Sexualized Drug Use Among Sexual and Gender Diverse People in the Context of HIV/STI Prevention: A Counterpublic Health Perspective

By

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Abstract

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Sexualized drug use (SDU) involves using drugs to enhance sexual activity with *chemsex* or *party and play* being prevalent among gay and bisexual men and men who have sex with men. This practice is linked to significant health risks, including mental health problems and HIV/STI transmission. Despite extensive research, traditional public health approaches often focus on the pathological aspects of SDU, ignoring broader social and cultural contexts. Particularly for harm reduction, lived experiences and personal strategies practiced by people who use drugs also tend to be excluded from intervention conceptualization. This dissertation addresses these gaps by adopting a counterpublic health (CPH) perspective, focusing on the health of sexual and gender diverse (SGD) people. This research is presented in three papers. Paper 1 is a narrative review of CPH literature focused on subaltern counterpublics, defining its tenets and identifying contexts where CPH is relevant. This review highlights the need for inclusive, context-sensitive public health approaches, proposing an emergent framework to enhance the understanding and application of CPH principles. Paper 2 critiques the assumption that all individuals conform to mainstream public health discourses, using harm reduction to explore how SGD individuals engaging in SDU navigate HIV/STI prevention and drug use risk reduction strategies. Through interviews with users of sexual networking apps, it captures their experiences, informing more nuanced harm reduction interventions. Paper 3 examines the interplay of moral agency, empathy, and stigma among SGD individuals in SDU contexts within a CPH framework. It investigates how participants perceive and exercise moral action and empathy while navigating stigma, emphasizing collective responsibility and inclusivity in harm reduction strategies. This dissertation advocates for reimagining public health through CPH, promoting inclusive and contextually-aware health interventions. By centering marginalized voices and valuing local knowledge, it aims to improve health outcomes and reduce disparities among marginalized communities.

Dedication

For my parents, sister, and loved ones, who have always believed in me

For Sienna, my furry companion, who has unconditionally remained by my side

And for the LGBTQ+ community, whose resilience and strength inspire my work

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Acronym Key

AIDS	Acquired immune deficiency syndrome	M-GTA	Modified-grounded theory approach
ANT	Actor Network Theory	MSM	Men who have sex with men
AQ	Annual questionnaire	PNP	Party and play
ART	Antiretroviral therapy	PrEP	Pre-exposure prophylaxis
CPH	Counterpublic Health	SDU	Sexualized drug use
GBM	Gay and bisexual men	SGD	Sexual and gender diverse
GHB	Gamma Hydroxybutyrate	SNA	Sexual networking applications
HCV	Hepatitis C virus	SOGI	Sexual orientation and gender identity
HIV	Human Immunodeficiency Virus	STBBI	Sexually transmitted and blood-borne infection
IDU	Injection drug use	TasP	Treatment as prevention
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer, *and many others*	UAI	Unprotected anal intercourse
		UVL	Undetectable viral load

Introduction

"There can surely be no social justice if particular groups, made vulnerable by circumstances of birth or happenstance in the course of life, are left to fend for themselves without a concerted effort by those responsible for our collective health–those of us in public health–to level the health playing field, to dedicate the resources needed to improve the health of the most vulnerable" (Galea & Vaughan, 2019, p. 1328).

This dissertation is a call to action towards reimagining public health through the lens of counterpublic health (CPH). Using principles of inclusion and community engagement to elevate the voices of sexual and gender diverse (SGD) populations engaged in sexualized drug use (SDU), this body of work aims to transform how health inequities are understood and addressed in the context of HIV/sexually transmitted infection (STI) prevention and harm reduction. More than ever, it is imperative to advance health equity, mitigate stigma, and improve harm reduction at the community level to create more effective and culturally sensitive public health interventions.

SDU is the act of consuming systemic-acting drugs to facilitate sexual activity or alternatively having sex while under the influence of a range of substances. A specific subset of SDU known as *chemsex*[1] in Europe and Australia or *party and play* (PNP) in North America has been associated with increased sexual risk behaviors and adverse health outcomes and has been a topic of research among gay and bisexual men (GBM) and other men who have sex with men (MSM) (Harm Reduction International, n.d.; Hibbert et al., 2021; Rapid Response Service, 2019). PNP among GBM and MSM is associated with significant physiological and mental health risks like substance use disorder (Bourne et al., 2018; Guerra et al., 2020; Hammoud et al., 2017; Hibbert et al., 2019, 2021; *Rapid Response Service*, 2019; Roux et al., 2018; Schecke et al., 2019; Ziegler, 2017). This type of SDU usually involves risky behaviors, including the nonsystematic use of condoms. Consequently, there is an increased likelihood of acquiring and transmitting HIV/STIs and potential for suboptimal adherence to antiretroviral therapy (ART) for people living with HIV and to pre-exposure prophylaxis (PrEP) for HIV-negative people.

These associations of SDU with sexual risk-taking have dominated concerns around this community's recreational drug use, and conventional knowledge has accepted the cause of such behavior to be the "biopsychological consequence of intoxication" (e.g., addiction or maladaptive coping) (Race et al., 2016). A critical epistemological perspective that provides a nuanced analysis of this cultural phenomenon can offer insights into new directions for harm reduction efforts. I integrate a CPH perspective that addresses this, one that focuses on the

[1] Chemsex/PNP is a type of SDU that involves the intentional use of illicit, psychoactive drugs like crystal methamphetamine (meth), mephedrone, and gamma-hydroxybutyrate (GHB) to enhance, disinhibit, and prolong the sexual experience within the gay community, differing across diverse geo-social, cultural contexts (Hammoud et al., 2019; Knight, 2018; O'Reilly, 2018; Pollard et al., 2018; Race, 2015; Souleymanov et al., 2019).

health and desires of socially marginalized people whose embodied practices like intentional illicit drug use in the sexual context challenge conventional public health norms (Race, 2003). Doing so addresses the reality that these populations are often rendered invisible and represent a smaller percentage of the general population, posing unique health needs that are frequently overlooked by public health's core focus on the majority of the general population (Galea & Vaughan, 2019).

CPH emerges as a critical framework within public health discourse, designed to address and prioritize the experiences and needs of marginalized populations (Albury, 2018; Race, 2009, 2017). Rooted in the understanding that traditional public health often reinforces hegemonic norms that do not necessarily serve all communities equally, CPH challenges these norms by advocating for inclusivity and equity. This paradigm shift is conceptualized to extend the reach of *mainstream*[2] public health by integrating these principles of social justice more deeply into health research and practice. A 'counterpublic' refers to subaltern (or subordinated) social groups that create parallel discursive arenas to formulate and circulate counter-discourses, which offer alternative perspectives that challenge dominant societal narratives (Warner, 2002). In public health, CPH employs this concept to critically analyze how public health policies and practices can systematically marginalize certain groups, and it strives to bring the voices of these 'counterpublics' into the center of public health discourse. By emphasizing the lived experiences of those often left at the margins of health discussions and policy-making, CPH aims to offer a more comprehensive and empathetic approach to health interventions and policies. Unlike other research frameworks that also center marginalized voices, such as community based participatory research (Minkler et al., 2003) or Critical Race Theory in public health (Ford & Airhihenbuwa, 2010), CPH distinctively leverages the dynamic interplay between dominant publics and counterpublics to specifically highlight and address the unique health challenges and strengths experienced by these groups. This framework encourages the use of

[2] The concept of 'mainstream' is often understood intuitively by people, defined by what is most read, heard, talked about, and preferred by the 'majority' (Saulo et al., 2013). The definition of mainstream has to a psychologically defined idea characterized by what the majority do or feel (Saulo et al., 2013). A mainstream view, however, often overlooks the multiplicity and complexity of public engagement, instead presenting a homogeneous, monolithic public and moralizing tone in public health (Galea, 2023). Alternative conceptions of inquiry that are intellectually and practically workable need to be proposed (Morrison & Lilford, 2001). For example, health social movements contribute to health knowledge by integrating counter-hegemonic knowledge derived from marginalized social identities into mainstream science and biomedicine (Underman & Sweet, 2022). Contemporary scientific and medical institutions also expand through pluralism and integrating diverse epistemic challenges rather than rejecting them (Underman & Sweet, 2022). However, they often overlook the importance of understanding phenomena in open systems (Price, 2014). This reductionist tendency leads mainstream science to focus on quantifiable, statistically generalizable evidence and ignore non-empirical aspects like social structures and global trends (Price, 2014). The epistemic fallacy of equating ontology with epistemology means that mainstream science often considers measurable aspects of reality and overlooks non-empirical realities such as unconscious and psychological structures, social structures, and historical trajectories (Price, 2014).

methodologies and practices that are not only sensitive but also responsive to the specific health realities faced by diverse populations.

Harm reduction strategies are pivotal in mitigating the adverse health outcomes associated with SDU (Drysdale et al., 2021; Malandain & Thibaut, 2023; Platteau et al., 2019; Power, 2022; Strong et al., 2022). These strategies are not only about reducing drug use but also involve the adoption of practices that reduce the harms associated with drug use in sexual contexts. Within the space of online hookup apps, harm reduction efforts include promoting safer sex practices, the use of PrEP, ART, and regular STI screenings. At the interpersonal and community levels, harm reduction practices are often implemented through peer-led education and support networks that encourage informed decision-making about drug use and sexual health. These community-focused approaches empower individuals to make safer choices and foster environments where members look out for each other's health, thereby enhancing the overall efficacy of public health interventions targeting STI and HIV prevention.

Concepts of agency, empathy, and stigma are also important to understand complex health behaviors explored in this dissertation. By examining SDU among SGD populations, this research investigates how these individuals navigate their health decisions within broader social, economic, and cultural contexts (Bordonaro & Payne, 2012). The capacity for agency is central to how individuals exercise personal choice and self-regulation in harm reduction practices, while empathy plays a crucial role in cultivating supportive community environments that enhance these strategies. In connection with agency and empathy, stigma significantly impacts health behavior and outcomes by influencing how individuals are perceived and treated within their communities and their access to health resources. This dissertation leverages these concepts guided by an overarching CPH framework.

Galea (2023, p. 201) argues for an “epidemiology of consequence,” where empirical knowledge is applied to create a healthier world while guided by the moral imperative to improve public health outcomes. This balance is crucial in contexts where health behaviors are stigmatized or misunderstood such as SDU. Mainstream interventions may lack a critical perspective that considers the resilience, social connectedness, and community-driven harm reduction practices (e.g., Boucher et al., 2017). Boucher et al. (2017, p. 2) further noted that, “Public health conceptions of harm reduction do not include the range of strategies that people who use drugs use to reduce harm in their daily lives,” as those with lived experiences are often excluded from the design and development of harm reduction interventions. Moreover, SDU research has primarily focused on GBM and MSM, neglecting other SGD identities such as transgender women, bisexual individuals, and women who have sex with women, who also engage in SDU and face significant health inequities.

Paper 1 is a narrative review that will fill a critical gap in public health scholarship by clarifying the core tenets of the CPH paradigm and identify the communities and contexts in which CPH is most relevant, focusing on socially marginalized or subaltern counterpublics. The narrative review addresses three primary research questions: the defining tenets of CPH, the contexts and applications of current CPH research, and the qualities that public health researchers adopt

to engage in CPH praxis. The objective is to offer an original synthesis of key themes and practices within CPH, enhancing the understanding of its conceptualizations and applications in public health research.

Paper 2 will interrogate and critique the assumption that all individuals within a population conform to the dominant discourse of mainstream public health, specifically regarding SDU in the LGBTQ community. By integrating harm reduction frameworks, this qualitative study emphasizes personal agency and self-regulation, offering a more comprehensive understanding of health promotion practices. The objective is to explore how SGD individuals who engage in SDU employ HIV/STI prevention and drug use risk reduction strategies, navigating and articulating harm reduction within their sexual networks. This research involves interviewing users of sexual networking apps to capture their experiences and perspectives to inform more nuanced and effective public health interventions in harm reduction.

Paper 3 extends the previous study's inquiry to explore the ethical dimensions of SDU among SGD individuals, focusing on the interplay of moral agency, empathy, and stigma navigation. Previous research emphasizes adverse health effects and individual risk management, overlooking the broader social and ethical dimensions that contribute to moral action and harm reduction. Guided by a CPH framework, the study investigates how participants understand and perceive moral action, exercise agency, and express empathy while navigating stigma. This research provides an alternative framework for understanding harm reduction and emphasizing the role of affective empathy, social connection, and collective responsibility in shaping intra-community care practices.

The overarching aim of this dissertation is to critically explore the role of CPH in addressing health disparities among SGD populations, particularly within the context of SDU. Through a comprehensive synthesis of CPH literature, an empirical investigation of harm reduction practices, and an exploration of moral agency and stigma navigation, this work seeks to reframe SDU as a nuanced, context-specific practice rather than a deterministically pathological behavior. Collectively, this work centers the experiential knowledge of community members and understands 'reality' as socially constructed, shaped by social, political, and cultural contexts (Jiao, 2019). The expected contributions of this dissertation to public health research include providing a deeper understanding of the diverse experiences and needs of marginalized communities, providing an approach to challenge mainstream health narratives and promoting more inclusive and culturally sensitive public health interventions. By centering the voices of marginalized populations and valuing local knowledge, this research advances a CPH paradigm, offering a critical lens through which to view public health practices and advance a more equitable approach to defining and addressing health and wellbeing.

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Paper 1 – Synthesis of a 'counterpublic health' approach for public health research: A narrative review of the literature

Traditional public health models often assume rational decision making and overlook how dominant norms can marginalize those who do not conform. *Counterpublic health* (CPH) challenges these assumptions by centering the lived experiences and knowledge of marginalized communities, offering a critical framework for understanding how mainstream discourse shapes health outcomes. Despite its growing influence, a comprehensive understanding of CPH principles and their application to public health remains fragmented across the literature. This narrative review synthesizes the existing CPH literature to articulate its core tenets, contextual applications, and essential qualities for researchers. The review included various formats, including peer-reviewed journal articles and gray literature, with a focus on health among marginalized communities. Searches were conducted in PubMed, Scopus, Embase, among others, using terms "(counterpublic OR counterpublics) AND (health OR medical)." Inclusion criteria centered on literature that incorporated CPH as a guiding theoretical concept or implementation approach. Non-English literature was translated into English using Google Translate. Fifty-one works from 2003 to 2023 were included, predominantly using qualitative research methods globally. Four key tenets of CPH emerged: 1) centering the voices of counterpublics; 2) valuing local knowledge and care practices; 3) emphasizing corporeal learning and embodied practices; and 4) resisting normalizing effects. The literature show the relevance of CPH in various health contexts, highlighting its potential to critique dominant public health narratives, influence policy, and empower marginalized communities. Researchers engaging in CPH adopt qualities that promote continuous dialogue, collective identity awareness, and an expansive outlook, facilitating a more inclusive and ethical approach to public health research. By addressing the shortcomings of traditional public health, CPH aims to advance equitable public health.

Keywords (7): Counterpublic health, public health, counterpublics, theory, review, marginalization, research

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Introduction

Traditional public health operates on the assumption that people are rational decision makers whose health behaviors can be shaped through a variety of standard strategies. This includes individual-level health education and promotion, adherence to evidence-based clinical guidelines, and compliance with health policies and laws. A common thread in these approaches is the presumption that target audiences in their purview, their *publics*, logically accept and follow the dominant discourse that constitutes mainstream public health. Public health programs and interventions operationally define the publics they serve, but this perspective overlooks critical questions: *who* comprises these *publics* or ought to and how these *publics* are conceived in their various contexts. Moreover, this raises concerns regarding the inclusion or exclusion of individuals based on their conformity to collective public health norms. Both marginalization and social exclusion influence health; the former explains how health risks result from discrimination, environmental hazards, unmet basic needs, severe illness, trauma, and lack of access to healthcare, and the latter underscores the lack resources for the marginalized to participate in community health partnerships (Lynam & Cowley, 2007).

The 'public' in public health in general denotes two related but distinct concepts: it refers to 1) the health of people either as the population as a whole or a population's 'collective health' or to 2) the practice or programmatic interventions designed to protect the public's health and organized by either public institutions or through collective effort by citizens (Verweij & Dawson, 2007). Thus, 'public' in public health can signify either the collective state of health of a group of people (i.e., overall health outcomes) or the collective actions taken to maintain or improve the health status of a population. Yet, what is intended to be an inclusive definition has and continues to overlook marginalized groups whose health realities are not as reflected in the field's dominant discourse, therefore interrogating the inclusivity of 'public.' This paradox begs the question of who is excluded from the *public* in public health? Drawing on Michael Warner's concept of publics and counterpublics, counterpublic health (CPH) emerged in the early 2000s as an alternative perspective that challenged mainstream public health paradigms (Race, 2009, 2017; Warner, 2002). It serves as a lens to critically examine the moral underpinnings of public health (i.e., referring to the ideal or "correct" way that the public should behave or exist, which are often determined by dominant cultural or social norms based on a certain moral framework), revealing how dominant ideologies can adversely affect stigmatized groups such as queer individuals, sex workers, and people who use drugs (Hoppe, 2010). CPH has also been referred to as "the cultivation of viable ethics and modes of embodiment" (Albury, 2018, p. 1332; Race, 2009), or a focus on developing ethical frameworks and ways of experiencing and expressing one's physical existence ("embodiment") that are practical and relevant. By doing so, CPH has opened new avenues for understanding and addressing health behaviors and outcomes, particularly in areas such as HIV/STI prevention and drug use, which are often subject to moralized judgments (Hoppe, 2010; Race, 2009).

Although CPH has emerged as an alternative perspective that challenges the normative assumptions and moral underpinnings of mainstream public health, its principles, methodologies, and applications range across various publications and disciplines. A narrative

review serves as an essential step in consolidating these fragmented insights, providing a more coherent understanding of CPH's tenets, the qualities that researchers engaged in CPH have adopted, and the diverse ways they have been studied in real-world contexts. Upon first glance, CPH appears to share certain theoretical views and positions with established public health frameworks, such as Social Determinants of Health (Marmot, 2005), Community-Based Participatory Research or CBPR (Minkler et al., 2003), Ecosocial Theory of Disease Distribution (Krieger, 2014), and Critical Race Theory in public health (Ford & Airhihenbuwa, 2010a). Each of these frameworks, in their own right, critically examines and challenges various normative assumptions and moral underpinnings in the field of public health. However, most of the literature on CPH is seemingly distinct in its approach, focusing specifically on the voices and experiences of marginalized communities. The field lacks an investigation that synthesizes the unique contributions of CPH, particularly how it might extend, complement, or offer alternative perspectives to existing paradigms. The rationale for conducting this review is grounded in three core premises pertinent to CPH as a field of study in public health: the extensive body of literature that exists and has not yet been synthesized in a review, the potential for diverse and often divergent perspectives, and the recognized absence of a consensus on the subject (Ferrari, 2015). This backdrop underscores the need for a narrative review that not only collates and synthesizes the existing body of work, but also appreciates the broader scholarly context within which CPH operates.

This review aims to fill a critical gap in public health scholarship by offering a synthesis of the diverse approaches published to date, thereby enabling researchers to better understand and engage with this paradigm in their work. It also seeks to clarify how authors have identified the communities and contexts in which CPH are most relevant, distinguishing those communities from other counterpublics. Appendix A reviews the historical underpinnings of hegemony in public health, setting the stage for the emergence of CPH. This review specifically focuses on counterpublic communities that fit within a marginalized or subaltern definition, as opposed to counterpublics that may have a critical ideological opposition to the public but are otherwise not socially marginalized. Thus, distinguishing between subaltern counterpublics and 'scientific' or 'defensive' counterpublics is necessary. Appendix B discusses what these alternate counterpublics are and how they may be classified in the context of researching CPH.

Research aims

This narrative review seeks to integrate our understanding of CPH by comprehensively examining CPH literature and synthesizing and categorizing the different research approaches therein. I will employ an inclusive and destigmatizing perspective to center marginalized groups by selecting literature that is sensitive to the stigmatization these populations face in public health contexts. The review is guided by three primary research questions: 1) What are the defining tenets of a CPH paradigm?, 2) In what contexts and applications is CPH research currently being conducted?, and 3) Which qualities have public health researchers adopted to effectively engage in CPH praxis? Through this review, I aim to offer an original synthesis of the key themes and practices within CPH and contribute to a more explicit understanding of their current conceptualizations and applications. This review is the first to synthesize the CPH

literature, direct attention to its essential practices, and describe its application across various research contexts. This narrative review acknowledges that CPH is an established concept but posits that there is value in collating and articulating its diverse interpretations and affordances to public health research.

Methods

This narrative review examines the existing literature on CPH and its application in addressing health among marginalized communities[3], including but not limited to those who are young, women, people of color, and/or LGBTQ+, as well as those who engage in stigmatizing behaviors (Valente & Martins, 2021). Given the diverse nature of the research and data within this field, a systematic review or meta-analysis was not considered because the research and types of data available are so diverse to the extent that neither would be suited for synthesizing the current literature. Instead, I opted for a narrative review to summarize the range of research within CPH contexts and trace the development of this construct, which remains underrecognized by the wider research and professional community. Dividing the literature into key themes structured the framing to analyze the literature (Randolph, 2009). A narrative analysis further grounded this frame in tracing CPH and the line of research related to the findings relevant to that theory; here, "a theory considers a number of issues and each element of the theory provides a set of issues that become researched by that line of inquiry that may or may not have supported or resolved sets of issues" (Bourhis, 2017, p. 2). This methodological choice facilitates a detailed exploration of the various ways CPH has been understood and utilized and highlights its significance and potential in public health research.

In conducting this review, I searched the literature to build on the intersection of theory and application to identify the range of methodologies and research perspectives that have been employed in CPH and to highlight areas that require further research (Randolph, 2009). Recognizing that the critical appraisal standards for conducting narrative reviews are not as comprehensive or standardized as those for systematic reviews, I adapted the Scale for the Assessment of Narrative Review Articles (SANRA) to serve as a benchmark to ensure this study adheres to the highest possible standards for scholarly publication (Baethge et al., 2019). The SANRA criteria that guided the review process included: 1) establishing the review's significance; 2) defining clear specific aims or questions; 3) detailing the literature search

[3] In defining *marginalization*, I draw on an understanding that considers both social and structural determinants of health, as well as the historical context of hegemony in public health practices [see (Baah et al., 2019)]. This conception recognizes the systemic forces that contribute to the continued oppression of certain groups. Marginalization, in this sense, is both a product and a process of hegemonic structures that create boundaries defining 'insiders' and 'outsiders' within health discourse. For a comprehensive exploration of how marginalization is historically contextualized and the conceptual underpinnings that inform this review's study of CPH, Appendix A delves into the mechanisms of marginalization as a social process and emphasizes the need for a CPH approach in mainstream public health that actively challenges these hegemonic power dynamics to advance health equity.

process; 4) accurately referencing key statements; 5) applying scientific reasoning for key arguments; and 6) presenting the data appropriately (Baethge et al., 2019). This procedure ensures that the review is conducted rigorously and contributes to a comprehensive synthesis of the literature.

Search strategy and data extraction

The databases and other search engines I relied on for this narrative review included PubMed, Scopus, Embase, Google Scholar, JSTOR, the Social Science Research Network (SSRN), and the UC Berkeley Library website to retrieve full-text articles and book chapters. I used the following Boolean search string of two combined terms was used to search the literature to maximize the number of relevant results: (counterpublic OR counterpublics) AND (health OR medical). I included (counterpublics) and (medical) to rule out the possibility of additional relevant articles based on one record's alternative phrasing of CPH. I also used a search tracker in a simple matrix table to account for the number of hits per search query. I did not restrict my search by publication year or date in order to widen my search chronologically. To be included in the review, the literature needed to fit the following criteria: a) journal article, book chapter, doctoral thesis, or published report (e.g., program evaluation); b) contains explanation of CPH as a theoretical concept, aspect of study design, or implementation approach; and c) focuses on a public health issue of a specified marginalized population. Figure 1 outlines this selection. The inclusion of various formats and alternatives beyond academic journal articles generates a broader and more inclusive representation of the available literature (Bourhis, 2017). Any literature in a language other than English was translated using Google Translate.

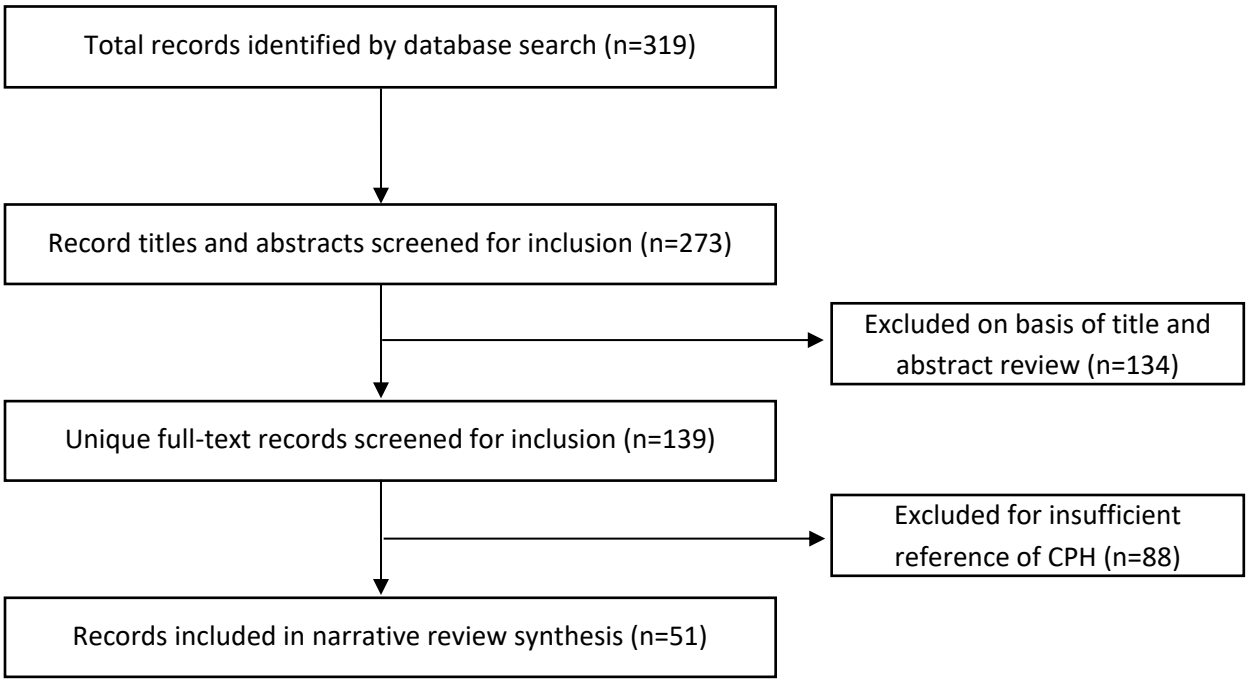

Figure 1: Selection process for identifying CPH research studies and gray literature

The above inclusion criteria for this review ensured that only literature with sufficient reference to CPH were captured. Publications that only summarized CPH-related references and did not contribute to new information were excluded. Literature was also excluded if it only cited CPH as a discussion point at its conclusion or lacked an explication of CPH as a concept guiding the overall objective of the work. If a record's relevance was not explicitly apparent, the author forwarded such records to a second reviewer[4] to confirm its relevance based on the original inclusion and exclusion criteria. Of SANRA's criteria for assessing narrative review articles, two justify the collection of information presented in the data extraction table: *scientific reasoning*, which indicates the quality of the scientific point based on study design and level of evidence if possible, and *appropriate presentation of the data*, which indicates the types of data and summarizes study outcomes that are relevant to the research question (Baethge et al., 2019). The information gathered on each literature sample and methods, analytical approaches, and main findings serve to assess the degree to which the criteria for scientific reasoning and appropriate data presentation are met.

