B. M., Moura, M. E. B. and Reis, R. K. (2017) A review of risk behaviors for hiv infection by men who have sex with men through geosocial networking phone apps. *Journal of the Association of Nurses in AIDS Care*, **28**, 807–818.

Race, K. (2009) *Pleasure consuming medicine: The queer politics of drugs.* Duke University Press.

— (2015) 'party and play': Online hook-up devices and the emergence of pnp practices among gay men. *Sexualities*, **18**, 253–275.

Rudy, K. (1999) Sex radical communities and the future of sexual ethics. *Journal of Lesbian Studies*, **3**, 133–142.

Santoro, P., Rodríguez, R., Morales, P., Morano, A. and Morán, M. (2020) One "chemsex" or many? types of chemsex sessions among gay and other men who have sex with men in madrid, spain. *International Journal of Drug Policy*, **82**, 10279.

Smith, V. and Tasker, F. (2017) Gay men's chemsex survival stories. *Sexual Health*, **15**, 116–122. URL: https://doi.org/10.1071/SH17122.

Souleymanov, R., Brennan, D. J., Logie, H., C., A., D., C., L., S. and Halkitis, P. N. (2020) Party-n-play and online information and communication technologies: A socio-linguistic perspective. *Sexualities*, **1363460720932379**.

Springer, R. A. and Clinton, M. E. (2015) Doing foucault: Inquiring into nursing knowledge with foucauldian discourse analysis. *Nursing Philosophy*, **16**, 87–97.

Stardust, Z., Kolstee, J., Joksic, S., Gray, J. and Hannan, S. (2018) A community-led, harm-reduction approach to chemsex: case study from australia's largest gay city. *Sexual Health*, **15**, 179–181.

Stevens, O., Moncrieff, M. and Gafos, M. (2020) Chemsex-related drug use and its association with health outcomes in men who have sex with men: A cross-sectional analysis of antidote clinic service data. *Sexually Transmitted Infections*, **96**, 124–130.

Van Doorn, N. (2011) Digital spaces, material traces: How matter comes to matter in online performances of gender, sexuality and embodiment. *Media, Culture & Society*, **33**, 531–547.

Williamson, I. R. (2000) Internalized homophobia and health issues affecting lesbians and gay men. *Health Education Research*, **15**, 97–107.