Analysis

To synthesize the references included for this review, I adopted a methodological approach aligned with the standard practices in narrative literature review writing. The synthesis began with a note-taking process that allowed for the organization of common themes from the studies (Green et al., 2006). This prep work facilitated the creation of a coherent narrative that integrates the findings in a manner most useful to the reader and ensuring that both the data and the author's interpretations are clearly conveyed (Green et al., 2006). Consistent with a dynamic process described by (Ferrari, 2015), the drafting of the narrative review initially remained non-linear to reflect the evolving nature of the synthesis as insights and patterns emerged from the literature (Ferrari, 2015). To structure the review effectively, I followed Gregory and Denniss's (2018) recommendation to organize the body of the review thematically and by complexity to enhance clarity and avoid ambiguity. This structured approach ensured that findings flowed logically, with figures used selectively to underscore key points and facilitate understanding.

Results

Table 1 presents an overview of CPH literature organized within a matrix that highlights the following: 1) objective or aim; 2) sample and methods; 3) analytical approaches; 4) CPH theory/implementation; and 5) main findings or results. Where works may not be applicable to fulfill a certain criterion (e.g., not original research or a research study), the label *N/A* is used. The findings of this review are divided into three main parts: 1) an overview of the state of the CPH literature, 2) the synthesis of core tenets for a framework, and 3) a description of research

[4] *The author's Dissertation Chair, Mark D. Fleming, took on the role of second reviewer for ambiguous records.*

contexts and applications. In the first part, I survey the existing body of CPH literature, which includes observing publication trends over time and across geographic regions based on first-author affiliation. Additionally, I identified common themes categorized from literature-specific keywords and outlined the various methodologies and analytical approaches used in these studies. The second part focuses on the synthesis of the concept of CPH. Here, I construct an emergent theoretical framework based on what I identified as key tenets of CPH within the literature. Lastly, the third part then explores the contexts and applications in which CPH work is conducted in research. This approach provides a comprehensive review of existing literature and establishes a foundational understanding of CPH by highlighting its practical implications in public health research and identifying opportunities for future research.

Part 1. The state of the counterpublic health literature

An initial 273 records were identified by a database search. Of these, 134 were excluded based on their title and abstract. The remaining 139 unique full-text records were screened for inclusion, and 89 were excluded because of insufficient reference to CPH within the main text.[5] A total of fifty-one publications (n=51) met the inclusion criteria and were analyzed to fulfill the research aims of this narrative review. Five publications did not use CPH in their main text but cited references that contained CPH in the title and were ultimately included owing to their elaboration or implicit integration of CPH (Engel et al., 2021; A. Farrugia et al., 2021; Johnson, 2015; Lancaster et al., 2017; Malins & Duncan, 2020). Three publications neither noted CPH in their main text nor cited CPH references, but upon review, the papers clearly focused on the intersection of health, counterpublics, and marginalized or subaltern populations (e.g., health counterpublics) and reflected a CPH narrative at face value based on Race's overview (Campeau, 2020; Craddock, 2022; Malkowski, 2014). While these works were ultimately included, the review did not aim to exhaustively account for all similar works – those that discuss counterpublics and health more broadly – particularly if the community of focus was not clearly identified as marginalized. Two non-English publications were translated: one from French (Le Talec & Linard, 2015) and the other from Portuguese (Valente & Martins, 2021).

Geographically, the first authors' professional affiliations were primarily based in Australia (n=32, 63%) and Europe (n=15, 29%), with only three from the U.S. (6%) and one from Asia (2%). All the articles ranged in publication year from 2003 (the first instance CPH is referenced in an academic journal) through 2023 and spanned from exploratory and qualitative

[5] Literature search results were excluded if they: conveyed CPH conceptually within its body text or cited CPH within its bibliography but only focused either on a non-subaltern counterpublic group like COVID-19 anti-vaxxers (Bradshaw, 2022) or primarily non-public health related subject matter [e.g., pleasure from sexual activity like Jagose (2016) or substance use like Bøhling (2017)]; only cited CPH in its discussion text [e.g., health research on poppers or alkyl nitrites use among gay, bisexual, and other men who have sex with men (Schwartz et al., 2022)]; or focused on a clear public health issue but did not specify a defined community or target population [e.g., health crisis communication through art advocacy in the overall opioid epidemic (Taylor & Glowacki, 2023)].

studies to literature reviews and doctoral theses to chapters from edited or authored books. Figure 2 shows the yearly distribution of publications from 2003 to 2023 by geographic origin. From 2015 to 2019, the average annual output was approximately three per year, which rose to about eight per year from 2020-2022, peaking in 2022 at nine. This peak is likely reflective of a heightened focus on CPH perspectives (e.g., COVID-19 related) and suggests growing scholarly interest in the field. The 2010s also saw a consistent output, especially between 2014 and 2019, where each year witnessed at least one study from Australia, Europe, or the United States, with Australia leading in the frequency of publications, followed by Europe and then the U.S. The 2000s, on the other hand, showed a nascent stage of CPH literature with sparse outputs, where only one publication from Australia was recorded for both 2003 and 2009. Interestingly, the figure shows a modest re-emergence in contributions from the United States in 2020, indicating a possible continued interest in CPH topics within the nation. The first and only publication hailing from Asia (Philippines) emerged in 2023. Overall, the distribution of publications by year and first author affiliation underscores the fluctuating but generally increasing scholarly attention to CPH issues over the past two decades.

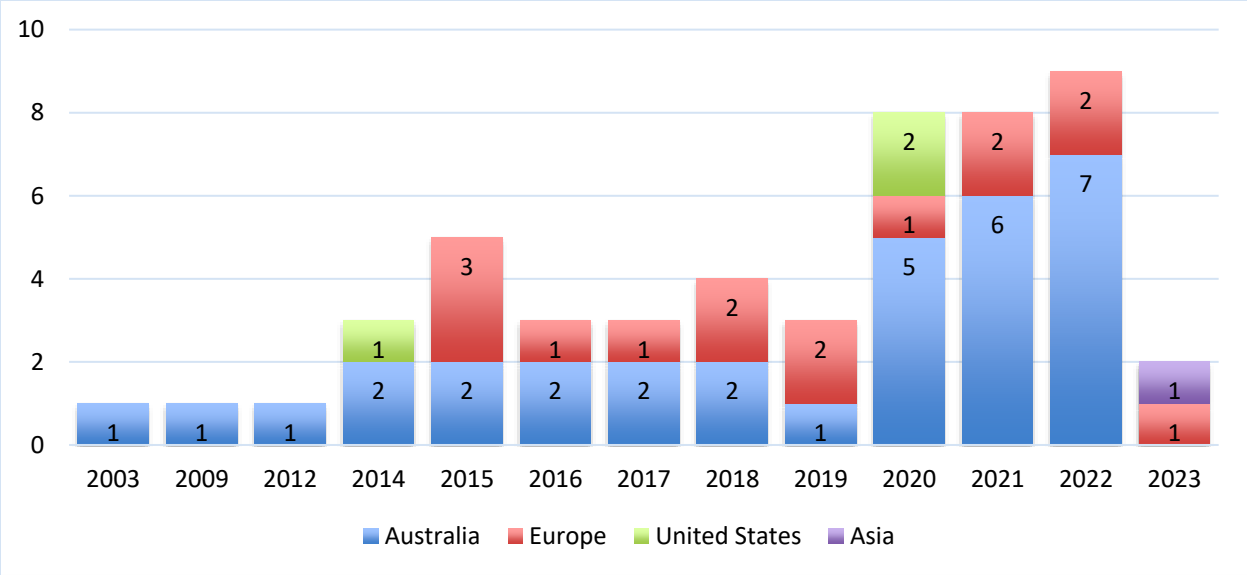

Figure 2. Frequency of publication by year and first author geographical affiliation (n=51)[6]

When specific keywords or phrases were assigned to a publication for search discoverability and field specification (n=35), four broad disciplinary thematic areas emerged from the literature: health sciences (e.g., public health, drug policy and treatment, and sexual health); social sciences (e.g., sociology, anthropology, psychology, and political science); cultural and media studies (cultural studies and digital and media studies); and science,

[6] The literature search process concluded in June 2023, thereby not accounting for the remainder of that year.

technology, and critical theory (science and technology studies and critical theory). Health sciences encompass fields that focused on health outcomes, prevention, and treatment. Social science disciplines focus on human behavior, social structures, and governance. Cultural and media studies focus on the influence of culture and media on societal perceptions and behaviors. Lastly, science, technology, and critical theory collectively focus on critiquing or deconstructing established norms and practices. As these publications may fall under multiple categories, the four thematic areas are not mutually exclusive. The keyword lists with their respective citations can be found in Table 2.

Methodologies and analytical approaches

Of the 51 works, the majority of CPH literature predominantly utilized qualitative research methods, showcasing a wide array of specific approaches and diverse analytic frameworks. Among these studies, a significant portion relied heavily on individual interviews, including key informants and in-depth and semi-structured interviews, making it the most prominent methodology (n=38). This approach was extensively used in studies conducted in Australia, France, and the United States, among others. Ethnographic techniques, including multi-site ethnography and participant observation, were also significant components, used in various forms across seven studies. Focus groups were employed in a small number of cases (n=3), with instances in Uganda and the UK. One study conducted discourse analysis based on responses to a singular event (Barratt et al., 2014). In terms of quantitative research methods, only two studies explicitly relied on this approach: one aimed at generating descriptive statistics for its population (Bryant et al., 2019), and the other employed a “quali-quantitative” approach for digital textual analysis (Petersen et al., 2019). Race's (2003) earlier work evaluating research on gay men's sexual behaviors in the context of emerging medical technologies for HIV/AIDS prevention laid the groundwork for what would now be recognized as CPH, distinguishing his contribution as a precursor rather than a comprehensive review of CPH itself. In it, Race called attention to “the quality and availability of public contexts within which embodied and lived experience can be brought into articulation with medical knowledge, raising the value of what is here described as ‘counterpublic health’” (Race, 2003, p. 369).

There is a growing trend in CPH literature that utilizes online platforms and digital media for research. A notable number (n=16) explicitly involved online or digital components. This includes research conducted through online forums, social media platforms, and digital patient record systems. The use of online platforms ranged from *netnographic* approaches to analyzing discussions on websites such as Reddit to examine digital health records and online media content.

The analytical frameworks and processes used in the CPH literature reveal a diverse range of approaches to address their research questions and contexts. Thematic analysis emerged as the most common method used in various forms (n=15). This approach, grounded in frameworks such as the Foucauldian perspective, containment rhetoric theory, and assemblage theory, allowed for the nuanced exploration of patterns within data and employed both inductive and deductive coding techniques. Content analysis, a method for analyzing the

content of text or other communication media for themes, patterns, and meanings, was reported in seven studies. Discourse analysis, a method that delves into the use of language in texts and contexts, was reported in six studies. This approach is instrumental in unraveling the social construction of health issues and offers insights into how language influences perceptions and experiences. Grounded theory, aimed at theory development from collected data, was another frequently used method, appearing in five studies. This is particularly valuable in exploratory research, where the existing knowledge is limited. Other analytical methods included empirical phenomenological psychological protocols, biographical or narrative analysis, science and technology studies (actor-network theory), and assemblage theory (n=5).

Sampling of participants across the 51 works was characterized by varying depth and scope.[7] Studies with human subjects showed a wide range of sample sizes; a significant portion of the studies had participant numbers ranging between 10 and 50 (n=28). Another substantial group of studies included more than 50 participants (n=12), pointing towards a broader scope of inquiry. A smaller segment had fewer than 10 participants (n=5), indicating highly focused, in-depth exploration. However, some studies had unspecified sample sizes (n=6), reflecting the varied nature of qualitative research. In terms of data sources beyond human subjects, the literature demonstrated a reliance on diverse materials. This included a study analyzing approximately 1.1 million words from an online forum, another scrutinizing over 6,000 news articles, and one examining national strategy documents. These approaches highlight the use of extensive and varied datasets, ranging from digital discourse to policy documents. The works collectively did not rely on methodologies that were intended to quantitatively evaluate a statistical hypothesis but instead focused on in-depth, contextual, and often narrative-based insights.

The predominant sampling method observed was purposive sampling, which was used in 31 studies. This method is favored in qualitative research because of its effectiveness in selecting information-rich cases relevant to the study's aims. Convenience sampling was another frequently used approach, reported in 16 studies, often chosen for its practicality and ease of access to participants. Snowball sampling, where existing study subjects recruit future subjects from their social connections, was utilized in 10 studies, proving useful in reaching populations that may be difficult to reach through other sampling methods. A few studies employed more specialized sampling techniques, such as referral sampling and netnographic sampling, to suit specific research needs, such as studying online communities or specific subgroups within a population.

[7] Discussing sample sizes (in qualitative research) may appear as merely quantifying the research, but it is indicative of the methodological approaches tailored to specific research questions. Thus, it is important to note that that the significance of sample sizes is not in their numeric value, and rather in how they enable researchers to achieve depth and comprehensiveness of understanding and theoretical saturation. For example, a review of studies that used grounded theory to analyze interview data noted that saturation normally occurs between 10 and 30 interviews, with 30 facilitating pattern, category, and dimension growth and saturation (Thomson, 2010).

Overall, the CPH literature in this review primarily utilized qualitative research methods and showcased a broad range of methodologies and sample sizes. This variation resulted in a wide range of analytical approaches and data sources being used to frame the results and findings. The emergence of online and digital platforms in the literature highlights a shift toward exploring how modern communities engage in counterpublic formations and health-related activities in digital environments.

Part 2. Concept synthesis for an emergent theoretical framework

This section presents the synthesis of core tenets for a CPH framework as identified through this narrative review. Figure 3 provides a visual summary of these tenets, categorizing them into four core dimensions: 1) centering narratives of counterpublics in populations, 2) valuing local knowledge and care practices, 3) emphasizing corporeal learning and embodied practice, and 4) resisting normalizing effects.

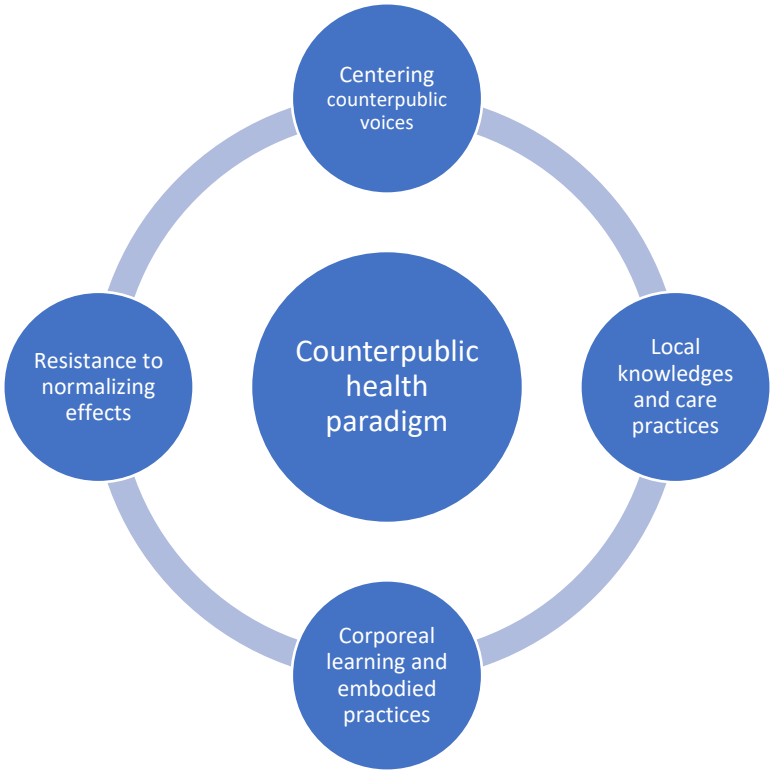

Figure 3: Four tenets of a counterpublic health framework

First, the majority of studies and gray literature indicate that CPH actively centers counterpublic voices [see (Bell & Aggleton, 2012; Campeau, 2020; Craddock, 2022; Davis et al., 2022; Drysdale et al., 2021; Duff & Moore, 2015; Engel et al., 2021; A. C. Farrugia, 2016; Gonçalves et al., 2016; Lasco & Yu, 2023; Møller & Hakim, 2021; Pienaar et al., 2021; Pires et al., 2022; Race, 2009, 2018; Rance et al., 2021; Rasmussen & Leahy, 2018; Sanders et al., 2020;

Smith, 2022; Valente & Martins, 2021; Wright, 2014)], ensuring that health narratives, strategies, and interventions explicitly include and benefit those who have historically been marginalized. While mainstream public health research often considers marginalized populations, CPH uniquely focuses on the perspectives and experiences of these groups, recognized as counterpublics. The literature highlights a community-driven approach in which health narratives are co-constructed through collective discussions and evaluations, thereby challenging traditional expert-led health models. This approach positions marginalized individuals and communities not only as subjects of research but also as active agents who contribute to reshaping public health discourse. Such a core aspect from the CPH literature seeks to destabilize established norms (specific styles, languages, and behaviors) that traditional publics have universalized, challenging the codes that privilege certain embodied ways of life as the norm (Race, 2003; Warner, 2002).

Second, several works underscore the significance of local knowledge and care practices in CPH, treating lived and experiential knowledge as crucial expertise [see (L. Alexandrescu, 2017; Bell & Aggleton, 2012; Campeau, 2020; Conway et al., 2022; Drysdale et al., 2021; Engel et al., 2021; Gonçalves et al., 2016; Harris et al., 2018; Lasco & Yu, 2023; Le Talec & Linard, 2015; Murphy et al., 2022; Pienaar et al., 2021; Pires et al., 2022; Race, 2003; Sanders et al., 2020; Van Hout & Hearne, 2015)]. This dimension of CPH encourages reciprocal exchange of knowledge between communities and institutional actors, thereby understanding the importance of local expertise in shaping health practices and narratives. Counterpublic members are distinguished by their unique care practices, which serve to maintain both their own health and the well-being of that group, whether through deliberate actions or as a result of their lifestyle. While local expertise is valued, these literatures do not promote simple rejection of mainstream public health approaches or tools. Instead, they suggest that the adoption of such approaches by counterpublics can still be framed and interpreted through a CPH lens, emphasizing the adaptation, customization, and application of these tools in a manner that meets the distinct needs, experiences, and cultural contexts of marginalized groups. This dimension supports the utilization of not only practices unique to counterpublics but also mainstream approaches that are meaningful and tailored to their specific realities.

Third, several works also emphasize corporeal learning and embodied practices in CPH (i.e., the physical and tangible experiences learned by the body and activities that engage the body as to “do” and “feel) [see (L. Alexandrescu, 2017; Bell & Aggleton, 2012; Conway et al., 2022; Engel et al., 2021; Lasco & Yu, 2023; Le Talec & Linard, 2015; Murphy et al., 2022; Pires et al., 2022; Race, 2003; Rance et al., 2021; Rasmussen & Leahy, 2018; Sanders et al., 2020; Van Hout & Hearne, 2015; Wright, 2014)], understanding health as usually situated outside institutional frameworks that may rely on detached quantitative measures or observation. Corporeal learning recognizes learning through lived experience, social interactions, and personal encounters with health and illness, and the importance of sensory experiences, emotions, and physical interactions (Race, 2009). Embodied practices highlight the possession of practical knowledge rooted in lived experience and familiarity with the environments/contexts and actors in situations that confer potential health risks (Gonçalves et al., 2016). These literatures convey how lived experiences allow for the development of

contextually appropriate and ethically sound health interventions, supporting the prior introduction of CPH as "the cultivation of viable ethics and modes of embodiment" (Albury, 2018, p. 1332; Race, 2009) or the development of ethical frameworks and ways of experiencing and expressing one's physical existence that are practical and relevant.

While the majority of reviewed studies explore counterpublics that do not explicitly seek validation from scientific or medical authority, there are notable exceptions. For example, Farrugia and Fraser (2017) discussed a health counterpublic's skepticism towards mainstream drug information alongside their appeal to standard public health values, such as reason, scientific knowledge, and objective reality, thereby enacting the rationality of health promotion it asks of them. Similarly, Alexandrescu (2017; 2016) explored a counterpublic's shift from injecting heroin to using novel psychoactive substances as a means to avoid "junk identities" and resist risk-management strategies. In a political context, Lasco and Yu (2023) examine how individuals within a national drug war context strive to embody the exceptional "good 'pleasure citizen'" in chemsex scenarios by selectively avoiding "extreme" drugs and their associated users through concepts of "healthy" vs. "unhealthy" drug use. These examples illustrate the complex ways in which counterpublics may both challenge and adopt conventional public health values such as scientific facts and government policies. This suggests that "counterpublic health norms are not intrinsically more free or accepting than public ones," which poses the potential to enact a certain violence on the people comprising them (A. Farrugia & Fraser, 2017, p. 610; Race, 2009).

Fourth, CPH literature predominantly challenges the normalizing effects found in traditional public health, such as the use of rigid social categories/measurements or the reductive definition of individuals by their personal choices [see (L. Alexandrescu, 2017; L. G. Alexandrescu, 2016; Bell & Aggleton, 2012; Bolton, 2020; A. C. Farrugia, 2016; Lasco & Yu, 2023; Le Talec & Linard, 2015; Møller & Hakim, 2021; Pienaar et al., 2021; Race, 2003, 2009; Rasmussen & Leahy, 2018; Sanders et al., 2020; Smith, 2022; Valente & Martins, 2021; Wright, 2014)]. This advocates for a more nuanced understanding of health like pleasure and its role in sexuality or behaviors deemed 'risky.' This resistance was notably directed against cis-heteronormative assumptions that often exclude or marginalize LGBTQ+ experiences and the notion that youth or young adults' behaviors are solely the result of informed decision-making through education. These literatures highlight the complexity of their experiences and choices. This aspect of CPH aims to empower communities to exercise agency to define health, interpret health data, and focus on positive, lived experiences that challenge dominant narratives emphasizing risk and harm (Davis et al., 2022; Engel et al., 2021). By considering the three aforementioned dimensions of CPH, this last dimension contributes to redefining how marginalized identities and practices are perceived and understood by dominant groups.

Through these four dimensions, the integration of CPH framework into mainstream public health research presents a comprehensive critique of, and an alternative to, dominant public health paradigms. It advocates health promotion approaches that are more inclusive, ethical, and responsive to the needs and desires of marginalized groups. Through the synthesis of a preliminary theoretical framework, the conceptual insights developed within the CPH

literature have the potential to challenge and enrich mainstream approaches. Drawing parallels with the development and adoption of CBPR as a transformative approach within public health, CPH research could similarly influence and reshape public health norms by embedding its principles of inclusivity and community engagement to counterpublic voices. This dynamic interaction outlines a pathway for CPH-based research to not only critique but also constructively contribute to a more equitable public health.

Part 3. Contexts and applications in counterpublic health research

Contexts

CPH literature spanned a myriad of research contexts (i.e., circumstances, conditions, or settings for something's existence or occurrence). This research illuminated diverse health narratives, which broadly included health practices, communities, major crisis events, and institutional settings. For instance, substance use consistently emerged as a pivotal behavioral topic, with emphasis on harm reduction and treatment modalities for people who inject drugs or use other illicit drugs (n=28). Injection drug use proved to be a recurring behavior of interest, either in individuals living with or affected by hepatitis C or drug addiction and recovery. For example, Bryant et al. (2019) describe the knowledge and perceptions of direct-acting retroviral treatment for HCV, and Brookfield et al. (2022) explore the cyclical process of transitioning to abstinence from harmful drug use of methamphetamine. Both recognize the complexity of substance use recovery and its intersection with infectious diseases. Sexual activity (n=16) in relation to either HIV/AIDS or safe sex and sexual health was found to be a concern particularly for gay and bisexual men as well as youth or young adults, respectively. For example, Malkowski's (2014) discussion of bug chasers, gay men who desire to voluntarily contract HIV, highlight how they organize in opposition to dominant health discourses through health resistance rhetoric, and Farrugia et al. (2021) explore the processes of how young people assess the credibility of online sexual health information. This focus on substance use and sexual health within the literature underscores a need for nuanced public health strategies that prioritize harm reduction and the well-being of affected communities.

A salient focus in the literature is the exploration of pleasure and its associated behaviors (n=16). All CPH literature that touched on the concept of pleasure were rooted in either illicit drug use [see (Engel, 2020; Valente et al., 2018; Valente & Martins, 2021)], sexual activity [see (Bell & Aggleton, 2012; A. Farrugia et al., 2021; A. Farrugia & Fraser, 2017)], or both (i.e., sexualized drug use) [see (Lasco & Yu, 2023; Le Talec & Linard, 2015; Møller & Hakim, 2021)]. By understanding how individuals in counterpublic communities navigate pleasure within contexts often stigmatized by mainstream health discourses, these works contribute to our insights into the role of pleasure in harm reduction strategies and the reevaluation of discourses that typically marginalize or ignore pleasure-seeking behaviors. Resistance to conventional health discourses and norms also pervade this tension among certain literature (n=9). For example, Barratt et al. (2014) analyze drug-use discourses on online forums, specifically reactions to a woman's death from para-methoxyamphetamine in Australia, and Lancaster et al. (2017) examine impacts of 'evidence-based policy' and 'consumer participation'

in drug policy, focusing on the role of 'consumer' and power dynamics. By analyzing online discourses and policy impacts, these works argue for approaches that respect individual agency and the complexity of human behaviors and for a more inclusive and empathetic public health.

The digital age has spawned online communities (n=16), increasing the Internet's already important role in the seeking of health-related information and cultivating community identity as they relate to subaltern counterpublics[8]. Beyond studies that relied on online communication channels for primary data collection, the primary context for engagement in these spaces primarily involved secondary data from either community members who sought out health information/advice or experiences, particularly related to substance use or sex and harm reduction [see (Hamilton, 2019; Johnson, 2015; Lea et al., 2020; Petersen et al., 2019)] or media reporting and portrayals of key topics including queer identity and HIV, sexual health, and the COVID-19 pandemic [see (Albury et al., 2020; Davis et al., 2022; Manlik, 2022; Pienaar et al., 2021; Race, 2018)]. More recent CPH works also studied **crisis contexts,** specifically the COVID-19 pandemic (n=5). For example, Conway et al. (2022) studied how individuals receiving opioid agonist treatment (who are at higher risk of comorbidities, poverty and discrimination) implemented practices of care to mitigate negative health outcomes during COVID-19. Murphy et al. (2022) describe the ways gay and bisexual men minimized the risk of COVID-19 during sexual encounters in response to dominant public health discourses rooted in heteronormative assumptions. The study of online communities and crisis events highlights the transformative role of digital spaces and community-driven responses in facilitating access to health information and the formation of supportive networks for marginalized groups.

Lastly, the research extends into diverse institutional settings, exploring issues within prisons focused on injection drug use and HCV infection (n=2), educational establishments or schools focused on sexual health or drug use education (n=4), and healthcare and social service entities (e.g., provider perspectives or clinical environment) (n=9). In the context of prisons, Lafferty and colleagues (2022; 2020) investigate the perspectives of inmates on HCV reinfection risks and treatment outcomes. They explore the unique challenges of managing HCV in prisons and the inmates' nuanced understanding of reinfection post-cure. In a school setting, Malins and Duncan (2020) evaluate the 'Smarter About Drugs' program within schools in Victoria to assess its impact on drug education and its potential for broader implementation across Australian educational settings. In a clinical setting, Goutzamanis et al. (2021) delve into community health clinics to explore the dynamics of information sharing about direct-acting

[8] According to Schudson (2023, p. 155), "Some online spaces facilitate the formation of networked counterpublics, which are self organised discursive spaces created via networked technologies (e.g. social network sites) that develop from and around socially subordinated groups and ideas (boyd and Ellison 2007; Renninger 2015). More generally, publics are self-organised discursive spaces that come into being around a circulating text, and counterpublics are a specific form of public defined by self-awareness of its socially subordinated status (Warner 2002)." Thus, online communities provide a critical methodological space of analysis in which marginalized communities can engage each other in counterdiscourses and local practices of care to resist hegemonic forces.

antiviral treatments for hepatitis C among peers undergoing treatment. Investigations into various institutional settings reveal the complex interplay between environment and health, emphasizing the importance of tailored interventions that respect unique institutional contexts faced by marginalized populations like those within prisons, schools, and healthcare systems.

Applications

The literature yielded various research applications (i.e., how something is implemented for a specific aim in a practical scenario) to investigating public health issues. Applications of CPH broadly encompassed 1) criticizing normative public health, 2) highlighting alternative health discourses, 3) reframing existing health policy, and 4) empowering marginalized communities. Central to CPH in research is its purposeful critique of mainstream public health paradigms that reinforce dominant norms while excluding alternative discourses and values. For example, Wright (2014) calls into question the individualistic tendencies of health education and advocates for an approach that acknowledges the diverse lived experiences of young individuals. Petersen et al. (2019) delves into skepticism around the use of cognitive enhancement substances (largely stimulants) and a nuanced landscape of self-medication practices to underscore the complex decision-making processes individuals navigate outside medical advice. Duff and Moore (2015) assess the drug-treatment response to methamphetamine use and highlight a disconnect between public health strategies and the nuanced socio-cultural contexts of drug users. Engel (2020) furthers this critique by examining online forum discussions on drugs, their usage, and policies, to counteract societal prejudices and the medicalization of drug use. In applying this critical lens, CPH empowers marginalized communities to exercise agency and amplify their voices in health dialogues [see (Bryant et al., 2019; Duff & Moore, 2015; Engel, 2020; Goutzamanis et al., 2021; Hamilton, 2019; Johnson, 2015; Lancaster et al., 2017; Malins & Duncan, 2020; Malkowski, 2014; Petersen et al., 2019; Race, 2003; Sanders et al., 2020; Wright, 2014)].

CPH has also presented alternative narratives in research to draw attention to unique perspectives on health, risk factors, and treatment options often overlooked or stigmatized by a conventional health paradigm. For instance, Bell and Aggleton (2012) describe the emergence of alternative discourses in HIV prevention to challenge moral dogmas by government-led programs and encourage dialogues that resonate with young people's realities. Barratt et al. (2014) explore online discourse following a drug-related death and establish drug-user subjectivities that do not align with drug use as disorder or a risk-avoidant subject, but rather embraces the complexity of drug user experiences (i.e., the pursuit of pleasure, the negotiation of risk, and the political implications of public discourse on drug use). Manlik (2022) explores the representation of sexual minority women in a prominent Australian LGBTQ women's magazine and underscores the need for inclusive health communication that acknowledges and addresses the diverse identities and experiences within the LGBTQ community. Lafferty et al. (2020) interrogate the notions of 'treatment as prevention' in hepatitis C and argue for a health dialogue that reflects perspectives of incarcerated people who inject drugs. With this application, CPH calls for an intentional research inquiry into the individual and collective experiences of counterpublics that challenge assumptions in stigmatized behaviors and/or

associating with certain social identities [see (Albury et al., 2020; Barratt et al., 2014; Bell & Aggleton, 2012; Bolton, 2020; Campeau, 2020; Conway et al., 2022; Craddock, 2022; Davis et al., 2022; Engel et al., 2021; Lafferty et al., 2020; Manlik, 2022; Valente et al., 2018)].

Beyond the theoretical discourse, CPH perspectives in research can also pose tangible policy implications and offer insights into refining health regulations and directives. For example, Harris et al. (2015) explore the limitations of the conventional TasP approach for hepatitis C and suggest a need for policies that more accurately reflect the experiences and challenges of those affected. Valente et al. (2018) underscore the importance of engaging with peer networks and the role of outreach teams in healthcare and point to the effectiveness of community-driven strategies in informing health policy. Møller (2023) offers fresh perspectives on how digital counterpublics operate and show the potential for these spaces to inform health policy through engaged, constructive dialogues free from the constraints of traditional public health discourses. Murphy et al. (2022) demonstrate a community's adaptability and resilience of communities in the face of the COVID-19 pandemic, suggesting that health policies should be inclusive and responsive to evolving needs. By highlighting the lived experiences of marginalized groups, CPH in research could inform and transform health policy to be more inclusive and responsive to diverse needs [see (Brookfield et al., 2022; Duff & Moore, 2015; Harris et al., 2015; Lasco & Yu, 2023; Le Talec & Linard, 2015; Malkowski, 2014; Møller, 2023; Murphy et al., 2022; Pires et al., 2022; Race, 2009; Rasmussen & Leahy, 2018; Valente et al., 2018; Van Hout & Hearne, 2015)].

Furthermore, CPH in research could promote a grassroots approach as its applications are deeply rooted in community engagement and active participation in and shaping discussions about health that affect them. The empowerment of marginalized communities is articulated by Race (2009), who accentuates the agency of at-risk groups by valuing alternative norms and experiential learning within queer cultures. Albury (2018) showcases how coalition efforts between scientists, clinicians, and affected communities can lead to empowering advocacy and effective HIV treatments. Rance et al. (2021) reveal how universal access to hepatitis C medication grants revised notions of citizenship and promotes social inclusion for individuals who inject drugs. Similarly, Pienaar et al. (2021) call for a care ethic that recognizes and builds upon the self-determined health practices of communities to highlight the need for health research that is deeply engaged with and shaped by the communities it serves. This entails into research methodologies that are characteristically participatory and community based [see (Albury, 2018; L. Alexandrescu, 2017; Drysdale et al., 2021; A. Farrugia et al., 2021; A. C. Farrugia, 2016; A. Farrugia & Fraser, 2017; Gonçalves et al., 2016; Lea et al., 2020; Pienaar et al., 2021; Race, 2009; Rance et al., 2021; Smith, 2022; Valente & Martins, 2021)]. Through these applications, CPH emerges as a transformative lens in public health by challenging conventional paradigms, promoting inclusivity, and advocating for policies and practices that genuinely reflect the needs and voices of all community members.

Discussion

This review synthesizes the literature on CPH and describes its conceptualization and application across diverse contexts to address the health needs and desires of marginalized populations. The majority of CPH literature were situated in Australia and Europe with a growing interest in in substance use, sexual health, and online communities. The literature spans from exploratory and qualitative studies to literature reviews and doctoral theses, showcasing the extensive scope and depth of CPH research. The review identified four broad disciplinary thematic areas: health sciences, social sciences, cultural and media studies, and science, technology, and critical theory. Qualitative research methods dominated the literature, with individual interviews, ethnographic techniques, and focus groups being the most common approaches. The analytical frameworks used in these studies are diverse, with thematic analysis, content analysis, discourse analysis, and grounded theory being the most prevalent.

Actively centering counterpublic voices, which is a necessary shift toward a more equitable public health, is significant. This shift not only acknowledges but also prioritizes the lived experiences and needs of marginalized populations. Recognizing local expertise and knowledge, especially in terms of their own health practices, CPH fosters a more inclusive and ethical approach that respects and utilizes local knowledge systems and practices. This approach challenges mainstream understandings that often underpin public health policies and frequently overlooks or undervalues grassroots knowledge. Moreover, the focus on corporeal learning and embodied practices suggests a more holistic view of health by recognizing the importance of sensory experiences and physical embodiment in those experiences. This understanding can lead to health programs that are not only more comprehensive but also more attuned to the physical and emotional contexts of the individuals they aim to serve.

The synthesis of core tenets for an emergent theoretical framework identifies four key dimensions of CPH: centering the narratives of counterpublics, valuing local knowledge and care practices, emphasizing corporeal learning and embodied practices, and resisting the normalizing effects of traditional public health. These tenets challenge conventional health paradigms by advocating for inclusive, community-driven health narratives and interventions. The review underscores the importance of understanding health behaviors within the contexts of pleasure, resistance, and online digital engagement. By exploring diverse institutional settings such as prisons, schools, and healthcare facilities, the review reveals the complex interplay between environment and health, emphasizing the need for tailored interventions that respect the unique contexts faced by marginalized populations.

Lastly, the resistance to normalizing effects found in traditional public health discourses, such as rigid categorizations or stigmatization of certain behaviors, calls for a reevaluation of what constitutes health and who defines it. This resistance is crucial for developing health policies that genuinely reflect the diversity of human experiences and promote a broader, more inclusive definition of health. Nevertheless, it will be crucial for the researcher, whether they have a personal or professional orientation to the population group or health condition or behavior in question, to familiarize themselves with the social marginalization or subordinated status of the population in terms of their counterdiscourses or actions of resistance against mainstream public health efforts.

Qualities for a counterpublic health research praxis

What if the concern was not CPH merging into the mainstream, but rather the mainstream transformation into a CPH? Could we imagine a more inclusive and ethical public health for all? How would this look like in research practice? The integration of CPH principles into mainstream public health calls for a deliberate approach that can be operationalized and enacted in the role of the researcher – a praxis[9]. This entails applying the tenets of a CPH paradigm in practice throughout their work with members of marginalized populations. To do so, I propose six key (characteristic) qualities for researchers to adopt or prioritize their engagement with a CPH praxis (Figure 4). While empirically less developed compared to the broader synthesized CPH framework, this working praxis can still be derived from key CPH literature that point to the formation and maintenance of effective participant-researcher interactions (see Lafferty, 2022) and, by extension, community-academic partnerships.

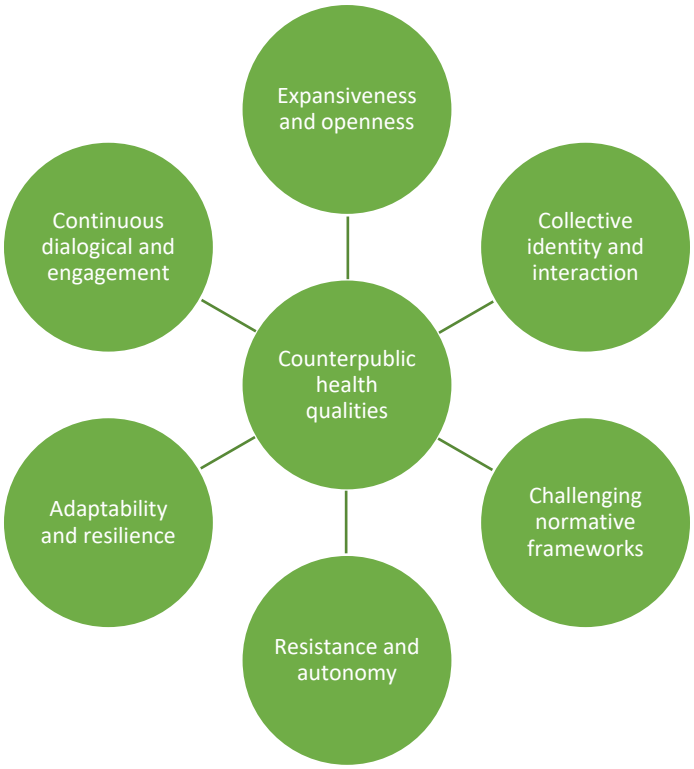

Figure 4: Six key qualities for a counterpublic health research praxis

[9] Inspired from Ford and Airhihenbuwa's (2010b) Public Health Critical Race praxis, "(i.e., an iterative methodology), [which] combines theory, experiential knowledge, science and action...)" (p. 1391)

To facilitate cooperative interactions, public health research entities first need to establish transparent decision-making processes that must include representatives from marginalized communities to maintain the integrity of CPH initiatives. The quality of expansiveness and openness is integral for centering diverse community voices in research, thereby legitimizing a discursive arena in which knowledge is not limited to traditional credentials and expertise, and aims to destigmatize harmful stereotypes (Campeau, 2020; Race, 2009; Rasmussen & Leahy, 2018; Van Hout & Hearne, 2015). Indeed, Race (2009) earlier on described CPH as the "the cultivation of viable ethics that contend not only with the challenges of disease transmission and progression, but also the mass-mediation and medico-moralization of pleasure and health" (p. 169). This research practice not only facilitates the articulation of nuanced health identities of marginalized groups, but also supports the development of inclusive health initiatives that are culturally resonant and community specific.

Any community-academic partnership calls for ethical oversight, potentially through committees of diverse stakeholders, including members of the impacted population, to provide ethical direction to CPH efforts (Muhammad et al., 2015). Central to CPH is the quality of collective identity and interaction, where the researcher responds to how a community shares and shapes health practices that resonate culturally, but are often at odds with mainstream views (Bolton, 2020; Johnson, 2015; Lasco & Yu, 2023; Møller, 2023). This underlines the importance of spaces in which individual and communal identities can express and shape health practices. The quality of challenging normative frameworks also encourages and advocates the inclusion and acknowledgement of alternative perspectives to build more inclusive, equitable health approaches that meet the needs and desires of individuals (Bryant et al., 2019; Conway et al., 2022; Engel et al., 2021; Race, 2009). By highlighting the need for health strategies that acknowledge complex realities and desires such as drug use and sexual practices, this approach challenges the stigma and discrimination embedded in mainstream public health.

Once engagement is established and alternative perspectives are included, participants must maintain autonomy to ensure that CPH principles and actions remain under the guidance of the communities they serve to prevent undue external influences that aim to dilute or co-opt CPH goals. The quality of resistance and autonomy calls for researchers to recognize and honor individuals' opposition to normalizing effects in standardized health models (Barratt et al., 2014; Davis et al., 2022; Race, 2009; Sanders et al., 2020). This underscores the importance of respecting and advocating for people's right to define their health and well-being such as the acknowledgment of pleasure as integral to safety protocols within queer communities and resisting the information deficit model of health promotion.

For these interactions or partnerships to flourish, iterative feedback mechanisms must be considered. To build robust communication channels, the quality of continuous dialogue and engagement between mainstream public health entities and counterpublics where members of each side iteratively critique mainstream health practices to uncover their limitations and highlight more ethical alternatives (Albury et al., 2020; Bell & Aggleton, 2012; Gonçalves et al., 2016; Lafferty, 2022). Such engagement, as exemplified in community-driven health programs and safe-space discussions, enables counterpublics to assert their health narratives and needs.

However, when it comes to critical evaluation of CPH initiatives, counterpublic communities will need to regularly evaluate their real-world impact to ensure that they meet their objectives and make adjustments if necessary.

Responsive adaptation of ongoing CPH efforts could be considered a final collaborative approach. Both communities and academic institutions will need to anticipate responding to new challenges and risks as they adapt their CPH strategies. Researchers should acknowledge the quality of adaptability and resilience to dynamically respond to evolving challenges (Pires et al., 2022; Race, 2009; Valente et al., 2018; Valente & Martins, 2021). As seen in community-led initiatives that responded creatively to shifting sexual practices and the AIDS epidemic and more recently drug use trends and the COVID-19 pandemic, this highlights the dynamic nature of community health needs and the importance of flexible and responsive research approaches.

By being attentive to a collective Identity and Interaction and participating in continuous dialogue and engagement with community members, researchers commit to centering and amplifying the narratives of marginalized populations. Doing so ensures that these narratives are not only represented but also dynamically informed to stay relevant to their health needs and desires. Acknowledging a community's adaptability and resilience in responding to a public health issue also highlights grounding public health research in real-world, lived experiences. Community resistance and autonomy alongside researcher engagement in challenging normative frameworks synergistically work together to resist normalizing effects of dominant health narratives. Finally, adopting an expansive and open outlook by the researcher facilitates the appreciation of local knowledge and care practices and elevates diverse expertise beyond academic credentials and a more viable ethics to the fore of public health. With these key characteristic qualities for engaging in a CPH research praxis together with the broader dimensions of a CPH paradigm, the synthesis of a CPH approach from this review serves as a preliminary theoretical framework for researchers interested in adopting a more inclusive, ethical, and innovative approach to their public health projects.

Implications for counterpublic health

A CPH research paradigm and praxis can yield positive change in the public health sector. One outcome is the generative push for even greater inclusivity, ensuring that health policies and practices cater to a broader spectrum of society and not just the hegemonic majority. This principle of inclusion not only provides a comprehensive understanding of the multifaceted health challenges experienced by diverse groups but also enables them to assert agency over their health narratives and outcomes.

CPH stands to promote substantial moral and cultural shifts within public health, as it has the capacity to untangle the interplay of social issues through an intersectionality lens (Manlik, 2022; Sanders et al., 2020; Smith, 2022). Recognizing the interplay of social factors such as race/ethnicity, gender identity, sexual orientation, and socioeconomic background, intersectionality can help tailor public health interventions to allow more nuance and effectiveness for its public. As previously mentioned, a number of established theoretical

perspectives operate similarly like Critical Race Theory, which highlights the intersectionality of racial and other interconnected axes of inequity (Ford & Airhihenbuwa, 2010a). While this remains invaluable for examining racial disparities, CPH broadens the scope of including and considering multiple axes of marginalization, such as sexuality, gender, and socioeconomic status. The Social Determinants of Health emphasize that health outcomes are influenced by social, economic, and environmental factors and not just individual behavior or genetics (Marmot, 2005). While Social Determinants[10] offer a top-down perspective looking at systemic factors contributing to health, CPH complements this by emphasizing grassroots bottom-up approaches like local knowledge and corporeal learning, which are rooted in community experiences. CBPR[11] is primarily a methodological approach that involves communities in all aspects of the research process and challenges a top-down approach to understanding community needs and developing and implementing public health interventions (Minkler et al., 2003). However, CPH advances a broader paradigm that incorporates community participation while also emphasizing corporeal learning and challenging traditional health norms. CBPR is a methodological approach that can be employed and fits within the CPH paradigm. Lastly, the Ecosocial Theory of Disease Distribution examines how health inequalities become biologically embedded over time or how social factors are literally incorporated into one's biology to affect health (Krieger, 2014). Both aim to be inclusive of historically disadvantaged groups and consider the role of the social environment in shaping health, but CPH focuses on the agency and narratives of marginalized individuals in resisting public health norms and actively recognizes the expertise of communities rooted in lived experience. These aspects underscore CPH's distinct and critical contributions to enhancing public health dialogue and practice.

With CPH serving as a catalyst for moral and cultural transformation, behaviors and lifestyles that are typically viewed through a normative lens would also be recontextualized, potentially diminishing health disparities engendered by societal stigmas. A more profound change might be observed in power dynamics. By decentralizing health discourse and narratives, CPH challenges the dominance of mainstream social institutions and advocates for a more democratic dissemination of health information whereby counterpublic voices could also be considered "authoritative." However, this presents a fundamental challenge if evidence-based research fails to situate itself in CPH, or if certain claims or assertions decidedly refute what is already known to be factually accurate. Consequently, there is a risk of generating and spreading misinformation. Thus, one concern is the potential clash between CPH-driven campaigns and established health narratives, which may cause public confusion. There is also a risk of misinformation if CPH narratives deviate from evidence-based standards, such as giving

[10] Braveman and Gottlieb (2014) have noted that the term *social determinants* "often evokes factors such as health-related features of neighborhoods (e.g., walkability, recreational areas, and accessibility of healthful foods), which can influence health-related behaviors."

[11] Israel and colleagues (1998) have previously described *community-based research* in public health as "a collaborative approach to research that equitably involves, for example, community members, organizational representatives, and researchers in all aspects of the research process" (p. 177).

undue emphasis to small numbers of one-off anecdotes over robust data. A CPH perspective aims to reframe or reinterpret existing evidence through a lens that prioritizes counterpublic voices and experiences and provides context, meaning, and nuance to the interpretation of clinical data. Traditional health institutions might view CPH with skepticism and see it as a disruptive force rather than a means to enhance public health through an incorporation of ethical considerations and evidential claims. CPH invites the field to not only ask 'What is the evidence?' but also 'Whose voices are represented in this evidence, and who benefits from it?' This critical approach promises more comprehensive and inclusive advancement of health knowledge and practices, aligning public health more closely with equity and social justice.

Yet again, CPH might also pose challenges stemming from its approach to complexity and nuance. As it becomes mainstream, the risk of simplifying CPH of its multifaceted ethos could potentially sideline its goal for transformation. For example, a grassroots CPH initiative might sacrifice some of its original community-centric touchpoints when scaled up to facilitate its widespread implementation. The institutionalization of any movement could come with compromises that could temper its original objectives. Lastly, the risk of co-optation by the mainstream remains. As CPH gains traction, existing power structures might adopt its “language and methods” superficially, without genuine alignment. This could lead to a scenario where government or corporate entities could employ CPH terminology for marketing but do so without genuine commitment to CPH principles and actually reinforce existing inequalities.

Addressing the risk of oversimplifying the 'counter' aspect in CPH, Asen acknowledges that the exploration of people, places, and topics remains crucial for critical analysis in public health despite potential reductions in their complexity (2000). These elements provide valuable insights that should not be overlooked. A prospective direction for research then involves developing a counterpublic theory-based public health praxis that prioritizes discursive engagement within marginalized groups and between these groups and mainstream public health (Asen, 2000). This approach calls for a dual focus: understanding how marginalized communities internally construct their narratives and identities and examining their interactions with and responses to prevailing public health discourses. As social dynamics, digital landscapes, and meanings of health continue to evolve, it is imperative for researchers to stay attuned to the discourse and material realities of health. This means being cognizant of the shifting interplay between publics and counterpublics and its implications for public health.

Future study and research

In a recent publication, Storer and colleagues (2024) provide a compelling reference to an example of CPH in action and illustrate how marginalized communities, specifically gay and bisexual men, navigated the Monkeypox outbreak in 2022 by synthesizing formal health information with their lived experiences. Their study reinforces and extends the themes discussed in this review, particularly highlighting the necessity for public health strategies to be adaptable and deeply informed by the communities they aim to serve. The participants' approach to managing Monkeypox—leveraging both communal knowledge and individual research—exemplifies the core tenets of CPH by centering how affected communities adapt

official health guidelines to better suit their real-world contexts and needs. The relational management of health risks and the comparative framework drawn from experiences with other health crises like HIV and COVID-19 as described in this review further underscore the nuanced ways in which public health knowledge is reconfigured. These insights are invaluable for refining public health strategies to ensure they are genuinely inclusive and responsive.

On the technological front, CPH research studies have recognized the power of digital tools and the Internet. This trend highlights the increasing relevance of digital spaces in public health research, especially in understanding health behaviors and (counter)discourses in the digital era. Additionally, artificial intelligence-powered companions and chatbots represent emerging tools that can enhance user engagement by providing personalized interactions and support, thus extending the reach and impact of health interventions. The incorporation of online-based methodologies in these studies underscores the field's adaptability and commitment to exploring health issues among counterpublic communities in contemporary, digitally mediated contexts. Online spaces such as social media channels and social networking applications can serve as generative and emergent discursive spaces that create the potential for counterdiscourses to emerge. With the capacity to amplify messages and collect data that serve the community's goals or explore a community's unique context of use (e.g., physical devices and mobile applications), technology can enhance CPH's reach for a more diverse and inclusive audience compared to a traditional offline context.

From a research methodology perspective, projects grounded in CPH tended to be be multi-method in design, spanning various qualitative methods (not to be confused with mixed methods). The CPH literature is also characterized by a rich assortment of analytical methods. This variety not only reflects the interdisciplinary nature of public health research but also underscores the field's commitment to deeply understand health issues from multiple angles and realities. The choice of sampling methods across these studies highlights the adaptability and resourcefulness of researchers, ensuring that their methodologies align closely with the respective needs and contexts of their participants. This diversity in sampling approaches underscores the commitment of CPH to inclusivity and depth in understanding various public health phenomena. To centralize the community's involvement and collaboration in research, a CPH praxis also promotes the use of participatory research designs such as CBPR, participatory action research, or at least community-engaged research (Israel et al., 1998; Minkler et al., 2003; Rhodes et al., 2018). Further research should also explore the integration of quantitative research methods and analysis in light of the predominance of qualitative methods in the literature. A potential approach would be to adopt a mixed-methods research design that range across various typologies (Creswell, 2009) and determine the primacy of and sequence for collecting quantitative or qualitative data from the conception of the research question and aims. For example, one can leverage the present findings of a qualitative research project to help develop or inform a quantitative method (Schoonenboom & Johnson, 2017). Given its theoretical grounding, CPH would also naturally lend itself to a *transformative design* where critical theory shapes the interaction, priority, timing and mixing of the qualitative and quantitative strands (Creswell, 2009; Schoonenboom & Johnson, 2017).

One gap in the CPH literature that is left unaddressed is the question of alternate counterpublics such as those that fall under scientific and defensive counterpublics (e.g., anti-vaxxers (Bradshaw, 2022) or climate change deniers (S. Fraser, 2015)). Given their non-subaltern or hegemonic status in society and potential aim for maintaining power, their counter-nature may only be confined to an opposition to mainstream ideology without inherently embodying the other characteristics of CPH, as described by the characteristics that emerged from this narrative review. Such groups often occupy a complex space within societal power dynamics by generally challenging mainstream ideologies yet not always aligning with the voices of marginalized populations. As CPH is currently conceptualized, the question of whether these alternate counterpublics are necessarily precluded from being included and recognized in CPH solely on the basis of their opposing ideological stance remains. Addressing this complexity will be crucial for advancing CPH research. Doing so will expand our understanding of counterpublics by critically defining what constitutes a counterpublic within the framework of CPH. It will be essential for researchers to articulate how these groups are oppositional to mainstream publics and to delineate how their counter-status influences conventional public health norms. This nuanced inquiry will not only sharpen the theoretical grounding of CPH but also ensure that its application remains relevant and grounded in a conscientious evaluation of all voices that diverge from dominant health narratives. Appendix B proposes a potential method adapted from Holm's (2019) research on online counterpublics.

Conclusion

In synthesizing the diverse and growing body of literature on CPH, this review underscores the transformative potential of integrating CPH principles into mainstream public health discourse. By actively centering the narratives and lived experiences of marginalized populations, valuing local knowledge and care practices, emphasizing corporeal learning and embodied practices, and resisting the normalizing effects of traditional public health paradigms, CPH provides a comprehensive and inclusive framework that challenges conventional health norms. As Race suggests, the concept of CPH can be used to describe any public health work that discovers the necessity of challenging hegemonic ideas of average personhood and creating new collective contexts for airing otherwise stigmatized practices (Hoppe, 2010). Moving forward, the field must ensure that health policies and interventions are not only inclusive but also responsive to the diverse needs and contexts of all community members. By embracing the principles of CPH, public health can advance towards a more equitable, ethical, and effective practice that genuinely reflects and serves the complexity of human experiences. This path promises a future where public health is not just a field of study and practice but a dynamic and participatory endeavor that embodies social justice and equity at its core.

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Paper 2 – Exploring harm reduction practices in sexualized drug use among sexual and gender diverse people in California

Sexualized drug use (SDU), the use of recreational drugs to facilitate sexual activity, is a contributor to sexually-transmitted and blood-borne infection diagnoses like HIV predominantly among men who have sex with men. Specific SDU like 'chemsex' or 'party and play' have increasingly been documented to be associated with sexual risk behaviors like nonsystematic use of condoms and negative physiological and mental health outcomes. However, such evidence tends to rely on the collection of adverse individual health outcomes. This study explores how sexual and gender diverse (SGD) people practice STI-prevention and drug use harm reduction strategies (i.e., practices that minimize negative health and social impacts associated with SDU activities that confer risk) within sexual networks. It. A purposive sample of adult SGD people residing in California who report having engaged in recent SDU were recruited through online mobile hookup applications/websites and snowball sampling (n=18). In-depth interviews were conducted using a semi-structured interview guide, and transcripts were analyzed using a modified grounded theory approach. The average participant age was 42 years ± 11 years. All but one identified as cisgender male, and nearly two-thirds identified as gay. Over half (56%) disclosed living with HIV while others as HIV negative. Results suggest a two-step harm reduction approach for both HIV/STI prevention and drug use: 1) digital screening and 2) in-person assessment. Participants described evidence-based practices, including biomedical HIV prevention (pre-exposure prophylaxis and antiretroviral therapy) and less commonly condom use. Strategies practiced online include discerning profile information and visually inspecting the body as risk for STI and substance use disorder. Participants recognized their body's ability to withstand drug effects and being able to plan aftercare or recovery. Findings practically inform more nuanced SDU interventions at the individual, community, and policy level that not only address overall health and sexual wellbeing but also mitigate substance-related harms.

Keywords (7): Human immunodeficiency virus (HIV), sexually transmitted infections (STIs), sexualized drug use, sexual and gender minority, harm reduction, counterpublic health, chemsex

Word count: 301

Background

Sexualized drug use (SDU) remains a potential contributor to sexually transmitted and blood-borne infection (STBBI) diagnosis, predominantly among gay and bisexual men (GBM) and other men who have sex with men (MSM). One meta-analysis of primary studies examined the associations between SDU and STI and blood-borne infection in this population with defined temporal proximity between SDU exposure and diagnoses (i.e., SDU assessed either *during the period of diagnoses* or *up to 12 months prior to diagnoses*), and found positive associations between them with pooled crude and adjusted odds ratios approximately ranging from 2.00-9.50 for bacterial STIs, HIV, or hepatitis C (Guerra et al., 2020). Associations between SDU and bacterial STIs or hepatitis C remained after adjustment for unprotected sexual intercourse, suggesting that SDU itself is a partial behavioral cause of bacterial STIs and HCV or even a proxy for other risk factors[12] (Guerra et al., 2020). As for HIV, the association between SDU and HIV diagnosis was no longer significant in their meta-analysis after adjustment (Guerra et al., 2020). Recent evidence highlights the need to explore more nuanced approaches to addressing health outcomes, including relevant health behaviors with its associated risks, in the SDU context.

Current SDU research is evolving in response to developments in HIV biomedical prevention like pre-exposure prophylaxis (PrEP) and undetectable viral load and their harm reduction role in SDU (Frederick & Perrone, 2014; Hammoud et al., 2018, 2019; Hibbert et al., 2019; Souleymanov, 2018). However, this has been predominantly with GBM and other MSM. Such prevention strategies like daily oral PrEP for HIV-negative people and undetectable viral load (also known as treatment-as-prevention) for people living with HIV both confer practical benefits for HIV protection that condoms alone are unable to provide, including for GBM who "party and play" or engage in "chemsex," which are a specific subset in the SDU umbrella (Hammoud et al., 2019). Chemsex is considered the use of drugs like crystal meth and gamma-hydroxybutyrate (GHB) to enhance the physical sensations of sex mostly among MSM (Jackson & Ross, 2021). Research evidence across the U.S., Europe, and Canada on the effect of chemsex behavior and drug use on PrEP adherence in particular remains limited and even conflicting as to whether chemsex hinders PrEP use or adherence (O'Halloran et al., 2019). Antiretrovirals like PrEP and antiretroviral therapy (ART) to reach an undetectable viral load still have the potential to interrupt the association or pathway between crystal methamphetamine use and HIV infection (Hammoud et al., 2019). Crystal meth is just one chemsex drug of choice and under the wider SDU umbrella. Other *psychoactive* chemsex drugs including GHB, alkyl nitrites (poppers), cocaine, or ketamine may confer different health impacts, while alcohol, cannabis, and other *psychotropic* substances usually do not fall under chemsex despite their documented

[12] Guerra et al. (2020) "explored the impact of adjustment of one of the most likely mediators, unprotected anal intercourse (UAI), through a sensitivity analysis, which resulted in a reduction of the OR from 2.17 (95%CI 1.51, 3.14) to 1.57 (95%CI 1.32, 1.86), suggesting that UAI mediates some—though not all—of the association between SDU and STBBIs, and that other mediating factors should be explored in future studies" (p. 12).

use in the SDU context (Malandain & Thibaut, 2023). These mixed findings and what is known so far suggest that the social arrangement of practices, environment, and contexts in which these STI prevention strategies are enacted should not be understated or overlooked in SDU research.

Research on SDU among GBM in a variety of disciplines and methodologies have largely focused on individual psychosocial and health-related outcomes (Bourne et al., 2018). The standardized collection of individual-level data *without* a fuller perspective of lived experiences and desires and social networks will only continue to paint an incomplete picture, overly focusing on biopsychological pathology (Race et al., 2016). An example of this research approach is how party and play (PNP) has been constituted as a syndemic: "In this [syndemic] conceptualization, mental health, drug use, HIV, as well as other STIs, and violence are envisioned as health challenges that are overlapping and synergistic" (Halkitis & Singer, 2018). While this framework captures the psychosocial vulnerabilities of GBM, a consensus has yet to be reached as to the most effective combination of interventions in diverse SDU scenarios (Knight, 2018). More qualitative research is needed to explore the social-sexual and cultural contexts and validate their importance in SDU interventions (Patten et al., 2020; *Rapid Response Service*, 2019). This syndemic conceptualization and media and political portrayal of SDU excludes and denies any possibility of SDU as a rational or socially acceptable activity. Furthermore, public health generally lacks a critical perspective in dissecting the complexities of SDU, thereby warranting further investigation beyond readily accepted associations between behavior and health outcomes. This individualistic approach and deficit-based paradigm also place the moralistic, ethical onus on the individual to alter their behavior for the sake of normative public health, which in and of itself is problematic (Knight, 2018).

News media has depicted chemsex as "ubiquitous, always risky, and always out of control," despite research suggesting that not all chemsex is problematic when GBM who PNP are able to *carefully* manage their drug use and experience *little* harm or sexual ill-health (Bourne et al., 2018). Discourse of sexual responsibility centering the AIDS crisis in the Global North and its resulting overlap with HIV prevention and LGBTQ community health contributed to framing problematic chemsex as an irresponsible reaction to an individual's own problems rather than those produced and perpetuated by society (Drysdale, 2021; Møller & Hakim, 2021). The intentional use of terms like *misuse* or *disproportionate use* not only problematizes *any substance use regardless of level and frequency*, but the normalized citing of the correlation between illicit drug use and HIV risk during sex also disregards harm reduction and self-care practices that often operate in the SDU context (Pienaar et al., 2018, p. 192). As a result, the intersection of stigmatizing queer identity and criminalizing drug use behavior continue to worsen overall health outcomes in the long-term (Brooks-Gordon & Ebbitt, 2021; Platteau et al., 2019). How might one then interrogate and critique the assumption that everyone encompassed within a given population or community reasonably accepts and abides by the dominant discourse that constitutes mainstream public health? More specifically, how can SDU be reconceptualized as an assemblage of variable, contingent, and context-specific practices and a site of pleasure, experimentation, and social bonding? To bridge this critique, it is important to integrate frameworks that allow for a more inclusive understanding of substance

use and sexual activity within the LGBTQ community. Harm reduction offers such a framework, which emphasizes personal agency and the capacity for self-regulation, even within "high-risk" activities. Thus, harm reduction emerges as a key framework that validates diverse experiences and fosters a more nuanced understanding of health promotion in this context.

For the purpose of this study, 'harm reduction' refers to the *policies, programs, and practices aimed at minimizing negative health, social, and legal impacts* associated with drug use, sexual behavior, and other activities that confer risk (Harm Reduction International, n.d.). This definition recognizes the realities of various behaviors and seeks to reduce their harmful effects rather than ignore or condemn them. The significance of harm reduction lies in its inclusive, non-judgmental approach that respects individuals' choices and autonomy (National Harm Reduction Coalition, 2024). It emphasizes safety, health, and rights, particularly in communities where traditional approaches may not be effective or accepted. The current investigation into harm reduction addresses a gap in the public's understanding of how sexual and gender diverse people (SGD) individuals actively engage in risk negotiation and health promotion within the context of SDU (National Institute on Drug Abuse, 2022). By identifying these strategies, the study not only contributes to a more nuanced understanding of harm reduction but also informs more tailored and effective public health interventions that respect and acknowledge the diverse experiences and needs of SGD people. As such, this paper describes how SGD people who engage in SDU employ HIV/STI prevention and drug use risk reduction strategies. It explores the nuances of how they navigate and articulate harm reduction strategies within their sexual networks to balance risk mitigation with pleasure and bonding.

Conceptual Framework

To address the objective of this study, I employ a combination of critical frameworks that affords a more nuanced analysis of exploring harm reduction among dynamic actors in volatile environments. My conceptual framework (Appendix C) comprises the following components: counterpublic health or CPH (epistemological stance), actor-network theory or ANT (ontological approach), the risk environment, and drug use contexts. For this study, I maintained a CPH perspective, one that centers marginalized populations whose knowledge and norms challenge hegemonic public health (Bryant et al., 2019; Race, 2009, 2017). I relied on ANT as a methodology to ground my ontological approach. I8/13/2024 10:19:00 PMn this case, SDU is defined as an actor-network theorizing how various human (SGD people engaging in SDU, sexual partners, and public health and health professionals) and non-human actors (how recreational drugs interact with pathogens or how communication technologies influence harm reduction knowledge, etc.) coalesce together within a materialist-based network[13]. The *risk*

[13] A *materialist-based network* refers to a theoretical construct in actor-network theory that emphasizes the tangible and physical components of a network, alongside human actors. It accounts for the active role of material

environment framework overall contains and frames the overall system, considering the social, political, economic, and physical spaces with the influences of micro/macro environments (Rhodes, 2002). Lastly, SDU lends itself to the analysis that Duff (2007) calls for in contextualizing illicit substance use in a given SDU event. The following subsections describe and justify the integration of these theoretical components.

Counterpublic Health as critical epistemology

According to Warner (2002), 'publics' refer to groups of individuals who are collectively addressed and conceptualized by modern states and institutions. These entities create 'publics' through discourses and policies that aim to encapsulate a unified collective despite differences within these groups. Public health forms one such 'public' by addressing populations with broad, generalized health strategies and messages for maximum benefit. In contrast, 'counterpublics' emerge as distinct groups who exist parallel to or outside these mainstream 'publics' often formed by marginalized groups who find that the dominant narratives and policies do not represent or serve their specific needs, desires, and experiences (Warner, 2002). Thus, 'counterpublics' create their own spaces and discourses to assert their identities, needs, and perspectives, often challenging the assumptions and norms of the dominant 'publics.'

In public health, the concept of a 'public' often denotes a given general population or significant segment comprising a majority that is designed to improve and promote health and wellbeing on a large scale. However, the conceptual challenge of defining the public can be drawn from many public health meanings and its multiple ideas and ideologies (Coggon, 2022), indicating that this broad 'public' may not always encompass the unique challenges and perspectives of minority subgroups within the general population. This complexity underscores how public health initiatives and communications, while typically designed with this broad 'public' in mind, may overlook the nuanced needs and desires of diverse populations. 'Counterpublics' form in response to the gaps and limitations in these mainstream public health narratives and represent the voices and experiences of those who experience marginalization from broader strategies. They generate their own discourses and practices that more accurately reflect their lived realities, thereby challenging the mainstream public health's one-size-fits-all approach. This dynamic raises an important question: who is excluded or marginalized from this 'public' in a hegemonic society, or who otherwise constitutes the 'counterpublic'?

SGD (or queer henceforth) people make up one of these health counterpublics. Queer people are among the socially subordinated whose health outcomes are disproportionately worse in health care and public health settings. Derived from Michael Warner's *Public and*

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objects (e.g., drugs, technologies, and medical interventions) in shaping human behaviors, interactions, and social structures. In the context of public health, a materialist-based network would examine how these material entities interact with human actors to influence health practices and outcomes.

Counterpublics (Warner, 2002) and initially coined by Kane Race (Hoppe, 2010), I applied CPH perspective within SDU research. CPH fundamentally reveals the negative impact of mainstream ideological investments on the health and life of marginalized groups like queer people, sex workers, and people who use drugs, critiques moralized notions of the *public*, and enables us to think about how such notions affect this work (Hoppe, 2010). Aligning with harm reduction, CPH challenges traditional public health's focus on normativity (e.g., abstinence) and advocates for inclusive, embodied practices that resonate with the realities of marginalized communities and value their local knowledge (Mangosing, forthcoming). In the study context, CPH enriches our understanding of harm reduction in SDU among SGD individuals, framing these practices as health strategies intertwined with resistance against normative health discourses (e.g., assumptions for a risk-avoidant subject). This perspective is significant in unraveling traditional public health's assumption that people are rational decision-making subjects and that their subsequent health behaviors can be influenced from a range of standard strategies. These strategies can include but are not limited to individual-level health education and promotion, evidence-based clinical guidelines and recommendations, or the enforcement of health policies and laws. These approaches have in common the assumption that effectively everyone in their purview, their *publics*, reasonably accept and abide by the dominant discourse that constitutes mainstream public health. Thus, the consideration of queer theory as an overarching lens is compelling, especially when considering the concept of counterpublics and their discourse and action of resistance against the norms of dominant publics.

Queer theory emerged in response to the cultural, theoretical, and political discourses of lesbian and gay identities in the early 1990s, posing questions about how human phenomenon is defined as normative (Argüello, 2016; Grey et al., 2023). While queer theory interrogates multiple social facets, it centralizes sex/sexuality within modern institutions, social systems, and discourses with its primary critical object being the normative, a positionality that challenges the idea and production of the privileged norm (Argüello, 2016). For this study, queer theory allows for the exploration of harm reduction as a challenge to heteronormative health standards and positions these strategies as political and identity-affirming actions. A clear example of this is public health's earlier response to the AIDS epidemic, which highlights how the nation state has historically disciplined communities deemed at risk for HIV/STIs like GBM and other MSM, demonizing condomless sex – a practice that understandably affords a natural, desirable pleasure. Such a social system values binaristic notions of health (healthy vs. unhealthy) and the presumed cisgender and heterosexual subject or "public" (Grey et al., 2023). This critical inquiry leads to the argument for utilizing CPH in SDU research, centering and acknowledging the queer community's health needs and aspirations whose knowledge and norms of embodied substance use and sexual practices challenge these normative principles in public health frameworks (Bryant et al., 2019; Race, 2009, 2017). The societal conduct through which acceptable sexual expression is constructed and enforced continues to favor the heterosexual by condoning their SDU as evidenced by the dearth of research, media coverage, and legal control directed to them compared to their queer counterparts. I therefore consulted queer theory to unravel the dynamic practices and sites of pleasure and experimentation that SGD people employ in SDU to resist control within a compulsorily heteronormative society.

Actor Network Theory as ontological approach

Reality itself is "multiple," and this notion of reality creates the implication of options among various versions of an object (Mol, 1999). To then derive a fuller milieu of SDU, I leveraged ANT to empirically account for the potentiating effects of objects implicated in SDU like drugs, whether illicitly and recreationally consumed or medically taken as prescribed. Actors of a given phenomenon – human and nonhuman – are consequently not fixed objects, but rather dynamic and unstable in how they assemble within a network and operate with each other in their specific contexts and practices can determine the resulting outcome or reality. Thus, it becomes apparent that one cannot just study non-human actors' innate or technical properties (e.g., drugs, viruses, communication technologies, medications, etc.) or human characteristics (e.g., health outcomes, sociodemographics, practices, etc.). In the context of ANT, "the notion of choice presupposes an actor who actively chooses, while potential actors may be inextricably linked up with how they are enacted" (Mol, 1999). Race et al. (2016) allude to this analytical approach further in the context of the field of alcohol and other drugs: drug action and effects are produced by the relationship among actors, contexts, and practices and can be expressed or changed with their convergence with multiple phenomena including "informational environments, administration techniques, devices and technologies, social and affective climates, law enforcement practices, clinical and public health arrangements, particular contexts and locations, and individual bodies, among other variables" (p. 44).

To reimagine public health as a sociomaterial assemblage[14] rather than one of fixed passive objects, I relied on ANT as a methodological apparatus to study SDU empirically. ANT is generally known as a sociology of science and a methodology for understanding the world (Bilodeau & Potvin, 2018). Focusing on the relationships among and between both human- and non-human actors, ANT is a model that encompasses and examines the network of connections that either support or restrain action (Bilodeau & Potvin, 2018). In the context of public health, ANT achieves its full heuristic potential when it is applied to concrete situations (Bilodeau & Potvin, 2018). When looking at interventions focused on social determinants of health, this theoretical framing allows us to look at interventions as complex systems, which mobilize actors from various sectors and spheres at the community and government levels together with a variety of non-human entities (Bilodeau & Potvin, 2018). Given the complexity of SDU as sexual practice and possibly subculture for SGD people, applying ANT will be useful for generating a methodological model for studying SDU critically.

[14] A *sociomaterial assemblage*, derived from assemblage in social theory, refers to a dynamic grouping of heterogeneous elements, including human actors, material objects, ideas, and technologies, that collectively influence and produce a particular social phenomenon. It underscores the interdependence and co-constitution of the social and material worlds. In studying harm reduction or drug use contexts, a sociomaterial assemblage would focus on how these diverse elements converge to create unique patterns of behavior and risk management.

Risk Environment Framework and Drug Use Contexts

I also positioned Rhodes's (2002) *risk environment framework*, which is used in harm reduction public health, within an ANT approach in order to examine drug-related harm intersecting with health and vulnerability more generally (Rhodes, 2002). In this framework, the risk environment becomes a unit of analysis, helping us to overcome the limits of individualism by characterizing most HIV prevention interventions as well as others (Rhodes, 2002). Rather than ignoring the realities of people's lived experiences, the diverse environments through which SDU is enacted are also studied. In this way, harm reduction and HIV prevention can be viewed as social interventions, which are "subject to the relativity of risk and to variations in population behaviour in different social, cultural, economic, legal, policy, and political environments" (Rhodes, 2002, p. 87). The risk environment can be viewed as space (social, including digital, and physical) and two levels of influence – micro (i.e., social relations of risk and risk resistance as well as individual drug user practices) and macro (i.e., public health, drug, welfare, economic policies, and related public discourses) (Rhodes, 2002). By accounting for these varying environmental levels and social locations, the identification of how SDU is facilitated or hindered as interconnected with and unique to one's actor-network is realized.

The contexts in which SDU is practiced among SGD people must also be considered, especially as they pertain to harm reduction and interventions addressing substance abuse. It is widely accepted that social contexts are particularly significant in influencing patterns of illicit drug use (Duff, 2007). Research has documented how drug use differs from one social context to another, as well as the diverse meanings and values tied to such behaviors (Duff, 2007). Attention is paid not only to the constitutive dimensions of space, embodiment, and practice, but also to the local qualities of everyday practice (Duff, 2007). Practice refers to ways that drug use is experienced as an embodied activity with its own rituals and customs governed by local cultures and contextual norms, while space refers to the distinct spatial settings in which drug use takes place (Duff, 2007). Drug use then is reframed as a praxis performed by bodies in space despite the impact of economic, political, and cultural systems in that experience. This theorizing of contexts as an assemblage of space, embodiment, and practice draws from Deleuze and Guattari's concept of assemblage, which is the "qualitative relations of force, affect, and becoming, 'actualized' in connections and flows and composed on planes or territories" (Duff, 2007, p. 508). This mode of thinking then enabled me to theorize how distinct environments and contexts can still influence the heterogeneous network of connections between actors in a unique SDU process. In particular, it contextualizes an individual's placement and engagement with other key SDU actors within respective environments and potentially supports or restrain actions of harm reduction against real (or even perceived) HIV/STI and drug-related risks.

Methods

I interviewed a convenience sample of users of geospatial sexual networking applications (apps). I wrote my interview guide to investigate key areas deductively based on the literature and my own research interests including drug use and sexual activity, harm

reduction and health, partners, personal experience, and knowledge and perceptions. Methodologically, my goal was to rely on the open-ended semi-structured format of the interviews to allow interviewees to flexibly share their personal narratives while providing me with key information that could guide further public health research. I still tried to broadly capture areas I may have overlooked by allowing interviewees to add any additional commentary that this public health research would benefit from. Based on my overarching research objective, the areas of inquiry were guided by the conceptual framework of CPH, ANT, risk environment, and drugs use context and included the following: safer sex and drug use practices, sexual partners and interactions, harm reduction and health management, and knowledge and perceptions on SDU overall. This study has been approved by the University of California Berkeley Committee on Protection of Human Subjects.

Recruitment

The emergence of chemsex or the party and play scene in its current practice would not be possible without the proliferation and use of online dating sites and hook-up devices and applications (Race, 2015; Race et al., 2016). Three configurations of online hook-up culture of GBM could include the following: pre-specification of practices, desires, and HIV (status) identities; co-constructing sexual activities, desires, and fantasies through conversation; and extended play, long session, or group play, which is where the use of drugs often occurs (Race, 2015). I approached potential participants if their user profile contained any information suggesting preference or seeking SDU/PnP/chemsex or interested participants approached me through relevant social networking apps for sex-seeking as well as another website. I used my own personal sex-seeking experiences as a frame of reference for recruitment; to my knowledge, I was not aware of any other platform that passively condones illicit drug use. Sniffies is particularly marketed as anonymous-friendly for users who wish to remain discreet, while Grindr remains one of the most mainstream apps for seeking dates, hookups, or friends. Fetlife is a social networking platform for [15]BDSM. The affordances and limitations of blurring the boundaries of the researcher and researched is described at the end of the results section.

I approached potential participants on relevant online mobile hookup apps including Sniffies and Grindr, as well as Fetlife.com, when an interest in SDU, PNP, or chemsex was explicitly or implicitly indicated within their user profile. Given the importance of coded language emerging from these digital spaces to indicate desire for SDU and/or condomless sex (Patten et al., 2020), I have either posted study announcements or sent direct messages using a combination of text and emojis/emoticons to solicit interviewees for this project during unspecified times of the day, depending on the density of users who are online at any given time. As app users responded to the solicitation or direct message, I engaged in chat

[15] BDSM stands for bondage, discipline, sadism, masochism, fetishism refers to imbuing objects or practices the ability to confer sexual pleasure, and kink refers to more unconventional (*not vanilla*) sex practices and fantasies.

conversation with the user to determine whether they fit the stated subject criteria as a form of screening process. Once I deemed their preliminary eligibility to participate, I requested the user to switch to either email or phone/mobile messaging communication, depending on their preference. No content, media, or text generated from recruitment occurring within these apps or websites were used or collected for the project. Self-led recruitment efforts led me to interview 18 participants.

The participant must have met the following criteria: 18 years or older, ability to read/speak in English; reside in the U.S.; identify as a sexual minority (not heterosexual), gender minority (not cisgender), or both; and reports any current or recent history of any sexualized drug use, excluding alcohol only. Eligible participants were sent a 1-page Information Sheet describing key details of the study, so they can opt to participate privately through email or phone/mobile messaging. I also used snowball sampling to get referrals to other interested subjects in order to build rapport and address distrust they may hold against scientific research. Among all eligible subjects who confirmed interest, I followed up with them to schedule the interview. Interviewees were initially given the option of conducting it in person; however, subsequent COVID-19 updates and logistical challenges led me to rely on virtual interviews, allowing participants to opt for either video meeting or audio phone call.

It was important for me to note that the use of lay language and other colloquialisms familiar within the SGD community was necessary for the initial recruitment process in these virtual spaces. The use of emojis/emoticons for "party" and "party and play" was essential for these posts/messages, as the majority of online social networking apps that are used for seeking sex with other users prohibit the use of any language that is known to solicit any illegal activity involving the use of illicit substances/drugs. I had to bypass security surveillance and rules maintained by the mobile app's algorithm. For example: [1] "Looking for guys who [?]🤜🤛 [party] and would be interested in talking about their 🎉 [party and play] experiences for a research project I'm doing (in-person, phone/video interview). Anon/DL [down low] is OK. Please DM me for more info! Thanks in advance 😊". Because this type of solicitation stands out from what users are predominantly expecting from this online setting, this ensured it was not buried and lost among other users' usual sexual requests.

Interview Procedures

Participants were told that they have the option of refusing to answer any question during the interview and may terminate the interview at any time. Transcripts were generated by Rev.com and Otter.AI (Zoom Meeting). All identifiers were removed from written transcripts. I conducted semi-structured, open-ended interviews (approximately 60-90 minutes) using an

interview guide[16] to explore how interviewees practice and navigate HIV/STI prevention and harm reduction strategies within their own sexual networks (e.g., how they discuss and address HIV and other STI risks with their partners) and their physical, emotional, and social experiences engaging in SDU based on their preferences for specific substances/drugs, environments, and contexts. These interviews also explored the degree to which SDU is related to condomless sex and using online social networking apps. Interviews were audio-recorded and recordings were transcribed verbatim. All participants were offered $30 for compensation through an online cash transfer app of their choice at the close of the interview, which is a compensation method shown to potentially have the fewest barriers to paying research incentives and to participants receiving the money (Campbell et al., 2022).

Analysis

The in-depth interviews were analyzed by adopting a *modified* grounded theory approach (M-GTA) to determine emergent themes surrounding SDU-related sexual and substance use practices (Akiko, 2018). M-GTA is a method suitable for cases with process characteristics, such as when research subjects go through a process (Akiko, 2018). Given that ANT necessarily concerns multiple actors assembling with each other within a network, M-GTA allows for the theoretical construction of SDU as a phenomenon enacted within that network. M-GTA is therefore suitable for analyzing interview data and focusing on organizing substantive theory for practical utilization (Akiko, 2018). In line with M-GTA, I previously conducted a preliminary literature review[17] which further defined the research problem and informed guide development before conducting the interviews. Moreover, M-GTA also necessitated me to describe my theoretical stance on this research as described in the *Conceptual Framework*.

Differing from conventional grounded theory in terms of strict coding procedures, I used M-GTA to form *concepts* directly from interpretations of the data on an analysis worksheet. This approach roughly involved a two-stage data analytical procedure involving concept formation via *open coding* and thematic category formation via *selective coding* (Akiko, 2018). I recorded a concept name, its definitions, examples, and any theoretical notes were recorded on an analysis worksheet; each concept comprised a single analysis worksheet. I integrated certain concepts into a category, and when applicable, integrated certain categories into core-categories. Constant comparative method was also used to analyze and compare new data against previously collected data and to modify (core) categories as needed. I served as the only

[16] I first carried out eight pilot interviews, as these initial interviews were crucial for two main reasons: they informed the creation of a preliminary codebook and helped refine the semi-structured interview guide. This pilot phase not only tested the effectiveness of my questions but also ensured a robust and valid research design. This preparatory work contributed to the methodological rigor of my dissertation.

[17] Studies led by Dennermalm et al. (2021), Hibbert et al. (2019), Nation et al. (2018), and Souleymanov (2018) were instrumental in guiding the development of the interview guide through their supplementary appendices containing question items. Interview guides from these studies were reviewed and adapted for this project.

coder of transcripts. This study used “methodological restriction” with the following criteria for reaching theoretical saturation: scope of the research question, practicality of study time allotment, and resources available to support the study (Akiko, 2018).

Results

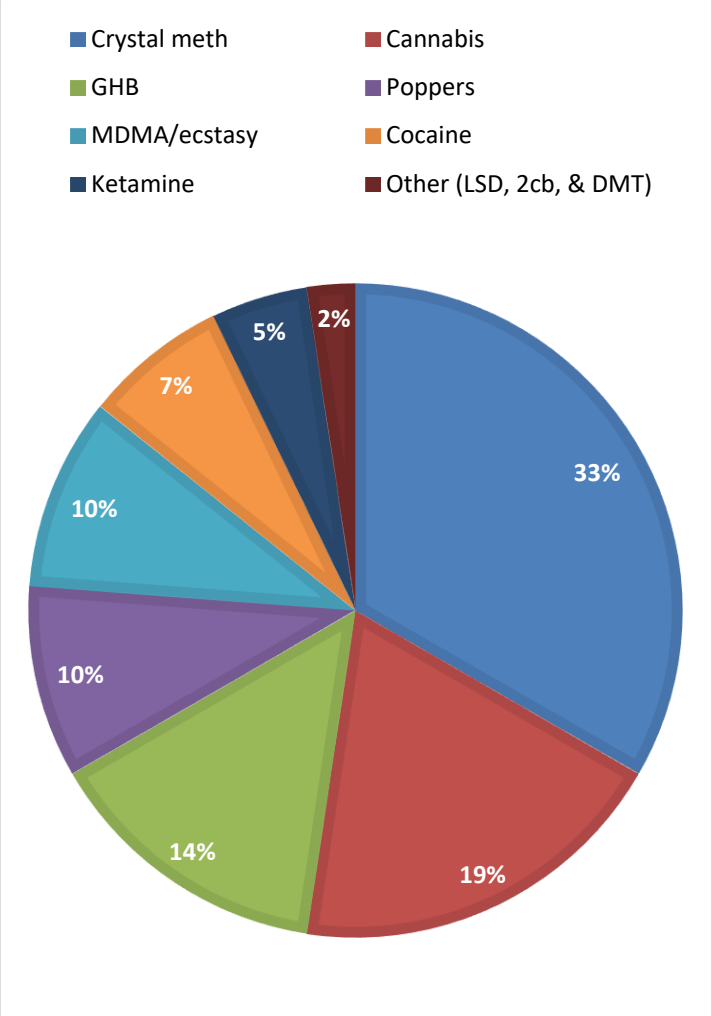
Table 3 summarizes sociodemographic characteristics, including age, gender, race, sexual orientation, education, and residence, as well as HIV status. The data collection of all in-depth interviews (n=18) spanned nine months, from April 2022-January 2023. The average age of the study sample was 42 years ± 11 years. All but one participant identified as cisgender male, and nearly two-thirds identified as gay and residing in northern California within the Bay Area. One participant identified as transgender female, others identified as queer, pansexual, or bisexual (29%), and only three resided in southern California in Orange and Los Angeles Counties. In terms of HIV status, a little over half (56%) disclosed living with HIV while others as HIV negative. The majority had some higher education or more, including college (33%), some college (33%), and graduate (16%), while the remainder have attained up to high school (16%). All but one participant was recruited through online channels, predominantly through the Sniffies app; one other participant was recruited through Fetlife.com, and the single non-online interviewee was recruited through snowball sampling or peer referral. All participants had access to the Internet for communication, whether through an online application or website. Figure 5 presents a breakdown of substances reported to be used in the context of SDU by each participant (n=42).

The notion of one’s morals or agency is salient throughout all the interviews. Participants' rejection of the assumption that they lack knowledge or understanding highlights a CPH perspective where individuals are seen as informed agents making conscious choices about their health needs and desires. All participants debunked the assumption that people who engage in SDU do so because they may lack the knowledge or understanding of the risks involved in using certain substances and performing certain sexual activities. Risk management techniques specific to drug use were also generally reported but varied, allowing for pleasure while mitigating negative drug side effects. Participants cited biomedical interventions like PrEP and ART when discussing harm reduction practices during SDU events. Among all participants who are HIV-negative, all but one was actively using PrEP. This was similar for those who are living with HIV where all but one was undetectable. This observation illustrates an active engagement with biomedical tools within the SDU context in ways that resist traditional one-size-fits-all approaches (e.g., concurrently having to use condoms, limit number of partners, and abstain from recreational drugs, etc.). While such tools may be considered mainstream today, their nuanced use by SGD individuals reflects a CPH principle of the agency within a community to engage with these interventions on their terms and for their specific needs, which can be diverse and not always adequately addressed by mainstream messages. The practice of using condoms or barrier methods, on the other hand, was minimal despite recognizing the indication for adhering to condom use, particularly as it pertained to penetrative sexual acts.

Table 3. Participant characteristics

	n = 18
Age	42 ± 12
Gender	
Male	17 (94%)
Transgender female	1 (6%)
Race	
Caucasian	9 (50%)
Latino(x)/Hispanic	6 (33%)
Asian/Pacific Islander	2 (11%)
Mixed	1 (6%)
Sexual Orientation	
Gay	12 (66%)
Queer	3 (17%)
Pansexual	2 (11%)
Bisexual	1 (6%)
Education	
College degree	6 (33%)
Some college	6 (33%)
Graduate degree	3 (16%)
High school/GED	3 (16%)
Marital status	
Single	15 (83%)
In a relationship	2 (11%)
Married	1 (6%)
HIV status	
Living with HIV	10 (56%)
Undetectable	*9 (90%)*
Unknown	*1 (10%)*
Negative	8 (44%)
On PrEP	*7 (87.5%)*
Not on PrEP	*1 (12.5%)*
Residence	
Northern CA	15 (83%)
Southern CA	3 (17%)

Figure 5. SDU substances used by participant preference (n=42)*



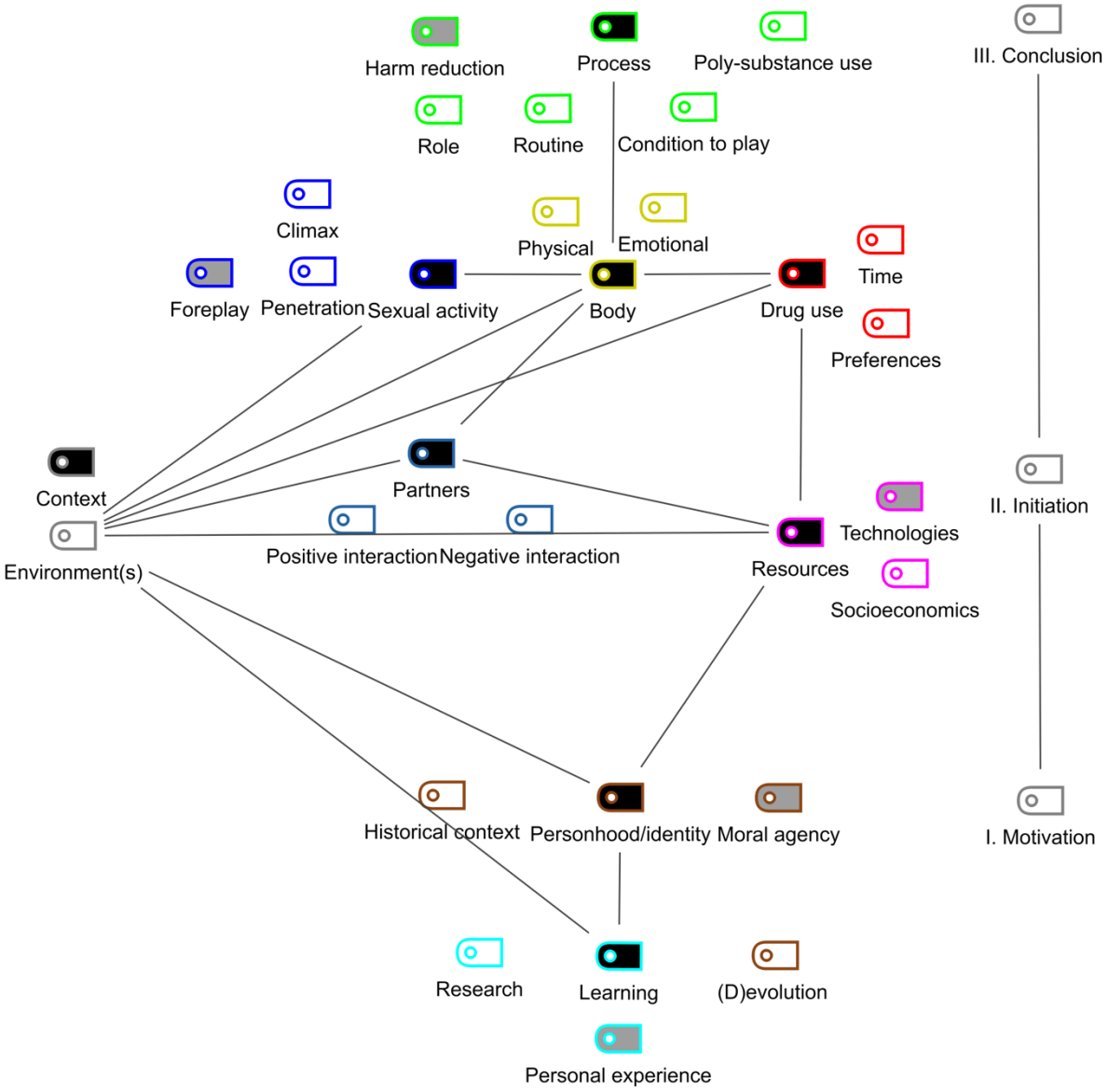
*Participants can report more than one drug, so *n* represents the total number of instances a specific substance has been used or preferred by an individual.

However, whether a participant used condoms or enacted other harm reduction practices was contingent on the assemblage of a number of key actors (human and non-human) and salient factors like the spectrum of moral agency that one holds and enacts before, during, or after an SDU event. These factors were considered within the risk environment framework, complementing an ANT-informed understanding of actor dynamics in the SDU context. ANT provided a conceptual guide for the relational dynamics among actors, while the risk environment framework offered a practical lens for understanding the environmental

influences in SDU contexts. Results indicate that SGD individuals' health practices could be shaped by alternative notions of health that CPH supports, which include local knowledges and care practices, corporeal and embodied learning, and the resistance of universalizing effects from social norms (Mangosing, forthcoming). Overall, these findings not only present concrete instances of harm reduction practices but also serve as expressions of the theoretical concepts underpinning the CPH framework. This integration of theory and data emphasizes the relevance and applicability of CPH in understanding the health practices of marginalized populations.

Figure 6 presents a diagram or network of nine relational core-categories and their subcategories that emerged from the analytical process afforded by a modified grounded theory approach. These categories reflect a two-step harm reduction framework: 1) initial digital screening including categories like 'partners' (e.g., interpersonal interactions) and 'resources' (e.g., technology), while 2) in-person assessment involve the 'body' in relation to 'drug use', and 'sexual activity'. For the focus of this paper, the core category of 'process' and specifically its subcategory 'harm reduction' overall generated insights into a two-step harm reduction approach. While not fixed in directionality, the SDU process as presented in the diagram of categories generated by collective participant accounts can be traced starting from the bottom-up with a broad sequence of stages for an SDU event (e.g., I. Motivation, II. Initiation, and III. Conclusion). Through a two-step framework of digital screening and in-person assessment, the study results of this paper solely outline and describe the types and utility of harm reduction practices addressing STI prevention and drug use the participants reported. To present these multiple strategies within the context of SDU among SGD people for practicality, they are delineated into two modes of practices: 1) those that are a part of one's existing SDU routine and 2) those that occur as needed or prompted. Strengths and limitations are then described in light of the findings from this qualitative study.

Figure 6. Diagram of relational core-categories, categories, and concepts*



*Nine core-categories (filled in black) emerged from the analysis of participant interviews with each having respective categories (filled in gray or white). Each category represents a concept grounded from salient topics that participants identified and detailed as a part of their SDU process whether explicitly or implicitly.

Step one: Digital Screening

Unique to communication and information exchange within the online space, step one or digital screening involves bordering the line between real or perceived harm reduction. One method that was generally cited was processing a potential partner's online user profile on the mobile application of their choosing. This entailed reading one's profile description for any mention of safer sex practices, reviewing the app's profile fields, which may include one's HIV/STI status, PrEP/ART status, last tested date, sexual activities of interest like specific

kinks/BDSM or preferred sexual role or position, and any coded language that conveys (dis)interest in specific SDU like chemsex-drugs including crystal meth and GHB versus cannabis and poppers. This is usually followed by an initial exchange of messages and proceeds, depending on one's current state of desire, to a meetup. Participants potentially adopted this through personal experience and socially from others in their network (a form of counterpublic health). Both on PrEP, *P02* and *P04* describe the role of reading a profile but with a caveat:

> *I just go by what they have on their profile, although that's not always that's not the safest, I know that. Because people can say whatever on those profiles; it's not something that they can verify. So, it really ultimately comes down to how well I'm taking my medication.* (P02, 25, Latinx gay male)

> *I have to trust somebody if they're on PrEP on their profile that they actually are depending on how the conversations going with someone I might be motivated to be like hey are you sure, or like How long have you been on PrEP that kind of thing where's. The doubt, but I want some details.* (P04, 39, white pansexual male)

Beyond screening, P04's engagement in PrEP at this stage also normalizes conversation around PrEP in this context. Some considered viewing and assessing one's profile pictures to determine whether it conforms to a perceived harm reduction preference. This mode of perceived harm reduction specifically involves a visual inspection of a potential partner's body, usually first through an online app and possibly again in person. These participants rationalized that one's appearance is used as a proxy for health and the potential for STI infection.

Some have also reported or implied being selective and limiting the number of partners they meet for SDU to reduce the risk of STIs. This seems to be influenced by the density of users within a given location radius from where the user is opening the online app at a given time, as there tends to be a higher concentration of users within city limits of the urban center. Depending on the app one uses, they may either see a visual representation of where other users are possibly located on the map or access a grid of user profiles that may or may not display their distance from the user's current location. Consequently, a higher number of users within one's proximity could signal an individual's potential partner count. For example, *P10* preferred having a neighborhood friend to hook up with while also acknowledging the potential for his partners not limiting their encounter frequency as much as him:

> *I would prefer to have one person that I hang out [with]. It's why I like hanging out always with the guy down the street, but he hangs out with a lot of people. But I don't hook up all that much. People, just based on my profile, they would think that I'm hooking up left and right. But other than my friend down the street, I probably hooked up with other [people] in the past month.* (P10, 44, Latino gay male)

Transition from step one to step two

Upon meeting a partner in person, step two or in-person assessment entailed practices for meeting a new partner for the first time or those who are regular partners. An initial action one may take is initiating a consequential conversation after communicating online to clarify claims that may be perceived to be inconsistent, questionable, or requiring more reassurance than that given through an online exchange. This approach usually already occurs within the physical space (the tangible environment in which the SDU occurs like one's home or a hotel room) as a form of situational safety and awareness, but this may still occur within the app where a mutual agreement could not be easily made if mutual preferences in sexual or drug use activity or certain conditions to engage each other like harm reduction expectations do not align explicitly with both individuals. P07 aptly describes up to three scenarios in a sequential order where one may be compelled to pause and intervene to reduce perceived harm:

> *I think there's basically three different stages. Some of this stuff they say right up front. Some of the things that are established in the beginning of the face-to-face interaction, and then occasionally, during the scene, just because perhaps the scene has started to go somewhere else, and it's either getting into boundaries they hadn't thought about.* (P07, 59, white gay male)

P03 conveys a combination of the first two stages, specifically when he is meeting a new potential partner for the first time and trying to confirm that potential partner's online app profile information like HIV/STI status, safer sex preferences, and last tested date:

> *It's usually touched on. If we're talking online, it's usually talked [about] then. Once the person comes over, then it's discussed with a little more detail. On such things where we both are with STDs and all that, and I tried to keep a good clean good line of communication open. I prefer not to discuss that online. I mean I touch on it, but I prefer to discuss it in person.* (P03, 59, white gay male)

Participants also accounted for and exchanged information in the digital space, both text and graphic, that are readily accessible to them on the online app they used to find new partners and communicate with them as a form of harm reduction. To establish partner compatibility, this entailed reviewing health-related or behavioral characteristics inputted within profile description fields as well as visually inspecting user photos displaying the body as a perceived proxy for health status and therefore a self-reported harm reduction method. *P05* makes it apparent that anything that visually signals ill-health would indicate an STI risk:

> *As far as the health of the person in front of you, sometimes it's really easy to see that they're just not well, and that would be an indication. Maybe don't hook up with them or do certain things just, because it's going to increase your potential of getting something, because you can just see it.* (P05, 30, white gay male)

This perception is also applicable to the participants themselves, ensuring that they do not appear as disheveled or that their home environment does not look untidy. However, this presumptive approach is countered with the recognition that one may look healthy externally when in fact they may not be. Indeed, step one is limited to interpreting a digital artifact (e.g., photo/image), one that is subject to editing, manipulated subject composition, inaccuracy due to not being up to date, or an image not owned or taken by the user themself. On the other hand, step two or a visual appraisal in person is treated as a means of confirmation for step one. Participants who maintained this approach expressed a common-sense knowledge that appearance or looks can be deceiving. This mindset was aptly pointed out by *P01*:

> Y*ou could be with someone who looks perfectly healthy, who looks like they behave, but it only takes one unprotected encounter to catch everything.* (P01, 32, Latino gay male)

Step two: In-person assessment

All participants indicated practicing some form of harm reduction around safer sex and drug use, spanning from what would be considered standard within public health to those that result from one's personal experience, both individually and together with other partners. The former set of public health practices focus on the prevention of HIV acquisition, which includes actively using PrEP or ART depending on one's HIV status. For example, *P02* describes how they maintain their PrEP use:

> *Only trust yourself when it comes to you know your medication. I have this app on my phone that alerts me, which actually I have turned off. The alerts [are off] because they're getting annoying, but it alerts me of when I need to take any medication, including my PrEP. It gives me like a timeframe like a time window. It'll alert me. When the midpoint of that time window [happens]...it gives me one last alert at the end of the window. And it's a daily thing...Take the pill, tap the green check, and it will be done for it until the next day. For some reason that just becomes difficult to actually follow through in doing, which is because I also carry my PrEP everywhere. I would say make sure you carry your medication with you.* (P02, 25, Latinx gay male)

Another predominant set of harm reduction approaches considered routine by participants include recognizing and knowing one's bodily limits when it comes to specific substances that are consumed for sex and being able to plan a form of aftercare or recovery post-SDU. This entails the self-driven ability to know which types of drugs are the least harmful to their body, know which routes of administration hold the lesser risk, and the consideration of which sexual acts that their body can tolerate without reaching harm. This also holds implications for being able to plan SDU around daily living tasks required for basic survival like maintaining a job for steady income; this approach reverts the individual to a pre-SDU state. Here, *P01* only uses cannabis and poppers (alkyl nitrites) because they are reasonably manageable, whereas P03 is claims to use crystal meth in a manner that works for him to achieve sex goals:

At least for me, you know it just feels like a safe zone. Something more controlled. (P01, 32, Latino gay male)

I'm very aware where I'm at high-wise. (P03, 59, white gay male)

Another way through which one recognizes their body's limits comes through planning before with adequate nutrition or breaks or rest periods with continued hydration during an instance of SDU, more so among more illicit psychoactive substances. This awareness is particularly involved in the process of redosing a drug to maintain a desirable threshold of effect. For example, *P02* checks in with his partner to ensure they remain conscious and alert on GHB:

When the effects of the G start to like either wear off; we're noticing that they're not really like hitting us. That's [when] we'll take a break, and then I'll check in and be like, "Hey like feel a dose, or I haven't done a dose. Do you want to like take a little bit more?" In which case, depending on what the other person says, I usually end up asking, because I know that I'm going to take some more. But also check in on how the other person is feeling about it. (P02, 25, Latinx gay male)

Establishing a structure to reinforce one's accountability to remain self-aware of their state of being and as well as considering designating certain days for SDU to accommodate life responsibilities were also notable strategies. This presents a departure from harm reduction to harm/risk management, which acknowledges an individual's active choice to engage in an activity such as SDU that knowingly brings about certain inevitable harms. For example, *P08* further encapsulates this approach by highlighting the consequence of losing one's job if SDU involving crystal meth inappropriately coincided during a scheduled work week:

Okay, but if you cannot anchor yourself into reality, if you don't have a place that you need to go back to this thing, it'll suck you down the drain. It'll consume you, and I have seen that to people, because I have this person...I told him, "We're not going to party if you're working tomorrow." (P08, 54, Asian gay male)

Assessing for hygiene (e.g., outward signs of experiencing homelessness) or cognitive dysfunction as a proxy for problematic drug use was also a perceived harm reduction mindset, particularly in person when a partner arrived in a physical state that did not meet expectations despite having had an online exchange where one can mask what would have been "red flags". Given the geographical context of urban spaces undergoing gentrification from which the majority of participants resided, the mention of homelessness as a state of being that one vigilantly looks out for is unsurprising but remains problematic. Both *P10* and *P05* reiterated this risk perception with the former equating physical appearance to actually having STIs whereas the latter conflates corporeal dishevelment with problematic drug use:

If they look sleazy and slimy, and they're covered in STIs, then I probably will be like, "I got to go walk my dog." (P10, 44, Latino gay male)

So, when someone does look like that, it's very clear that there's a habit of non-hygienic or an inconsistent routine as far as that's concerned, and to me at least, that would be a red flag or an indicator that things like a drug or something, like drugs really are the only thing that can fill that category there, but is more important, right? Getting high is the more important thing than brushing your teeth, which, okay, but I will never understand that on a full level, because I like my teeth to be clean. (P05, 30, white gay male)

Rarely, if at all, did most participants initiate condom use for anal or oral sex or take doxycycline post-exposure prophylaxis (Doxy-PEP) as an added form of biomedical STI prevention against chlamydia, gonorrhea, and syphilis. Rather, they used condoms when squarely requested by partners. All participants also reported engaging in routine HIV/STI testing or seeking treatment upon the identification of potential STI signs and symptoms or via a partner notification. *P06* conveys these methods collectively by sharing the following prevention message:

I think the things like [Doxy-PEP], PrEP, and people being willing to talk amongst their friends and even more openly that there is something that maybe keeps you from having to go sample and get a little shot in your butt. That can reduce the number of that, so the candor around sex that keeps the people who are around it educated. I think ease of testing is a big part of that prevention and reduction. (P06, 41, white gay male)

As a converse to not initiating condom use during SDU due to preference for condomless sex or being impartial in general, some participants leave it up to their partner as to whether it would be employed, particularly for anal sex. This approach was used either prior to SDU in the planning phase or during SDU and may be viewed as either fulfilling a social responsibility for meeting partner needs involved or ensuring that SDU progresses. For example, *P01* describes an as-needed framing for condom use that, leaning on the partner making the request:

I think some kind of condoms I use sometimes. I always let them decide that. Obviously, I'm always hoping for…Okay if you don't. Okay if you do. Then at that point, I know I'm putting myself at a certain risk just because I'm not fully prepping myself to like taking care of that. But then from there, definitely there's this condom use sometimes, and then I would choose to do so, or they would choose to do so, depending on the moment, but then definitely it's not…I wouldn't say it's a 50/50. (P01, 32, Latino gay male)

P02 and their friends further support obliging to a partner who is definitively requesting a condom to be used in order to bring about a sense of comfort and safety to continue:

I've been in situations, or my friends have been in situations where they're told that their partners [are] like, "No, I want to…Do you have a condom?" And so, they will have to find a condom, or find a way to get a condom and they oblige, because part of the whole thing being about enhancing pleasure means also making sure both or all folks involved are comfortable. (P02, 25, Latinx gay male)

Some participants required drug use equipment to consume substances that were prepared in either a smokable powder form for a pipe/bong or in a liquid form for a needle syringe. In this case, they recognized the need to use sterile and clean apparatus to prevent the exposure and transmission of blood-borne infections and to ensure not sharing them with other partners. For example, P12 not only does not allow partners to smoke crystal meth from the same pipe, but they also go as far to have alcohol wipes on hand to sanitize:

> *Generally, I don't allow others to smoke from the same pipe, especially if I don't know them. If I do, I try...I actually literally will carry, alcohol wipes on just so I can wipe down the surface of what I'm using, so that way there's no chance of it cross contaminating.* (P12, 31, white and Latino gay male)

This behavior of using clean drug paraphernalia yet potentially engaging in condomless sex shows participants' selectivity around what harm reduction strategies work for them and highlights a complex risk assessment, where sterilizing drug equipment is prioritized over condom use. Such assessments indicate that harm reduction is personalized to individual preferences and circumstances. Maintaining a desirable level of safety from risk was a concern for all participants, one in which pleasure from engaging in certain actions could be attained.

As a follow-up routine to STI screening, a few participants mentioned being aware about making sure to notify partners of a potential exposure if they test positive for an infection or being informed themselves by another partner of a potential exposure. *P07* approaches this in an evocative way, reflecting on how far testing has come and on personal responsibility:

> *So, on the counterpoint, I am being more careful afterwards. So, I'm checking for signs of STDs or something else, and if there's a problem, I'm notifying or touching base with people immediately versus the old days. It might be, you kind of wait until you get the test result back, so you don't have to embarrass yourself talking or communicating with that person. Now, it's like...I guess the harm reduction comes after the scene or interaction than during, and because that's happening faster, and more honestly right after, it's also affecting anybody else I'm getting together with.* (P07, 59, white gay male)

During SDU, the conversation around confirming a potential partner's online app profile information like HIV/STI status, safer sex preferences, and last tested date can also still be initiated as *P01* conveys regarding safer sex when it comes to using condoms, applying more lubricant, and ultimately changing an undesirable behavior in real time:

> *If I feel like they're uncomfortable, then I would ask them, [would] you want to use a condom? Would you prefer to use more lube, or do you not want to do that? Do you want me to just like suck your dick? Give options. Like, if it's on to reduce whatever fear or minimize overdoses, reduces whatever potential [to] reach any infection.* (P01, 32, Latino gay male)

The other partner(s) involved in the SDU can also motivate the participant to pause and check in if they sense that the individual is presenting anxiety or worry about their health like *P05*:

> *People have this really interesting tendency to either bring up something they don't want you to know, but they'll randomly bring it up to make sure that it's not a main topic of conversation. It'll usually be not necessarily out of the blue, but it won't really fit into the conversation that's happening and you can tell that that person's anxious about it, and if it's something like HIV or some other STD, and then if they kind bring it up more, you're like, okay, well to me, that's obviously [because] you're worried about it. So, either you just had it, or you know someone here that does, or you have it, and then that's kind of the deduction that I would make.* (P05, 30, white gay male)

In summary, participants cited multiple, diverse routine approaches to harm reduction as it pertains to both HIV/STI prevention and drug use effects. The use of biomedical intervention strategies like PrEP, ART, and even Doxy-PEP were largely considered among all participants, reflecting a clinical and evidence-based approach to harm reduction. Many regarded these strategies to be taking responsibility for one's health, possibly taking it further to the standpoint of only "trusting yourself" and assuming everyone is "positive." However, some participants relied on less protective methods, such as visual assessments of partners' appearance to judge health status. Another general approach called for the individual to be cognizant of their body's limitations, invest in preparatory and supplementary safeguards, and maintain responsibility to consciously plan SDU around critical periods of time like one's work schedule. This spectrum of strategies illustrates the varied and sometimes conflicting approaches to harm reduction within the SDU context.

Condom use was mostly considered as needed and usually dependent on a partner(s) involved. This finding is aligned with participants' preference for condomless sex or impartiality to condom use. Among most participants, routine STI screening was complemented with treatment when testing positive for an STI or being notified by a partner. Finally, the visual assessment of one's physical state and cleanliness consistently remained as serving as a perceived harm reduction measure. It was unclear whether this was rooted in personal experience, hearsay, or the media at large. Overall, findings illustrate a two-step process in harm reduction, starting with digital screening and culminating in diverse in-person practices.

Discussion

In this study, I explored how sexual and gender diverse users of online social networking platforms employ and navigate harm reduction practices in the context of HIV/STI prevention with sexual partners when engaging in SDU, highlighting the potential for a two-step approach. These practices were enacted during specific contexts depending on the individual's personal history, experiences, and motivations in SDU, the particular social and physical environmental contexts in which SDU takes place, conditions to engage in SDU set by partners, and their interfacing with the online platforms to seek SDU partners based on user profile description information and visual media. Study participants used a number of substances based on their

desired drug effects, comfort level and access, and overall risk. Thus, the emergence of this two-step harm reduction model suggests that the implementation of these practices is shaped by an assemblage of diverse human and non-human actors and other salient factors within the social and physical environment. Despite a more homogenous sample of SGD people (predominantly gay and cisgender male), this study elucidated the potential conditions in which harm reduction is either practiced or not within a SDU context. Overall, findings build upon the recent literature documenting harm reduction processes and health outcomes involved in SDU, particularly chemsex/PNP (Drysdale et al., 2021; Malandain & Thibaut, 2023; Platteau et al., 2019; Power, 2022; Strong et al., 2022), and support the integration of a CPH framework (Mangosing, forthcoming) to further nuance our understanding behind SDU-related practices.

In the first step of this harm reduction framework, the digital online space emerges as a key actor in mediating the progression of connecting an individual to potential partners and the likelihood of whether they mutually agree to meet up. Findings further supported the central role that hookup apps or websites play in how they approached negotiating harm reduction practices and expectations. Race (2015) previously described online hookup devices as an important component of an infrastructure that gay men popularized within urban environments to shape their sexual experience. Similar to this study, participants described their personal lived experience and how these media serve as an HIV prevention approach that "promotes acknowledgement of how drug practices and other objects and devices participate in the construction of sexual encounters: their pleasures, qualities, risks and potentialities" (Race, 2015, p. 253). The profiles constructed by app users served to facilitate and restrain the likelihood of meeting a sexual partner. However, certain practices they indicated to be harm reduction against HIV/STIs or problematic drug abuse highlighted a controversial tension in risk reduction mindsets between standard methods based on evidence and discriminatory measures based on perceptions. Such a tension may be amenable to a more nuanced and expanded view of what harm reduction can mean to individuals, perhaps like these two stages.

In either step of this two-step approach, I find that the potential for discrimination based on appearance or self-presentation online or in person poses a concern around stigmatization. Participants' reliance on visual cues for assessing risk may inadvertently perpetuate certain stereotypes or stigmas. However, at the same time, the emergence of this repertoire of harm reduction behaviors for SDU suggests the practice of a counterpublic health approach. While some participants noted that they were looking out for classical outward signs of an existing STI infection, the same individuals bordered on relying on past experiences and preexisting perceptions of what problematic drug use looks like to them as a litmus test for whether they should reject a potential partner. Although this method is problematic for detecting STIs, as it can lead to stigmatization, assessing outward appearance for signs of problematic drug use might be less contentious. Clear physical signs of injecting behavior, such as marks or abscesses, and indicators of poor coordination or neglect of self-care, are reasonable concerns for trying to protect one's wellbeing. This observation is not surprising given the geosocial environment in which participants resides, specifically urban spaces impacted by increasing rates of gentrification and homelessness. Reconciling one's personal experiences with facing socioeconomic difficulties and their resulting judgment of another's

situation should be approached with caution. Such judgments may align with dominant social norms around reductive and stigmatizing views on health, but they also indicate the participants' efforts to assert agency and protect their well-being in the absence of other supportive health frameworks. Because this assessment seems to serve as a perceived harm reduction practice, the definition and principles of harm reduction as a public health concept may not encompass the same connotations held by the participants in this study. The dual nature of these assessments – mirroring dominant norms on one hand and acting as personal strategies on the other – suggests a complex interplay between conformity and resistance. This misalignment calls for not only future research to examine complex notions and discourses of harm reduction in the context of SDU, HIV/STI prevention, and drug-related risk, but also for rethinking how one might tailor a harm reduction intervention around one's life circumstances.

Particularly for step one, the role of apps serving as a channel for sexual health resources is evident based on user interface and functionality. However, it is unclear as to which users are benefitting from their dissemination and promotion, particularly among those who do not actively engage such content. Such an issue should not be ignored, as it can facilitate the development of a habit of closing pop-up advertisements in the goal of trying to expedite the partner search. Another issue concerns the regulation of drug-related discourse that users who engage in SDU circulate and deploy in digital spaces. Presumably, apps generally institute an algorithmic framework for prohibiting and censoring the use of such language including both words and emojis that explicate any substance use but more so the illicit kind. Participants in this study clearly identify one online application as the most frequently used for sexual partners in the SDU context, but this self-selection could be a result of study recruitment from the same platform. The question then is whether a preference for using apps or websites with less sensitivity to prohibited language ought to be confronted with the call to increase their algorithmic restriction in accordance with the legal implications of unlawful behavior. Future public health efforts may consider how a person-centered design framework with a health equity lens could be leveraged to develop technologies[18] that benefit the user in finding social connection while still ensuring the safety of its users through collective harm reduction.

Participants identified harms to physical and emotional health were identified depending on the substances used for SDU contexts and related them to their community's perceptions of and attitudes toward SDU. This reinforces the potential variability of SDU more broadly, as chemsex-specific definitions remain linked to various physical, psychological, and social harms from both individual and societal lenses in the context of using drugs to enhance sexual performance or sexual pleasure, relaxation, and sexual gratification (Strong et al., 2022).

[18] As of July 2024, the Sniffies app has updated its optional user profile fields to include "My Comfort Levels" to indicate one's boundaries against certain drug use practices including "PnP" and "I carry..." to indicate whether one is in possession of harm reduction supplies like condoms, Naloxone, and drug test strips. The inclusion of these new profile fields support a more inclusive harm reduction environment. See more public online discussion on these Sniffies app updates here: https://www.reddit.com/r/Sniffies/comments/1dgr5c1/new_profile_fields/

The practices to address such effects that emerged from the study suggested three distinct types of risk – HIV/STI-, drug-, and sex-related – and how their corresponding harm reduction strategies can be deployed before, during, or after an SDU session, pointing to a dynamic continuum rather than a binary of problematic versus non-problematic drug use (Strong et al., 2022). Indeed, the two premises of 'not all substance use in sexual contexts is chemsex' and 'not all chemsex is problematic' have already been proposed elsewhere (Platteau et al., 2019). The former emerged as some participants deviated from what may be considered chemsex, which included using less potent drugs like cannabis, involving only one sexual partner, refraining from polydrug use, and not engaging in other bodily harmful behaviors. The latter was evidenced not only by the diverse SDU experiences they described by participants, but also by their "relationship" to SDU, spanning from positive to negative and casual to considerable. Findings therefore support the recognition of a skillset for minimizing unavoidable harms, including harm reduction approaches, establishing and maintaining boundaries, caring for oneself and for others, and an appreciation of sobriety in life and recreation (Platteau et al., 2019). Due to the polarization of beliefs and attitudes toward SDU driven by connotations associated with certain drugs and how they are administered, approaches must be proffered in such a way that mitigate as much risk as possible while maximizing health, including pleasure.

Strengths and limitations

The results outlined in this paper must be considered in light of its strengths and limitations. Of note, this study was conceptualized with an overlap of the researcher's membership in the community that the sample comprised and their relationship to the health practices at hand. Characterizations that were constructed around the participants' harm reduction practices in the context of HIV/STI prevention and drug use cannot be generalized to other members of the SGD population, including those who engage in SDU due to sampling strategies. The two-step approach that emerged here is novel and requires further validation of its effectiveness. Given the purposive sampling techniques utilized for this study and its inclusion and exclusion criteria, bias in participant responses should be considered with respect to the unique assemblage of SDU actor-networks, identification of salient factors and contexts, and environments that superimpose on the actions made and outcomes experienced by participants. For example, recruitment through specific online dating or hookup apps or websites likely confer a particular type(s) of users based on their needs and desires of those on the platform. The geospatial parameters through which participants were recruited were also constrained to the Bay Area and with a smaller number in Southern California, furthering the need to consider the intersection of (sub)urban living, local politics, and the cultural contexts in those communities. A single coder coded all transcripts, which prohibits inter-rater reliability and impacts the identification of themes that may surface with additional coders. My role as an insider-researcher could lead to role confusion, where my personal experiences might shape and guide interviews, emphasizing shared factors and potentially overlooking discrepant ones (Dwyer & Buckle, 2009). Additionally, participants might assume similarity with me and fail to fully explain their individual experiences, and my expressions of empathy and enthusiasm for the subject could have influenced them to align their responses with my perceived expectations rather than their genuine experiences (Dwyer & Buckle, 2009). However, I recorded and

assessed my personal bias throughout the development and implementation of this study and through a modified grounded approach for analysis.

Despite these limitations, the strengths of this study lie with its intimate investigation of a highly sensitive topic through in-depth interview[19], which was designed to elicit rich and direct information around their harm reduction practices in the SDU context. This was important for the production of preliminary yet pragmatic HIV/STI prevention and drug use strategies that can be further explored and developed into an actionable set of recommendations for public health and medical practitioners to consider when interfacing with clients or patients who are engaging in any range of SDU. Although increasing the sample size would have been desirable, the available data that were collected and analyzed proved to be sufficient to construct a grounded theory of SDU that effectively theorizes how harm reduction can be explicated with a two-step framework. Such a framework could inform future research into further exploring key concepts and themes that emerged in this study and testing new hypotheses of the relationship between variables. This study was conducted innovatively through alternative public health frameworks: counterpublic health and queer theory, ANT, risk environment framework, and drug use contexts through assemblage theory. The findings produced by such a design may encourage harm reduction research to adopt a similar conceptual framework to study and reexamine complex health issues that continue to persist among marginalized populations despite current efforts undertaken to address them. Finally, the researcher's position as a self-identified SGD "insider" and their ability to authentically and nonjudgmentally relate to SDU afforded them access to participants and their experiences, shared meaning-making, and strengthened the validity of findings (Merriam et al., 2001). This study acknowledges the aforementioned limitations and strived to present a balanced and authentic representation of the participants' lived experiences. As noted, the ability to be open, authentic, and committed to representing participants' experiences accurately is more critical than insider or outsider status (Dwyer & Buckle, 2009).

Implications for public health research and policy

National politics around recreational, illicit substance use remain fixated on the problematic (mis)use of drugs and its health effects that disproportionately impact marginalized populations. A CPH perspective challenges these normative views of such behaviors and lifestyles and advocates for a more nuanced understanding of substance use and sexual intimacies within queer communities; it emphasizes the importance of recognizing harm

[19] As described in detail by Roulston (2010), I adopted a *romantic* conception of interviewing, which recognizes the active role of the interviewer in generating data through establishing genuine rapport and trust with participants. This approach contrasts with neo-positivist methods by emphasizing the interviewer's influence and reflexivity and aiming for intimate, self-revealing conversations that provide in-depth insights into participants' life worlds. The data collected were interpreted through various theoretical lenses, highlighting the interviewer's subjective position and relationship with the interviewees.

reduction strategies not as mere responses to drug use and sexual activity but as integral practices that affirm identity, foster community support, and promote health and wellbeing. More importantly, the prohibition and criminalizing policies that govern how citizens should act around drug use and sex remain rooted in prejudiced moral panic. Research findings inform nuanced harm reduction interventions that improve health and sexual wellbeing and mitigate drug-related harms among queer people based on a sample of predominantly GBM/MSM. While the focus of this paper is on SDU, these findings exist within the larger context of the opioid crisis and overdose deaths both in California and nationally. Opioid drugs are not commonly used in SDU, but the overarching harm reduction principles discussed here are vital in addressing this broader public health crisis. This includes the observed proactive use of PrEP and ART, despite minimal use of condoms, demonstrating a selective approach to risk that public health policies must better accommodate. Findings also reflect the lived experiences of queer people engaged in SDU and illustrate the potential of CPH to inform harm reduction interventions that respect unique realities. Particularly, the community-specific adaptations of PrEP and ART underscore the need for public health strategies that support personalized engagement with these tools. These adaptations and selective risk management strategies provide concrete instances of CPH in action within the present study.

This work poses impacts health policy and criminalization laws by producing evidence that furthers our knowledge of SDU by exploring the overlooked harm reduction strategies, giving voice to unproblematic SDU within sexual-social networks. This work also calls for eliminating the pervasive stigma that spans through the socioecological levels of community, service provision, structural institutions, and HIV and drug policy. This study advocates for a shift in public health research towards a model that values individual autonomy, respects diverse forms of care, and seeks to destigmatize practices often marginalized by conventional health narratives. A CPH approach paves the way for genuinely inclusive and effective policies and interventions, potentially diminishing the hold of societal stigmas. Instead of readily viewing illicit substance use during sex as maladaptive or addictive, this study behooves future public health research to explore SDU as a space for pleasure, experimentation, self-actualization, and social bonding, thereby imbuing sexualized drugs with a “functional use” in queer subcultures and sexual practices while still addressing the risks of harmful drug effects.

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Paper 3 – ”I’m doing it willingly”: Understanding moral agency, empathy, and stigma in the context of sexualized drug use

Sexualized drug use (SDU), the use of recreational drugs during sexual activity, is a complex practice involving a range of social, ethical, and health-related considerations. Previous research has often focused on adverse health effects and individual risk management within SDU contexts, lacking a more comprehensive understanding of the broader social and ethical dimensions that contribute to moral action and harm reduction. This study explores the interplay of moral agency, empathy, and stigma navigation among sexual and gender diverse (SGD) individuals participating in SDU. A counterpublic health framework guided the study to understand and center the unique experiences and challenges faced by this marginalized population. A purposive sample of adult SGD people residing in California who report having engaged in recent SDU were recruited through online mobile hookup applications/websites and snowball sampling (n=18). In-depth interviews were conducted using a semi-structured interview guide, and transcripts were analyzed using a modified grounded theory approach. The average participant age was 42 years ± 11 years. All but one identified as cisgender male, and nearly two-thirds identified as gay. Results show a spectrum of moral considerations, ranging from personal responsibility for one's health to collective responsibility towards partners, including practices like informed substance use, honest communication, and harm reduction. While some participants compared themselves to others as a responsibilized user and perpetuated negative stereotypes, others resisted stigmatizing narratives by actively including partners in their harm reduction practices and engaging supportive social networks. Findings also highlight the role of empathy in shaping one’s moral position and facilitating inclusive social environments, which can mitigate the negative impacts of stigma. These findings offer practical insights for developing more prosocial harm reduction interventions that address intra-community needs and teach individuals how to practice affective empathy and collective responsibility.

Keywords (7): Agency, morality, empathy, stigma, sexualized drug use, responsibility, counterpublic health

Word count: 289

Introduction

The practice of sexualized drug use (SDU), recreational drug use within sexual relationships, has been a focus of harm reduction programs due to its associated risks and harms, which includes sexually transmitted and blood-borne infections, drug-related side effects or substance use disorders, and an increased risk for mental health-related problems or other health issues. Despite these well-known risks, people still engage in SDU due to the pleasures and social connections it can provide. Duff (2014) argues that public health policies on substance use fail to account for the complex, individualized interactions between people and drugs, which vary widely across different social, physical, and biological contexts, making universal guidelines impractical. While SDU, particularly chemsex or party and play, is most common and studied among men who have sex with men or MSM (Healy-Cullen et al., 2024), stigma and discrimination have led to gaps in research, the lack of health programs or access to thereof, and an overall lack of action at the policy level to protect the health of the broader LGBTQ+ population who use drugs (Mofokeng, 2024).

Currently, the use of illicit substances, and to a lesser extent unprotected sexual practices that can be addressed with today's biomedical interventions, connotes a universal social stigma that renders the individual solely responsible for their own health and behavior. This pressure ascribes health as a moral value in our society and compels individuals to exercise agency in their health's best interest (agodfrey85, 2018). At a societal level, the U.S. harm reduction model remains a mainstream approach to mitigating the risks involved in SDU when occurrences of both drug use and sex coincide with each other. Since its earliest permutations, harm reduction has been viewed as the public health solution to behaviors that are deemed inherently harmful or risky given the magnitude and context of their consequences, whether they remain individual or negatively impact those surrounding them. However, while this model appears to be value-neutral and aims to reduce harm without judgment, it can still perpetuate stigma by implicitly labeling these behaviors as problematic and by placing the onus of health management solely on individuals without addressing broader social and structural factors.

While research on specific SDU like chemsex has predominantly focused on deficit-based issues or health problems with its participants (Healy-Cullen et al., 2024; Møller & Hakim, 2021), more recent research has shifted to focus on potentially positive aspects of SDU like social connection, interpersonal peer support, and pleasure (e.g., Gonçalves et al., 2016; Moyle et al., 2021; Race, 2017; Stardust et al., 2018; Strong et al., 2022). This shift in research challenges stigma associated with SDU by highlighting the positive experiences and social benefits of these practices. This resistance is aligned with the goals of harm reduction.

Verweij and Dawson (2007, p. 13) argue that, "if we have a clearer idea of what is meant by 'public,' then perhaps we can make some progress in thinking through what 'public health' might be, and that this will in turn help us to provide a focus for exploring arguments about the moral justification of actions and inactions as part of a wider discussion of public health ethics." Understanding 'public' in this nuanced way improves our approach to harm reduction, setting the stage for a counterpublic health (CPH) lens that critically examines the intersection of public

health paradigms with the unique experiences of marginalized communities, including sexual and gender diverse (SGD) individuals. This broader perspective helps contextualize individual actions within larger societal frameworks. This paper utilizes a CPH lens to examine how SGD individuals understand and exercise their moral agency in the context of navigating SDU. This exploration is crucial for understanding how stigma and empathy influence moral action, which can in turn inform more effective harm reduction practices.

Based on interview data with SDU participants, this paper focuses on how participants engaged in harm reduction understand and exercise moral action[20] and its related concepts of agency, empathy, and responsibility in the context of stigma. This study is guided by an overarching conceptual framework presented by Mangosing (forthcoming). A CPH perspective sheds light on how marginalized communities seek acknowledgement of their health needs and desires and challenge traditional or mainstream narratives of health (Mangosing, forthcoming). CPH has four tenets: centering counterpublic voices, valuing local knowledge and practices, emphasizing corporeal learning and embodied practices, and resisting normalizing effects. One of CPH's predominant research contexts is harm reduction, and thus CPH provides an alternative approach to either complement or challenge the mainstream harm reduction model in public health.

If agency (one's ability to act) is to be exercised at the individual level – particularly in instances of self-control or self-management through harm reduction practices – I argue that it is necessary to consider how stigma as a driving force can influence one's actions or choices in situations such as SDU. Whether internalized by the individual or externally driven by their social network and wider society, stigma can impede or facilitate one's actions or behaviors. In line with a harm reduction model, one approach to reducing the impact of stigma among individuals within a community is the practice of empathy, which serves as a conduit of understanding and feeling for another person's life experience and circumstances that may be either unfamiliar or familiar to an extent.

As a social behavior, one of the goals of SDU is the attainment of social connection (Race, 2008, 2017; Race et al., 2016), which calls for empathic capacity within interpersonal interactions with potential partners to understand life circumstances and personal practices. This other-directedness requires an openness to understanding and incorporating the perspectives and mental states of others into one's ethical deliberations without necessarily

[20] I refer to *moral action* as a broad decision-making process that prioritizes personal and community wellbeing driven by an understanding of the social implications of one's actions. Here, a CPH framework is used as a lens to examine how individuals leverage their own cultural competencies and local knowledge to counteract mainstream public health narratives or social stigma that do not address their needs or respect their lived experiences and consequently marginalize them for their practices. For a behavior ethics focused understanding of *moral action*, see University of Texas, Austin's *Ethics Unwrapped* page (n.d.) in which moral action involves three components – moral ownership, moral efficacy, and moral courage – to translate one's intent to do the right thing into reality.

having to experience them. How then can a harm reduction model resist stigma – possibly perpetuated by the model itself in some contexts – through one's agency, morals (socially acceptable principles of right conduct), and practice of empathy and social connection?

Exercising agency within a harm reduction model calls for a deeper understanding of how stigma influences individual behaviors and decisions. Moral agency, which is rooted in the capacity to empathize and make decisions based on the potential harm to others, particularly incorporates a foresight that considers broader implications of actions on both personal and communal levels. Empathy emerges as a critical aspect in this context, serving as a conduit to build understanding and acceptance across varied life experiences, thereby mitigating the effects of stigma. By cultivating social connections and supporting interpersonal peer support, I argue that individuals in SDU settings can potentially reinforce their moral agency, asserting their capacity to make informed, ethical choices despite external judgments. Together, self-control and moral agency challenge individuals to navigate complex emotional and ethical terrains, where they must manage their immediate desires and impulses.

The first section of this paper encompasses a background overview of: 1) how stigma has been conceptualized and its consequences for populations that serve as its target or object of control; 2) the public health significance of SDU; and 3) the role of harm reduction in addressing risks related to SDU. The subsequent section describes study methods and analysis. The following section presents the thematic results of this study, showing how participants draw from their own personal agency as well as community norms to manage their health as it relates to harm reduction and social interactions involving empathy. The last section presents a discussion of how the findings relate to the existing literature, study strengths and limitations, and implications for future research. Appendices providing further information on the key topic areas and concepts described in this paper can be found at the end of the document.

Stigma and its effects on health and social outcomes

Stigma is a social process linked to power and control, leading to stereotypes and labeling those who deviate from the norm (National Harm Reduction Coalition, 2021). Defined as a mark of disgrace associated with a particular circumstance or person, stigma has significant implications for societal acceptance and health equity (Ahern et al., 2007; Room, 2005). According to Link and Phelan (2001, p. 381), stigma encompasses "deeply held attitudes and beliefs of powerful groups that lead to labeling, stereotyping, setting apart, devaluing, and discriminating" thereby perpetuating the dominance of these groups' views. Stigma has also been noted to be both a fundamental cause[21] of population health inequalities and a social

[21] "Stigma (1) influences several physical and mental health outcomes that affect millions of people in the United States through multiple mechanisms, (2) disrupts or inhibits access to multiple resources—structural, interpersonal, and psychological—that could otherwise be used to avoid or minimize poor health, and (3) enables

determinant of population health (Hatzenbuehler et al., 2013; Link & Phelan, 2001). Drug users often face societal exclusion and discrimination, leading to chronic stress and negatively affecting mental and physical health (Ahern et al., 2007). Stigma serves as a tool for social control, enforcing conformity and exclusion (Ahern et al., 2007). For more on how stigma has been weaponized as a tool to change human behavior and its failure to do so, see Appendix D. As a structural barrier, stigma reinforces social inequalities, disproportionately affecting marginalized groups and limiting their access to resources and support systems (Zhu & Smith, 2021). Responses to stigma vary significantly, with active strategies like advocacy potentially mitigating its effects, while passive responses like withdrawal or concealment can exacerbate them (Ahern et al., 2007). Moreover, how drug users respond to stigma can vary significantly and affect their health outcomes. For an in-depth discussion of how individuals may use comparison as a coping mechanism for stigma, see Appendix E.

Stigma interacts with mechanisms of social inclusion and exclusion where the use of psychoactive substances can either affirm or undermine an individual's social standing depending on the context (e.g., Hammack et al., 2022; Ross et al., 2020). The use of these substances can serve as a marker of social status or lead to social marginalization, depending on the societal values attached to specific substances or modes of administration (Room, 2005; Treloar et al., 2021). This marginalization is particularly acute in cases where substance use intersects with other stigmatized identities, such as living with HIV or belonging to sexual and gender minority populations, resulting in intersectional forms of stigma (Edwards et al., 2023; Parker et al., 2017; Sansone et al., 2022). Furthermore, moral agency, shaped by the social context of stigma, involves making ethical decisions that often respond to societal judgments. As I will show in the present study, social connections facilitated by empathy help individuals resist stigma by engaging in environments that empower communal support and collective action and ultimately enhance resilience and advocacy for inclusive health practices.

Public health significance of sexualized drug use

Past research highlights that structural factors such as availability of health services, neighborhood socioeconomic status, and housing quality significantly influence health behaviors among those involved in SDU (Galea et al., 2003). Social norms and attitudes about drug use and sexual behaviors are pivotal in either constraining or facilitating risky behaviors (Galea et al., 2003). Positive social network factors like social capital, social support, and a sense of belonging contribute to substance use abstention, cessation, recovery, and lower-risk patterns of use (Card, 2024). Social policies and regulations impact the distribution of social and health resources, influencing individual behaviors and the social and health landscapes within which they operate (Galea et al., 2003). Such policies not only influence individual behaviors

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the creation of new, evolving mechanisms that ensure the reproduction of health inequalities among members of socially disadvantaged populations" (Hatzenbuehler et al., 2013, p. 819).

but also shape the social and health landscapes within which individuals operate. Discrimination against substance users often leads to profound social and health consequences, exacerbating their isolation from societal support and health services (Young et al., 2005). Poor quality social networks, adverse social experiences, loneliness, and social isolation are strong predictors of substance use behaviors and related health outcomes (Card, 2024).

Empirical evaluations have demonstrated that social support systems are vital in mediating the relationship between the adverse social environment and individual drug use behaviors (Galea et al., 2003). Across various racial and ethnic groups, effective social support can significantly mitigate substance use behaviors; however, being part of drug-using social networks has historically escalated drug use behaviors, indicating the powerful influence of the immediate social environment on individual choices (Galea et al., 2003). Biopsychosocial factors and the interactions across these factors (see Appendix F) in shaping substance use at the individual and community level are critical considerations for developing comprehensive public health strategies (Card, 2024). Indeed, "in the absence of fundamental changes, interventions targeted at only one mechanism at time will ultimately fail, because their effectiveness will be undermined by contextual factors that are left untouched by such a narrowly conceived intervention" (Link & Phelan, 2001, p. 381). If harm reduction approaches are to be successful, then they must also consider these mechanisms.

Harm reduction for sexual health and drug use

Harm reduction is a public health model that aims to reduce drug-related harm without moral or legal biases, addressing behaviors ranging from experimentation to problematic use (Erickson et al., 1997; Hilton et al., 2001). This value-neutral framework emphasizes user empowerment, recognizing that users are capable of making informed choices about their lives, taking responsibility for these choices, and playing crucial roles in prevention, treatment, and recovery processes (Erickson et al., 1997). The user-centered approach ensures that harm reduction programs are non-coercive and tailored to the participants' needs, preventing disengagement (Erickson et al., 1997). This goes on to become a principal aspect of harm reduction to affirm that people serve as their own primary agent for reducing harms and empowering individuals to not only share information but also to support each other in strategies that align with actual conditions of use (Moore & Fraser, 2006). This assumes that "The [drug] user is regarded as an active rather than a passive entity, capable of making choices about his/her own life, taking responsibility for these choices, and playing an important role in prevention, treatment, and the recovery process," (Moore & Fraser, 2006, p. 3038).

Moreover, mainstream harm reduction strategies in the context of chemsex have often been criticized for their narrow focus on individual behaviors without sufficient consideration of collective ethics and community action (see Appendix G). These strategies may inadvertently perpetuate stigma by failing to address broader social and psychological harms, such as those caused by discrimination and minority stress (Healy-Cullen et al., 2024; Pollard et al., 2018). Furthermore, conventional harm reduction approaches often neglect the aspect of sexual pleasure and well-being, which are essential components of sexual health. To address these

limitations, integrating harm reduction with a CPH approach that emphasizes co-creation with marginalized communities could prove advantageous. Such an approach can provide a solid basis for producing evidence on the safety and effectiveness of community-developed harm reduction strategies and ensuring they are truly reflective of the needs and realities of those engaged in chemsex (Healy-Cullen et al., 2024). This could mark a significant shift from traditional harm reduction.

Integrating the concepts of moral agency, empathy, and stigma within a CPH framework involves challenging dominant public health paradigms and promoting approaches that are grounded in the experiences, needs, and desires of marginalized populations. This integration has three applications in the context of SDU. First, CPH centers counterpublic voices by actively involving people who engage in SDU in the creation of health narratives and focusing on their moral agency and self-autonomy to value local knowledge and practices. Secondly, CPH emphasizes corporeal learning and embodied practices by exploring how individuals understand empathy to (dis)connect with others and how empathic interactions may acknowledge the physical and emotional states of others. Thirdly, CPH addresses stigma (as a dynamic element) and resistance by identifying normalizing pressures that define what are considered 'healthy' or socially 'acceptable' practices and how individuals interrogate (or perpetuate) stigmas around SDU behaviors, including harm reduction. See Appendix H for more on conceptual definitions of agency, empathy, and resilience in social connection.

Methods

Based on interviews with people who engage in SDU, this paper analyzes thematic core categories – *personhood/identity*; *context*; *learning*; *resources*; and *body* – that I believe are tied to moral agency, empathy, and stigma using a modified grounded theory approach to analysis. This approach examines the interplay between personal narratives and the broader social and cultural contexts, particularly how individuals navigate stigma, enact moral agency, and engage in empathetic interactions with others engaged in SDU. Themes related to moral agency and empathy were particularly emphasized to align with the research's focus on using a CPH as an overarching lens for resisting stigma and normative health narratives in the SDU context.

I interviewed a convenience sample of individuals who report engaging in SDU and seek partners online to investigate areas of drug use and sexual activity, harm reduction and health, partners, personal experience, and knowledge and perceptions. I employed an open-ended semi-structured interview format to allow participants to share their personal narratives while providing key information to further inform harm reduction practice. This study was approved by the University of California Berkeley Committee on Protection of Human Subjects.

From March 2022-January 2023, potential participants were approached through their profiles on relevant online mobile hookup applications[22] (apps) including Sniffies and Grindr, as well as Fetlife.com, where a preference or interest in SDU, party and play (PnP), or chemsex could be indicated within their user profile either explicitly or implicitly. Through my own experiences as a frame of reference, I utilized coded language and emojis/emoticons in study announcement posts or direct messages to recruit participants who expressed any engagement in SDU. Interested parties were screened via chat to ensure they met the study criteria: 18 years or older, ability to read/speak English, residing in the U.S., identifying as a sexual and/or gender minority, and reporting any current or recent history of SDU, excluding alcohol only. Eligible participants received a 1-page Information sheet and were scheduled for interviews. Snowball sampling was also used to recruit additional participants by asking participants post-interview to share information about the study with others in their social network who might be interested in participating, either by word of mouth or forwarding the study's 1-page information sheet.

The informed consent process took place right before the scheduled interview. Participants were asked verbally to consent, and their affirmative consent was recorded on audio. Participants had the option to refuse any question and terminate the interview at any time. Semi-structured, open-ended interviews either over Zoom video/audio or in person lasting approximately 60-90 minutes were conducted using a semi-structured interview guide. The guide explored how interviewees practice and navigate HIV/sexually-transmitted infection (STI) prevention and harm reduction strategies within their sexual networks, their experiences engaging in SDU, and the relationship between SDU and condomless sex using online social networking apps. Interviews were audio-recorded, transcribed verbatim, and identifiers were removed. Participants received $30 compensation through an online cash transfer app of their choice.

The in-depth interviews were analyzed using a modified grounded theory approach (M-GTA) to identify emergent themes related to SDU practices (Akiko, 2018). M-GTA is suitable for cases with process characteristics and allows for the theoretical construction of SDU as a phenomenon within a network (Akiko, 2018). The analysis involved concept formation via open coding and thematic category formation via selective coding. Concepts were recorded on analysis worksheets with definitions, examples, and theoretical notes. Thematic categories

[22] The investigation of the social digital interactions on the Internet as a methodological space for this research offers critical insights into how individuals engage in subcultural formations, respond to stigma, and present their identity (Frederick & Perrone, 2014). As Fitzpatrick and Birnholtz (2018) highlight, location-based social apps for MSM not only facilitate face-to-face interactions but also serve as platforms where users manage relational dialectics such as autonomy versus connectedness and openness versus discretion. Moreover, Wu and Ward (2018) note that dating apps for gay men function as important social mediators that offer users the discretion to manage how they present their sexual and drug-using behaviors. This digital environment allows for the exploration of self-presentation strategies and interaction dynamics.

were formed by grouping related concepts, and core-categories were developed by integrating these themes. Constant comparative methods were used to analyze and compare new data against previously collected data, ensuring the refinement and validation of themes. I served as the sole coder of the transcripts, employing methodological restriction criteria to reach theoretical saturation based on the scope of the research question, study time allotment, and available resources.

Results

All in-depth interviews (n=18) were conducted during the nine months from April 2022 to January 2023. The average age of the study sample was 42 years. Two thirds resided in the Bay Area, in northern California. All but one participant identified as cisgender male, and nearly two-thirds identified as gay. Others identified as queer, pansexual, or bisexual with one identifying as transgender female. A little over half of the participants were living with HIV. Most (xx%) had completed some college or were college graduates, while the remainder had completed up to high school or had attained graduate-level education. The majority of participants were recruited through an online hookup app, one participant was recruited through a website, and one interviewee was recruited through snowball sampling or peer referral.

The themes identified illustrate the nuanced ways in which sexual and gender diverse individuals understand and exercise moral agency, navigate stigma, and cultivate empathy within their interactions and communities. Broadly, the findings underscore the significance of personal choice and control in engaging with SDU, highlighting participants' capacity for informed decision-making influenced by their notions of morality and ethics, perceptions of stigma, and the role of self-identity rooted in their upbringing and past experiences. The role of empathy in facilitating supportive interpersonal relationships and community connections is critical, tracing the impact of both internalized and external stigma on individual behaviors and how these influence participants' presentations in both online and offline spaces. These themes collectively highlight the complex interdependencies between individual actions and the broader social contexts, emphasizing how sociocultural dynamics and community building play significant roles in shaping participants' individual experiences. By exploring these dynamics in detail, the findings below provide a deeper understanding of the challenges and strategies employed by individuals within marginalized communities to manage their health and social engagements in SDU, while resisting public narratives and moral judgments. The following section is divided into two main parts/themes, *Moral agency as responsibility and choices influenced by stigma* (moral and ethical considerations; identity, upbringing, and past experiences; and Internalized stigma and externalized stigma) and *Empathy, relationships, and community in the resistance of stigma* (partner and interpersonal relationship dynamics; building empathy through social connection; and resistance to normative health narratives).

Moral agency as responsibility and choices influenced by stigma

Participants broadly discussed how it was their choice to engage in SDU, both taking into consideration the prevention of or at least the management of anticipated health effects and, at times, maximizing potential pleasure. They attributed their decision-making to the presupposition that any willing participant of SDU inherently possesses willpower capable of executing informed choices while still being responsible throughout the act. P01 describes how individuals have free will and that any failing in life would be due to a "weakness" of the mind:

> P01: *I mean definitely think that everybody has free will, you know in regardless of the situation, people get curious and they're going to try a thing or two, I always say only try what you could handle. If you feel like you can't handle it, stay away from it. But then, you know that not every mind is the same in there's strong-minded and there's weak-minded and and you know, sometimes we have people just who end up in a really bad place because you know insecurity issues or you know, whatever you know things self-esteem or stuff like that.*

The responsibility here refers to the assurance that any potential harms or negative outcomes are recognized and, more importantly, are addressed through either their prevention or management, or at times, even accepted or tolerated. P10 for instance thinks that they built a drug tolerance but still remains able to maintain their high while avoiding mixing other drugs:

> I: *Yes. Would you say that you don't feel like you built a tolerance? You're able to keep at a level consistently?*
>
> P10: *I probably built a tolerance, but I'm able to, once I reach that level, it'd be good to stay there and I don't mix with anything else.*

For some participants, the ability to exercise one's power to engage in harm reduction only comes through the self, while others take a more collective or community-focused approach to responsibility and engage their partners to do the same whenever possible and consensually. P05 expresses their moral awareness in the social consequences of their individual actions:

> P05: *If I'm either too focused on or have to be too focused on my own health because I made avoidable decisions and that's the key word there. If it's avoidable, right? I would never be able to forgive myself on that, because it would be that guilt of like, "Wow. I made a stupid mistake that is now affecting that person's life, and they didn't make that decision. I made that decision, and now it's created a negative consequence for someone who might not have ever been in that situation.*

In general, participants vividly delineate between what they perceive as 'good' or 'bad' behaviors within the context of substance use and sexual decision-making through varying views on morality and ethics. This binary is often informed by an introspection about personal

capability and responsibility, as well as the broader societal messages regarding morality and substance use. P03 suggests that being responsible here requires to be "level-headed":

> P03: *To be responsible, you know...know what you. Sorry, so everything you can [know] about yourself and how the drug reacts to you and how you react to it and Just try to be. More levelheaded about it, you know.*

Three key areas that influenced one's capacity to invoke their agency to act and their ability to act responsibly include the following: 1) how the participants construct their own notion of morality and ethics; 2) how their perceptions of stigma around certain behaviors and objects are in turn embodied; and 3) how the role of self-identity and upbringing potentially frames agency and responsibility.

Conceptions of morality and ethics

Participant narratives on the ethical dimensions of substance use and sexual behaviors revealed a spectrum of moral considerations that differentiate personal from societal values. Most participants described holding the belief of looking out for one's health, as a personal responsibility, which aligned with certain harm reduction practices including knowing one's limits with substances and their effects on the body. For example, many described only considering certain substances (e.g., cannabis) while avoiding others deemed too risky (e.g., crystal meth), as well as engaging in routine HIV/STI testing and treatment. A salient aspect of informed selectivity concerned the selection and administration of certain SDU drugs, particularly in knowing how certain drugs lead to a disinhibition that ultimately lowers one's sense of morality. P11 expresses their feelings towards partners who choose to willingly inject drugs and how they would not help them:

> P11: *Oh, I basically say fuck them at that point. If they're going to put a needle in their arm, if they don't know how to fucking do it themselves, because I'm not helping them, they're fucked. Then they're fucked at that point. I ain't going to do shit for them. I'd let them die.*

Some participants extended or reframed the concept of personal responsibility to a more communal ethic and emphasized the importance of collective wellbeing by considering the partner(s) one is engaging with, including not harming others while under the influence, notifying partners of HIV status or an STI exposure, not enabling others in drug use addiction, and respecting partner boundaries and consent; principles of honesty and integrity characterized this extended form of responsibility. Most participants also emphasized being responsible for one's life outside of SDU as to not interfere with key aspects of livelihood like one's employment and income and maintaining connection with important figures like family and friends. P08 exemplifies the former in highlighting the need to "anchor" oneself in reality:

> P08: *Okay, but if you cannot anchor yourself into reality, if you don't have a place that you need to go back to this thing, it'll suck you down the drain. It'll consume you, and I*

have seen that to people, because I have this person...I told him, "We're not going to party if you're working tomorrow."

On the other hand, P13 goes a step further and shares that they wish to return back to a sober life not consisting of drug use because it's not worth it for them:

P13: *And, you know, I'm really trying to, be a better person for myself and just live life sober, sober as possible from these negative experiences that were once positive, you know, during, during the moment. it's not really worth it for me, and it's not really worth it for others, I feel like. Yeah. It's sad. It's sad cuz you see people just lose themselves, you know, they destroy themselves really, essentially everything from their teeth, you know, their face, everything, it, they just spur themselves. And what people don't realize is like, you know, you see these people, you come across 'em every day in your everyday life.*

Lastly, a smaller number of participants expected their partners to adhere to a similar value system without needing to be educated or advised on how to carry out themselves appropriately, noting that it was not their place or position to concern or involve themselves in their partner's wellbeing. This was reinforced by the notion that one willingly accepts risk by engaging in SDU and therefore should be informed or knowledgeable around harm reduction practices and health outcomes.

While some participants adopted a perspective of only looking out for yourself by practicing harm reduction that benefits your own health and safety as a form of personal responsibility, others extended this responsibility to necessarily concern promoting the health of one's partners as well. Participants grappled with how their SDU was viewed both within the community and the wider public, with community views pressuring them to avoid others posing as a perceived harm or practices that cross their boundaries and societal views influencing decision-making involving varying stigmatized behaviors (e.g., varying acceptability across drugs and their risk for addiction). The narratives around morality not only shape participants' decisions but also resonate with their sense of identity and the stigma they navigate, emphasizing the relative nature of personal ethics with community values and self-perception.

Identity, upbringing, and past experiences

Participants often cited their upbringing and past experiences as significant influences on their identities and behaviors. Some recalled how they were raised by their parents to carry themselves in a responsible manner throughout life, which included in relationship to substance use. This development process was salient in various ways, including familial responsibility (e.g., being capable of looking out for your family members), religious ideals, and common moral beliefs (e.g., treat others how you want to be treated). P08 references their upbringing that teaches them to respect others, and P16 recognizes the impact of their parents:

P08: *Yeah, and a lot of people that I party with, find that really weird about me. They think I'm a moment killer* [one who disrupts fun activities] *when in fact, no, this is just ...*

this is called upbringing. I was brought this way. I will not disrespect the host so that I can play and party with you.

P16: *It's like even if my mom or dad weren't around, I could still hear them in my head. Yeah. Like, oh, you know, better. Or like, oh my God, really? Or like, I didn't raise you to like, do that or be in the surrounding, or, or even if it's, even if they're in my head not judging me, it's like they're in my head like, okay, well what if something happens?*

Such experiences were reinforced when participants described themselves in a positive light (e.g., empathic in helping others, SDU as an occasional activity versus a lifestyle, holding a stable job and income, and socially desirable presentation). Experiences tended to be described in a generally positive or negative sense. Those that were negative reinforced an active individualistic avoidance of perceived or real harm, and those that were positive conveyed SDU that meets their desired social context in terms of practice, partner, and setting preferences. For example, P02 explains how knowledge gained from experience is crucial to how they aim to make their partners "comfortable":

P02: *You know, with that with that you know knowledge is power and with. Power and responsibility great power comes great responsibility. um and. You know I consider myself as one of those people that, yeah I you know I have experienced I have this knowledge of what can happen, and what. What does happen. um. But then, so, then I try to if if I'm ever in a situation with someone who is not as experienced. I will try to control the situation. To make it comfortable for them. And, and if I need to like explain the reasons behind what I'm doing, why I'm doing them, it's just so that they can see I'm not trying to you know, screw them over in one way or another.*

Participants sometimes compared themselves to other individuals who are not faring well in their SDU, with participants describing themselves as a responsible user as opposed to another with problematic use that entails addiction and other poor life circumstances. Others, however, chose to position themselves within the wider community of people engaging in SDU responsibly in order to create a more positive collective representation. All participants' motivations for engaging in SDU were also tied to whether they identified themselves, either explicitly or implicitly, as responsible or irresponsible, with the former citing self-discovery and desire for belonging and the latter noting a struggle of addiction or escape from reality.

Overall, the shaping of identity through upbringing and personal experiences prominently figured into how participants view and react to substance use and sexual behaviors. Many individuals traced their current perceptions and behaviors back to their early (values instilled by their families and cultures) and current life experiences that could be viewed as positive or negative. While some participants linked their cautious approach to relationships and substance use to lessons learned from their parents or family upbringing, others chose to present themselves as the responsible user who engages in SDU as a part of their lifestyle in relation to the irresponsible user who makes SDU their life's main priority. These identities play a crucial role in how participants frame their understanding of morality and manage the stigma

associated with their actions, highlighting a feedback loop that reinforces the connection between personal history, ethical considerations, and societal expectations.

Internalized stigma and externalized stigma

Participants frequently discussed the impact of stigma in terms that can be understood as both internalized versus external stigma. In facing internalized stigma, the reframing of personal narratives emphasized participants' own ability or agency to be a responsible user, as evidenced by their consistent description of an individual with problematic use who should be avoided due to not only drug- or sexual-related harm but also worry over disorganizing one's home space or property theft. This included any indication of one lacking self-control over their drug use, usually in the form of drug addiction. These participants distinguished themselves from individuals lacking self-control and presented themselves as capable of engaging in SDU more appropriately or discreetly, thereby absolving them from a higher degree of stigma that those less capable are more likely to experience. This group of participants included those who described ensuring that their hygiene was cleanly maintained or that their home was tidy if they hosted partners. These participants described how they brought this perspective to navigating the hookup app they are using to find potential partners, focusing on whether any of the person's profile photos or sent photos presented any signs they perceived would be indicative of one who exhibits problematic use like hygiene appearance and bodily features. They carried out a similar process when actually meeting a new partner through an in-person assessment if no photos were exchanged or if their present appearance did not match any shared photos. Stigma around appearing or being perceived as a problematic user highlights a more salient concern with self-image and presentation rather than actual harm. P06 elaborates on historical social representations of injection drug users and compares them to his current experiences seeing them, indicating that such individuals may not have any "outward signs" of drug use:

> P06: *I think that the caste system, if you will, kind of develops because of what's associated with each and maybe it's not anymore, but at least for a good long period, the only people who did injection drugs, there was a certain type of people. And these are the people who came with bad consequences, these are the people who came with health issues, these are the people who had the prototypical phenotype of a drug user. These are the people who might steal from you. So, there is just like, "Oh, we're going to put these people down here." Remind you, I see injection drug use on, not completely, but almost as ubiquitous as smoking. And there are people who have no physical or outward signs that they use drugs, who inject regularly. So, the stigma and those things they got attached to, IV drug use, have remained, even though some of the people have changed.*

In response to externalized stigma, all participants adopted various forms of harm reduction in SDU, including those related to STI/HIV prevention and drug-related side effects. By doing so, they emphasized personal wellbeing and informed choice in response to externally imposed judgments or moralizing approaches to SDU. The anonymity provided by some online

hookup apps also shielded some participants from direct external stigma while still allowing them to seek partners or community interaction, which can also buffer external stigma. It was also common for some participants to identify as engaging in SDU occasionally as opposed to regularly and avoiding highly stigmatized illicit drugs that are deemed to be a gateway to addiction and result in losing one's self-control. While these distinctions are not explicitly stigmatizing other individuals, they served as a form of defense mechanism against anticipated stigma through self-comparison (or resembling what is known as *splitting*[23] in psychiatry). To a lesser degree, some participants extended their response to stigma by considering what their immediate social circle – family, friends, loved ones – may think of their SDU or drug use more so. This strategic disclosure or concealment response to externalized stigma placed importance on maintaining a private and discreet lifestyle. P12 explains how no one from their social circle is aware they use meth, how it influences disclosure to partners they wish to get closer to, and how those in their circle would avoid users:

> P12: *No one knows in my circles that I even partake in, the hookup that I had like three ago. for some reason he suspected he never clarified why, because it was messy conversation and texts and we both were very, bratty at each other about it. So, we never, I never like got the answer from him, but for some reason he suspected. I denied it at first was because I was like, I actually somewhat have an interest with this person, so I didn't wanna, potentially ruin it in sense just because generally is frowned upon, you know, smoking methamphetamine. So, I'm like, I don't need that to be, a deal breaker, so I want to get to know the person more. But that's about it really. Mm-hmm. <affirmative>, most of my circles don't know because they all have* [an attitude] *"Well, if the person's using methamphetamines, I don't wanna deal with them.*

P10 supports this social pressure to not identify as a drug user by discussing people who have claimed that they do not engage in using and then finding out that they do:

> P10: *Even the people that you don't think are doing it, are doing it. I chatted with people that are like, "No way. Blah, blah, blah. That's gross." And then I would meet somebody who's hung out with that person, and he just... I mean, you never know. It's around more than one would think.*

In summary, participants frequently reflected on how social stigma influences their sense of personal responsibility and decision-making. Internalized stigma led many to adapt their behaviors to protect their self-esteem, often choosing to present themselves responsibly in terms of substance use frequency and some also maintaining a clean (hygienic) and orderly

[23] Splitting is "a mental mechanism in which the self or others are viewed as all good or all bad, with failure to integrate the positive and negative qualities of the self and others into cohesive images. Often, the person alternately overidealizes and devalues the same person" (Black & Andreasen, 2020, p. 575).

appearance both online and in-person (and in their home if they are hosting). Many avoided addictive substances as part of their harm reduction strategy; and some explicitly avoided individuals perceived as higher risk, like those perceived to be experiencing drug addiction or homelessness, to mitigate personal and social risks. They discussed these tactics when asked directly about their harm reduction approach. These strategies revealed the complex ways individuals navigate their identities within a broader sociocultural framework, adjusting their behaviors based on both internal motivations and external community standards.

The investigation of individual agency and moral decision-making within the context of SDU clarifies the complex ways in which participants navigate personal and societal challenges. Transitioning from understanding the moral positions and personal responsibility in SDU to examining the broader dynamics of interpersonal interactions and community engagement reveals that individual choices are deeply interconnected with the social environment. Decisions made in the personal sphere are influenced and modified by the dynamics of relationships and community norms. This shift underscores the important role that social connections and community involvement play in shaping one's experience. By examining the relational and communal dimensions, I further elucidate how collective actions and peer influences serve both as resources and as arenas for the enactment (as well as constraint) of agency, illustrating the interconnectedness of personal choices with broader social interactions.

Empathy, relationships, and community in the resistance of stigma

While social norms ascribed to by participants can be traced to their experiences, identity, and personal beliefs , participants also attributed their decision-making in SDU to interpersonal interactions and the community in which they are embedded. The context, any preexisting relationship with a partner, and progression of an SDU session shaped their behaviors. The process through which harm reduction or pleasure seeking was exercised could be facilitated or restrained by partners involved at that particular time and setting. The onset of these social connections is at the initial sex-seeking phase within the online mobile app that participants used. The combination of user profile information and two-way written communication then sets the stage for confirming whether they match to engage in SDU. P14 notes that they would treat the act of getting high(-er) with another person for a "better social experience," comparing it to sharing a beer and doing so willingly:

> P14: *There's something like, if, if they're getting high and they wanna get more high with me, it's kind of like a, a social, I wouldn't say it's a pressure, it would, I'm doing it like willingly, so I would say, it's kind a moment like, you know, sharing a, a glass of wine or sharing a beer. I would do it like, in, in that way, like they're offering me. So, I'm willing to share it to partake... I usually, I do it. I don't do it on my own very much. I do it like to, to have a very, a, a better social experience.*

However, as participants met with partners face-to-face, three relational processes emerged around the interpretation of sociocultural dynamics and building of [counterpublic] communities: 1) the development of relationship and partner dynamics via trust and mutual

desire; 2) empathy for individuals and (un)acceptance of 'risky' practices; and 3) advocacy for resisting public health narratives of moral judgment.

Partner and interpersonal relationship dynamics

Participants' partner-seeking largely fell within a binary of stranger or anonymous versus connected or romantic. Those who preferred the former typically adopted a personal responsibility for the self and were not as concerned with how their partner is faring within a casual or anonymous encounter, highlighting the notion that one should solely be responsible for their actions. In contrast, those who approached the latter formation typically extended their perspective of care to partners they have established and maintained a connection with, however defined. There is not always a clear distinction between these two categories. For example, P13 discusses a dilemma of not wanting to disrespect a past partner, but choosing not to interact with them further:

> P13: *They have been trying to reach me, but I haven't even like contacted them back just because like, I don't know what to tell them, you know? Hey, like I don't wanna disrespect them either with, you know, cuz I don't wanna, you know, like, and I can't change them. I just know I can't change a stranger. Right. But if I did, I would definitely want to help them. And not just them, but anybody who is dependent on that substance, I really feel it is destroying our community. It really is little by little and it's just a horrible sensation, a horrible experience that I had to learn the hard way.*

They label that person as a stranger and decide that, since the past partner appears to be experiencing dependence, P13 chooses not to communicate with them.

Participants were very clear in describing what they desired or sought for SDU in relation to partners. When asked about online app use, some participants emphasized their reliance on this digital space to avoid the awkwardness of in-person interactions as well as to gauge their comfort with meeting partners in a way that is efficient. P16 discusses the role of soliciting health status and disclosure from potential partners both within the online app and in person to "be on the same page":

> P16: *So, if we're not in person, there needs to be a little more disclosure about if you're on something [drugs], if you're not, what your [STI] status is, yada yada. So, we can get that all out the way so that when we do meet in person, that conversation doesn't have to happen. Right. You know, I think that's the only bonus to like online because you can just get that out the way. Whereas if you meet in person, right. To me at least, like you have to think about like, 'Okay, I need to have this conversation even if it's briefly.' Yeah, so that meeting this other person or you know, as close to on the same page as possible.*

Some participants were only interested in one-on-one encounters with a single partner at a time, allowing them to invest their attention without distraction from others. Interestingly, the fulfillment of some social/emotional connection was a salient goal for many participants.

When asked about their most pleasurable SDU experiences, they often noted connecting and building trust with a partner on a social or emotional level (e.g., learning more about or from new partners through conversation or engagement in sensual foreplay), which highlighted the importance of establishing a deeper connection. For P18, this means seeking what is familiar based on their relationship experience with an ex-partner, influencing what they prefer now:

> P18: *And a lot of it comes from, you know, my past with my ex on weekends, and then I'm, you know, saying like, I could do it with someone in the future where it's a weekend thing and Sunday at noon you recoup, you go to work on Monday, you feel good refreshed. It's about being able to have that ability to control the substance in your life and the impact that it has on your life. yeah.*

The same participants who wanted repeat encounters with partners were also more likely to engage in collective harm reduction measures like STI testing notification and checking in with partners during a session. Those seeking anonymous encounters are much less likely to do this. Either way, most participants situated drug use as a method to enhance the experience with their partners by quelling the presence of insecurities and disinhibition to increase social connection. Beyond mutual attraction and connection, two other relationship features that emerged were age difference and/or (in)experience in SDU or drug use, underscoring the importance of compatibility in the relationship. While most participants were indifferent or less concerned with these factors, some participants reported them as important for compatibility (e.g., avoiding younger, inexperienced partners). For example, P09, who was 47 years old at the time of the interview, notes their incompatibility with a partner who is 20 and that the onus is on the partner to be responsible for themselves:

> I: The onus is on them to be responsible?
>
> P09: *Yes. Absolutely. Yeah, absolutely. I'm not going to have sex with someone who's 20 most likely. There's just no commonality at all [inaudible] none. I'm not interested in being someone's daddy. [inaudible]. No thanks.*

All in all, the dynamics within relationships and interactions between partners are critical in establishing and challenging the norms around substance use and sexual behaviors. Participants discuss the trust and investment required in relationships that often serve to either reinforce or contest existing community norms. Participants largely approached their relationships in SDU through a primarily casual/anonymous lens or a connected/romantic ideal. Those who adopted the former were less likely to feel concern for partners and only for themselves, while those who sought the latter were more likely to include partners in health promotion. Understanding how social connection is built (or not) prior to and during SDU illustrates how interpersonal relationship dynamics can potentially facilitate a more empathetic community of care, potentially reshaping perceptions of acceptable behavior. These dynamics are not only central in forming personal agency but also in shaping how partner interactions play out in an SDU session, thus engaging with the broader context of sociocultural dynamics and community building.

Variations in expressions of empathy

Following from relationship dynamics, empathy played a crucial role in building community connections and individual acceptance. The expression of empathy for partners, particularly those perceived to be experiencing much worse life circumstances (e.g., addiction and poverty) was associated with their knowledge of the negative health outcomes, both physical and psychosocial, that result from problematic drug use within SDU. Usually, how such knowledge was obtained or learned (i.e., researching more information online versus recalling one's experiences or their peers/partners) implicated whether one felt more or less empathy. For example, the participants who educated themselves on how SDU can result in worse health and life outcomes from a more medical perspective expressed more. However, this does not presume a subject that aims to educate or act prosocially toward the other despite recognizing that the other may not be as informed.

> P12: *I generally don't really educate the individual in that sense. Like pretty much, with the partner that I, the last, you know, three encounters with, every time we got towards like, well, yeah, the, there, there has been some like, you know, negative effects from a substance use somehow in our life. Every time we got to it, we just, we both tailor subject change of subject. Like we eventually almost like when it would cause us any like discomfort or like almost sadness immediately one or the other or both of us would say change of subject and like agree on it. So, I really don't try to educate or, you know, talk with anyone about their, or, you know, try to educate them what are their substances use in that sense. I just like to be in, so say that's you and your own personal, you know, thing. I don't need to try to teach you anything because who am I to judge or teach.*

The participants who expressed less empathy generally had either had personally experienced or heard about negative (less than ideal or unsafe or unmet preferences) encounters. This observation brings attention to negative bias and how it can influence one's ability to feel or express empathy for others.

Participants who abided by an ethos of personal responsibility through self-control were less likely to express empathy for individuals in general, emphasizing how others should be in control of their behaviors and actions (just as the participant portrays themself to be). In contrast, participants who extended their moral agency to involve partners in any harm reduction approaches and goal for mutual pleasure were more likely to exhibit empathic views for problematic drug use. The more common condition in which the responsibilized (imbued with a sense of responsibility) individual expressed empathy is if the other individual engaged in more acceptable forms of SDU (related to the kind of drugs consumed and their mode of administration). Otherwise, these participants left others to deal with the consequences due to their willingness to accept the risks of certain drug use practices. This finding not only reinforces the importance of one's moral values in shaping empathy and whether they align with others, but it also reflects the personal and social acceptability of using certain drugs. P02 conveys this

tension for the acceptability of party and play-specific SDU both within and outside their community ("gay world") and how asking if partners are into PnP is a "hit or miss:"

> P02: *Folks in the PnP community don't think of it as big of a deal as folks that are not in the PnP Community make it out to be. I think that folks that are not in the PnP community, ...or I think in culture in general is very judgmental. So, if we're talking about PnP culture or like PnP in general within gay, you know, within the gay world, it's super super ostracized and this super stigmatized...Until the point that...I always get into like nervousness, a sense of like anxiety, when whenever I pose a question, when, if I am going to hook up with someone, I pose a question, Are you party friendly?" like it's always like, that's always like a hit or miss.*

The strength or establishment of a relationship among some participants and their partners also influenced whether they would feel empathy; while a few participants noted feeling empathic in general including with strangers, most participants were keener on looking out for the health and wellbeing of those they feel a closer connection with, generally those they have had more than one encounter with. In the same vein, participants defined partner drug use in one of three ways: 1) not minding if they are sober, 2) preferring to be on the same drug and level, and/or 3) wanting them to avoid using certain drugs. In the context of new partners, P14 explains their tolerance for a certain degree of use by preferring to not know or to be unaware of a partner's level of use and high-ness and that partners "acting really weird" or disengaging from the SDU session are grounds for requesting them to leave their home:

> P14: *The only thing, my only request is that I, if, if they're doing, I don't know, Tina [crystal meth] or cocaine or whatever, I, I don't want to, I don't wanna share it and I don't need to know it. So, they might be under the influence of, I don't know, a myriad of drugs, but I don't, maybe someone is super high on, crystal meth, I can tell because they're very yeah, disengaged. And I'm like, 'You know what? I need you to go, this is too much.' Or, but they have to be like, really, really high. I'm sure I have been with people that, are in a little bit of, of, meth, and I don't, I cannot tell. So, I don't, unless they're acting really weird or really like disengaged, I will like not accept that. But I don't, I'm open if they're on drugs. Like, I don't think that, how can I explain this? That's not something I look into that much unless I feel threatened or I feel that my safety is [at risk]. Does that make sense?*

In summary, empathy (or the lack thereof) emerged as a relevant theme in participants' descriptions of their acceptance of others' behaviors and their reactions to the impact of stigma. Through empathetic interactions, some individuals created spaces of mutual understanding that challenge preconceived notions and foster deeper community connections. For example, P15 shares their idea of starting or joining a support group that facilitates social connections between mentors and mentees of the same life experience:

> P15: *I was thinking...having a, a group of people that, of having a group of users be under the, the wings of, under the umbrella of the suicidal program and stuff to, like,*

what is it called? [Empowerment] or something like that for, for, for a point that they become, how they, they have like in other like art world and in different categories of, of, of things in life that people belong to. And then they, they have their own leader or some, or somebody that does it very well and stuff like that. Yeah. Like yeah. Support group, but they, but they become mentor or something.

This encompassed holding a nonjudgmental attitude of others' behaviors, identities, and body. This empathy not only facilitates a more inclusive community environment but also enhances participants' agency in navigating their subjectivities and relationships openly in the SDU context, thereby reinforcing the interconnectedness of personal experiences, community empathy, and ultimately the resistance to negative public narratives as discussed in the preceding section. P03 expresses how people in general are "very judgmental" because "none of us are walking in each other's shoes," even admitting that P03 can be too:

P03: *This is, this is just my opinion as well on my side is that people are very judgmental and that needs to stop. because none of us [are] walking in each other's shoes we don't know what's going on. There is, there was always a percentage of... You know that even I can be a little judgey sometimes on it, 'Okay you're a little too messy [out of control]. You you just need to cool down type of thing, but that that's that's in everything but in general people just need not to be so judgmental. or. or be open to the fact that you can have a conversation with this person, because you may learn something, and you may be able to help this person*.

At the end of this quote, P03 points to the possibility of genuine empathy leading to support.

While some participants like P03 described how understanding the struggles of others within the community could lead to greater personal and communal acceptance despite social stigmatization, others relied on their own personal experiences or anecdotes, usually negative ones, told by those they trust or are close to them to influence whether someone was deserving of empathy. If these participants perceived that such individuals willingly accepted all the risks in SDU that contributed to and resulted in worse life circumstances, then the participants did not express much empathy. This viewpoint is strongly associated with an emphasis on personal responsibility and agency.

Resisting and embracing normative health narratives

From the outset, resistance to social stigma that perpetuates stereotypes was articulated by participants who challenged mainstream narratives surrounding drug use and sexuality. When asked what they would want to tell people who do not use or involve drugs during sex, participants advised against making preconceived or generalized judgments around one's behaviors and said that not everyone who engages in SDU is a "horrible person" (P10). Most participants also encouraged uninvolved people to try and understand another individual's perspective or life experience before forming any judgments, and if possible, not to judge at all. P04 explains how their personal experiences with new substances were nothing like

what everyone believes and claims that “being more open to experiencing life” is not a negative attribute:

> P04: *I’m going to assume that their perceptions of what life would be under the influence of [drugs] and just, it’s going to be wrong...Almost to a person myself included, in fact, that was a lot of, like every time I would try a new substance, and I’ll be like, ‘Okay well that was nothing like everybody believes.’ And I don't understand why people, wo- have to be that way. So going to say. Be more open to things. In general, not just illicit recreational drugs but being more open to experience is not really gonna hurt anybody. That's, probably, sorry. Gonna take it back. It [hurt] can happen. there's potential for that, but I don't think that just being more open to experiencing life is the bad thing at all.*

This call for understanding and openness aligns with a key tenet of CPH, which advocates for centering counterpublic voices and experiences to inform health practices that resonate more closely with their realities. This meant allowing for space to openly discuss one’s SDU practices and being open to learning from each other.

In describing one’s ability to exercise moral agency to build social connection and reduce the impact of stigma, P05 advises on what individuals of a community should be doing to educate themselves in order to support others:

> P05: *So maybe just help each other out and be a community that you claim to be instead of just ostracizing someone. Educate yourself on stuff. If I don't know something about either a drug that's being used or a disease that's going around or a new, exciting something method of doing a drug or sex move or something, I look it up. I research it. I figure out what it is. I don't accept the first source I find. I go find out like, "Okay, what is this?" And we have that ability here, because I'm not being chased down by a mob or whatever. And then I can help other people in the community that I want to be a part of that, it's not all that bad.*

Some participants were vocal about the potential negative consequences of SDU but were also adamant about dealing with these challenges outside the framework of normative health narratives. These participants encouraged people close to them or those who share similar experiences to establish a form of accountability network (e.g., sober support group) for individuals experiencing or recovering from addiction if possible. This community-oriented approach promoted an environment where individuals feel empowered to share their experiences and learn from one another, thereby strengthening communal bonds and enhancing the collective capacity to manage health and social challenges. P17 attributes their ability to remain sober from drug use for six months by having more sober friends:

> P17: *I have more sober friends here than using friends. I mean, definitely sober friends, I'll just say that. I mean, I do have using friends, but I'm in contact with my sober friends way more than I am the using friends. So, and to be honest with you, I've been sober for*

six months. I have not even been in contact, I don't think with any of, oh, I, yeah, I have, I have talked to a few of them, but just haven't gotten together with them.

While most participants said that everyone is capable of enacting change, a few noted that addiction or problematic use is "not a choice" (P17), a stance that goes against stigmatizing health narratives. A few participants took destigmatization further by calling for the change of structural institutions that shape the social norms around SDU, including investment in more judgment-free treatment options for substance use and criminalizing the drug dealer/supplier, not the user.

Most participants described negative stereotypes and how corresponding stigma and shame keep individuals from seeking any kind of support or care. Yet, in rendering such descriptions, some participants continued to portray themselves as the person who can manage their use responsibly, usually at the cost of further magnifying and perpetuating existing stereotypes. This was characterized by their need to maintain an organized and hygienic/clean façade. A smaller subset of participants criticized harm reduction approaches to drug use, claim that certain approaches lead to or enable problematic use. They advocate for use prevention and not harm reduction, but only for the most addictive and risky of substances – mainly crystal meth. P09 implies that harm reduction for illicit substances detracts resources from other issues needing more attention; they object to "helping someone who's a drug addict to be less of a drug addict":

P09: *Yeah. Well, I think the question is ... All this effort being made to help people use illegal drugs more responsibly or just them from stop using it. You know what I mean? Is it going to be this incredible expense just to come to the realization that we can't actually do it?*

I: *Or we can't keep people from going over the-*

P09: *Spiraling out of control and going into a negative place with it [drug use]. Is it worth the time and money that we're going to be spending on it now, just to help people use drugs less frequently when there are real issues in the world? You know what I mean? There are other issues that require money, spending, and attention. And we're giving attention to helping someone who's a drug addict to be less of a drug addict? How about just nip it in the bud?, That would be kind of where I'm coming from, just after all my experiences.*

Thus, certain mainstream narratives like P09 described were not resisted but rather embraced among some participants. By individually exemplifying what a responsibilized user should be, these participants may resist stigma at the individual level but not within a larger social context.

Overall, resistance to public narratives and moral judgments was mixed at most among participants who found themselves at odds with mainstream societal values, particularly around issues of illicit substance use. Resistance was not merely a rejection of external

judgments but may also serve as a proactive assertion of community-specific values and norms. To an extent, the refusal to adhere to stigmatizing labels and the active reshaping of community narratives around substance use exemplified how individuals and groups asserted their agency. This included the mainstream belief that those who engage in SDU or drug use more broadly possess the potential for enacting change in their life through personal agency mitigating the effects of stigma at the individual level but at the cost of perpetuating it socially.

As mentioned above, some participants advised creating support networks as a community-oriented approach to promote health in a destigmatizing manner. This suggestion linked to the community's more empathetic practices and relationship dynamics, advocating for less judgment and more empathy to allow for open discussions and mutual learning. However, some participants inadvertently embraced stereotypes by portraying themselves in a more socially acceptable light despite intending to resist stigma (individually). This self-centering mindset, despite resisting stigma to some degree, lacked signs or intention for social connection. In this case, moral action operated independently of any community norms and reflected the adoption of self-responsibilisation in response to stigma; this scenario conveyed an individualistic, exclusive harm reduction approach at the potential cost of marginalizing others in the SDU context. In contrast, moral action that concerned and involved others in some empathic capacity relied on a prosocial approach to connecting with partners; this conveyed a nonjudgmental approach to harm reduction and mutual pleasure.

Discussion

This study explored the nuanced dynamics of moral agency, empathy, and stigma navigation within the context of SDU among SGD individuals in California. The findings demonstrate how these individuals draw from personal agency and community norms to manage their health as it relates to harm reduction and social interactions. Findings also highlight how individuals navigate, and at times, resist and reshape the normative narratives imposed by mainstream health discourses. Empathy played a key role in facilitating a more inclusive harm reduction practice. In participants' description of connectedness more broadly within the social space and their efforts to mitigate the effects of stigma, Card et al.'s (2018) latent class analysis elucidates this quantitatively by showing how community connectedness and the social roles of substances significantly shape behaviors and support systems among gay and bisexual men. However, this present study also uncovered a spectrum of attitudes towards problematic drug use and how harm reduction is perceived or defined. Treloar et al. (2021) similarly documented a hierarchy of acceptable drugs and modes of administration surrounding crystal meth and inform the internalized stigma observed among individuals engaging in SDU. This variation underscores the need to distinguish definitions between chemsex and other forms of SDU in that the former is often associated with higher risks such as increased rates of HIV, STIs, and greater engagement in risky sexual behaviors (Poulios et al., 2023).

Poulios et al. (2023) highlight the importance of nuanced harm reduction strategies that address the specificities of chemsex, which requires a deeper understanding of the socio-psychological impacts distinct to this SDU. Moreover, substances may serve to enhance social

bonding and cope with minority stress, which are critical aspects often overlooked in traditional harm reduction models (Card et al., 2018). Research by Pollard et al. (2018) also supports this in their discussion of stigma, minority stress, and maladaptive coping within risk environments in the syndemic context. Thus, harm reduction strategies could incorporate and benefit from a more holistic view of substance use by considering chemical substances as potentially empowering rather than deterministically detrimental (Tan & Tan, 2024). Hammack et al. (2022) further comments on the complex intra-community dynamics of stigma within sexual minorities, both for using and abstaining from substances. This study contributes to a deeper understanding of the challenges and strategies individuals use to manage their wellbeing in the context of a stigmatized behavior in addition to marginalized identities. Harm reduction can be effectively integrated with strategies that promote social support and interpersonal empathy while reducing the impact of stigma to pave the way for policies and practices that are inclusive and empowering.

A key finding of this research is that moral agency – a relevant decision-making process – is significantly shaped by stigma. Stigma not only influences personal and societal perceptions, but it also affects individuals' capacity for empathetic responses and ethical decision-making. In contemporary Western culture, individuals are generally held accountable for their actions if they have the option to choose otherwise (Pickard, 2017). Not only does a moral model (of addiction) categorize drug use as a deliberate choice and attribute responsibility to users, but it also assigns blame, thereby viewing them as deserving of stigma and harsh treatment due to their choices (Pickard, 2017). Thus, it is not surprising that some participants, particularly those who expressed abiding by such a model, viewed harm reduction as something that only concerns oneself and should only focus on individual wellbeing. This complex relationship underscores the critical need for harm reduction strategies to address interpersonal stigma explicitly, as its reduction (and elimination) is integral to enhancing both the effectiveness and the acceptability of community-driven interventions. For instance, key informants from Treloar et al.'s (2021) study endorsed the interdependent notion of community and using peers as useful integrations for stigma reduction interventions across all levels of the socioecological model. By mitigating stigma, individuals are better positioned to engage in harm reduction practices without the burden of judgment from outside *and within* their community, thus creating a more supportive environment for managing health. At the health policy level, Ross et al. (2020) also discuss the importance of advancing research like the present study in informing effective and evidence-based drug policies.

Another key finding is that empathy is an important component of a prosocial moral agency. Empathy enables individuals to form meaningful connections and engage in social-building interactions that resist stigma narratives and promote a more supportive approach to health management that incorporates harm reduction and mutual pleasure. In this study, the capacity for empathy among participants was influenced by the impact of stigma, which either constrained or facilitated empathetic engagements. Therefore, enhancing empathy in intra-community interventions could lead to more effective and approaches to harm reduction. Harm reduction in the mainstream may solely emphasize educating individuals in performing risk reduction practices and self-efficacy based on their lifestyle. However, such efforts may not

necessarily contribute to destigmatization. One way forward is to look to community organizations and politically-engaged groups that approach harm reduction with a deeper political perspective; such bodies view it as a means to address the broader social, economic, racial, and political disparities that contribute to 'risk' and 'harm' (Roe, 2005). As previous research shows, the use of stigma as a method of social control or conformity or behavior deterrent is not only ineffective but also causes more harm than good. In SDU contexts, the heavy stigma associated with illicit drug use within a sexual setting would likely only worsen harms at the individual and social levels rather than alleviate them. Finding effective methods to lessen stigma within the U.S. remains a major challenge (Des Jarlais, 2017).

The concept of agency in the social sciences has evolved with a significant shift from Marxist perspectives that emphasized collective forces to a neoliberal view that champions individual moral capacity and self-responsibility (Bordonaro & Payne, 2012). Such a view aligns with the broader neoliberal ideology prevalent in modern governance and economic systems, which celebrates the autonomous, responsible individual as central to societal progress (Bordonaro & Payne, 2012). This ideological shift suggests that each person is fundamentally capable of and responsible for their own actions, which includes moral action. Alternatively, a CPH approach to moral action diverges from the mainstream focus on individual responsibility by emphasizing the importance of centering counterpublic communities and collective experiences in harm reduction efforts. This approach challenges the notion that individuals in marginalized communities are solely responsible for their actions, instead highlighting how systemic and structural factors like stigma shape health practices. Harm reduction strategies can be improved to include a broader range of community-specific needs and values that resist the mainstream notion of the self-autonomous and -responsible individual. Success will largely depend on how well contextual elements are integrated during the planning and evaluation phases, including but not limited to factors such as local law enforcement support, community leadership, and prevailing social, political, and religious norms (Ogborne & Birchmore-Timney, 1999). For drug use, this approach not only addresses the physical aspects but also tackles the social stigmas that hinder effective engagement with public health or healthcare services. The study findings support the integration of empathic practice and moral action through social connection in harm reduction programming. By teaching and promoting empathy and moral agency, harm reduction strategies can become more effective and equitable, ultimately contributing to better health outcomes for all individuals involved in SDU.

Strengths and limitations

Several limitations must be acknowledged for the study. The sample size of 18 participants limits the generalizability of the findings. While in-depth qualitative research does not aim for generalizability, the insights might be specific to the sample and not fully represent the diversity within the SGD community or those engaging in SDU, as most of the participants identified as men and white and living within the U.S. With a small sample, reaching data saturation was challenging, potentially leaving some themes underexplored. Moreover, the use of a single coder for transcript analysis ensures consistency but may introduce subjectivity and bias. Relying on one perspective might limit the diversity of interpretations. Including an

additional coder could have provided multiple viewpoints, enriching the analysis and offering a more nuanced understanding. This limits the comprehensiveness of the analysis and the development of fully formed conclusions about SDU phenomena. Recruiting participants through a convenience and purposeful sampling strategy from online platforms may introduce selection bias and reporting bias, as individuals with access to such technology might have more permissive attitudes or behaviors regarding SDU, harm reduction practices, and stigma navigation. This could potentially skew the results towards more technologically savvy, socially connected, and possibly more open or engaged participants, thereby limiting the generalizability of the findings to all SGD individuals engaged in SDU. Participants who are active on such platforms and willing to engage in research might also not fully represent the wider population of SGD individuals using drugs in sexual contexts. In this case for recruitment, the online apps are mainly geared towards urban, male-identifying gay individuals and less so heterosexual transgender women, while the website is open to everyone. The researcher's involvement in recruiting and interacting with participants could introduce bias in how data is collected, interpreted, and presented, potentially influencing the framing and understanding of participant responses. Alternative strategies including third-party recruiters or anonymous online surveys could have minimized researcher bias by reducing direct interaction. However, these methods were ruled out as they might limit the depth of qualitative insights and hinder the establishment of rapport necessary for discussing sensitive topics. While the flexible approach of modified grounded theory is a strength, it can also be a limitation. The lack of strict adherence to traditional grounded theory procedures might lead to inconsistencies in data analysis and interpretation. This flexibility can also lead to subjective interpretations that are influenced by the researcher's perspectives or biases.

The study strengths include utilizing in-depth interviews to provide a nuanced understanding of the experiences and perspectives of SGD individuals engaged in SDU. This method allowed for detailed exploration of complex themes and social phenomena like moral agency, stigma, and empathy in a way that surveys or quantitative approaches might not capture. Recruiting participants via online hookup platforms ensured access to a community deeply engaged with the research topic. This strategy likely increased the relevance and applicability of the findings to similar contexts, directly engaging with the population most affected by the issues under study. The researcher's active involvement in recruiting participants through their user profile potentially increased trust and rapport with participants, which may have led to more open and honest discussions. Employing a modified grounded theory approach allowed for a flexible, iterative analysis of the data, which could adapt to emerging themes and insights. This adapted procedural approach enabled the researcher to remain open to new concepts and connections between themes while enhancing the depth of the analysis.

Implications for future research

Future research should explore the intersections of identity, stigma, and agency within diverse SDU contexts to generalize study findings across other SGD populations. Studies could examine the long-term outcomes of community-engaged harm reduction strategies to assess

their efficacy in reducing stigma and promoting health. Moreover, comparative studies across different geographic and cultural settings could provide a broader understanding of how stigma and empathy interact in various communities. The use and reliance of online mobile technology to find social connection also frames how SDU should be studied in relation to HIV/STI-related risks (Holmes et al., 2023; Patten et al., 2020; Race, 2015). Digital environments may mediate interpersonal interactions and community engagement, and these linkages need to be addressed when developing and implementing effective harm reduction interventions. Investigating these aspects through a CPH framework could yield deeper insights into the mechanisms through which stigma is navigated and resisted by counterpublics and how these processes impact health behaviors and outcomes. However, standardizing harm reduction initiatives presents challenges when tailoring interventions to meet individual needs, complicating the consistency of outcomes. To ensure reliable and uniform results, assessments of harm would have to adhere to criteria that are reasonable, objective, replicable, and broadly accepted (Hilton et al., 2001). By conceiving harm reduction as a moral obligation to fundamentally improve living conditions and societal structures of the marginalized (Roe, 2005), the integration of empathy as a skill that could be taught and developed in interpersonal settings – affective as opposed to cognitive empathy – in harm reduction research deserves more attention. A CPH framework is aligned with this reframing of harm reduction as affective empathy recognizes the life experiences of others while avoiding superficial stereotypes (Aaltola, 2014), all of which dismantle barriers to social connection brought forth by stigma.

Certain observations emerged from the study that point to the complexities of reducing stigma's impact. First, the incongruous nature of resistance reveals efforts to dismantle negative stereotypes while inadvertently perpetuating those same stereotypes through one's actions and perceptions. This contradiction points to the nuanced dynamics where participants assert their agency and responsibility in managing their SDU, yet in doing so, they sometimes draw a sharp contrast between themselves as "responsible" users and others who are deemed "irresponsible." This moral-based differentiation exacerbates the stigma against those struggling with problematic drug use and worse life circumstances by framing them as failures in self-control. Furthermore, the study highlights a division within the community regarding harm reduction approaches. Some participants viewed these strategies as enabling problematic use, suggesting a need for a more nuanced discussion about the role and effectiveness of harm reduction. These conflicting views underscore the necessity for more research that explores how personal experiences and societal perceptions influence stigmatization processes and harm reduction practices through a CPH lens. Leng et al. (2020) provide a pertinent framework by demonstrating how traits like moral identity and social self-efficacy are crucial for enhancing prosocial behaviors and could be instrumental in promoting more effective harm reduction strategies that consider individual and collective capacities for empathy and moral action. Such research should aim to understand better the implications of empowering individuals in taking moral action within their community, the protective strategies used to navigate personal and social risks, and the complex role of empathy in driving social connection. Findings from future research could inform the design of more effective interventions that address the diverse needs and experiences of those engaged in SDU and promote a more empathetic and understanding approach to addressing stigma and supporting community health.

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Conclusion

This dissertation synthesizes the insights gained from a comprehensive examination of CPH as a framework for addressing health related to SDU among SGD populations in the HIV/STI prevention context. Through an original narrative review, a CPH framework was developed and emphasizes the inclusion of marginalized voices and the integration of culturally sensitive, community-specific approaches into public health practices. This foundational framework then informed the direction of two subsequent empirical qualitative studies, which investigated practices and experiences within SDU among SGD individuals. These studies focused on describing harm reduction practices and exploring the moral actions and decision-making processes of individuals engaged in SDU. The findings underscore the importance of a CPH approach in advocating for more inclusive and ethical interventions that respect and address the complex realities of SGD communities. Thus, this work contributes to "bearing witness to the challenges these groups face [and] using the tools at our disposal to give voice to groups that frequently have few outlets to do so themselves" (Galea & Vaughan, 2019, p. 1328)

In paper 1, the narrative review of the CPH literature offers a nuanced understanding of marginalized communities' health experiences and the systemic barriers they face. Synthesizing findings across 51 studies, the literature reveals increasing publication frequency with diverse methodologies highlighting the crucial need for nuanced and context-sensitive approaches in public health research. A newly developed theoretical framework outlines four key tenets of CPH – centering counterpublic voices, local knowledge and practices, embodied practices and corporeal learning, and resistance to normalizing effects – each encompassing a distinct focus or characteristic of CPH in the research context of marginalized populations. Applications of CPH span various settings, underscoring its adaptability and relevance in addressing specific health inequities. Overall, the integration of a CPH-guided praxis into public health research promises a transformative impact, urging a reevaluation of mainstream perspectives to better serve all community segments and setting a robust agenda for future research in public health.

In paper 2, study findings emphasize the multifaceted nature of harm reduction strategies employed by individuals engaged in SDU and highlight the critical role of digital platforms like online hookup apps in initiating and navigating these practices. The first step of harm reduction, digital screening, involves using online hookup apps to assess potential partners' compatibility and safety and emphasizes the importance of communication about health statuses and preferences. The second step, in-person assessment, sees these digital dialogues extend into physical interactions where direct measures, such as negotiating safe sex practices and the use of biomedical interventions like PrEP, are crucial. The study underscores the potential of a CPH perspective to enrich harm reduction approaches and further advocates for policies that recognize and support the nuanced strategies within queer communities. It also acknowledges the challenges of perpetuation of negative stereotypes that are perceived to be a part of harm reduction and the need for broader engagement across other SGD populations.

In paper 3, study findings reveal the complex interplay of moral agency, empathy, and stigma among SGD individuals engaging in SDU. Participants demonstrated varying levels of

responsibility and moral considerations, both influenced by stigma and personal experiences and ranged from personal health management to collective responsibility towards partners. Internalized and externalized stigma shaped these dynamics and impacted how individuals navigate their identities and community interactions. Empathy emerged as a salient factor in facilitating supportive relationships and resisting stigma with participants expressing empathy in diverse ways. Notably, some participants resisted mainstream narratives by adopting harm reduction practices aligned with community values, while other participants conformed to stigmatizing norms to mitigate effects of stigma at the individual level only. These findings underscore the need for harm reduction strategies that emphasize empathy and collective responsibility, as well as promoting prosocial intra-community interactions.

The implications of this dissertation for public health practice are significant, particularly in advancing a CPH approach. By synthesizing the CPH literature and emphasizing the inclusion of counterpublic voices, this research advocates for a more equitable public health framework that respects and utilizes local knowledge systems. Study-specific findings underscore the importance of integrating harm reduction strategies that acknowledge the diverse experiences and needs of SGD populations and moving beyond traditional models that may stigmatize or marginalize these groups. The dissertation also highlights the role of empathy and moral agency in health practices, calling for the consideration of approaches that create supportive environments free from stigma. In due course, this work contributes to a more inclusive and culturally sensitive public health practice, thereby pushing harm reduction further and encouraging participatory approaches in designing and evaluating harm reduction efforts.

A CPH paradigm offers a transformative potential to address the limitations inherent in mainstream public health approaches, which can be characterized by a theoretical and a practical commitment to a rationalist scientific approach (Morrison & Lilford, 2001). This focus can overlook non-empirical aspects such as social structures, psychological experiences, and historical contexts (Price, 2014). CPH, by integrating counter-hegemonic knowledge from excluded social identities, challenges these limitations by promoting a more ethical and multidisciplinary approach that acknowledges the diverse and fragmented nature of modern biomedicine. It emphasizes the need for understanding health phenomena within open systems, incorporating diverse epistemic challenges, and recognizing the validity of CPH principles. In advocating for a CPH framework, this dissertation aligns with Galea's (2023) call for a balanced public health approach that integrates both moral and empirical considerations.

While stigma has been used to promote health, albeit now in more implicit ways, this framing can lead to social withdrawal and reduced wellbeing; therefore, it is crucial to avoid moralizing tones in public health messaging (Galea, 2023). CPH's role in addressing mainstream public health is in its incorporation of voices and experiences from marginalized counterpublics. By decentralizing health discourse and narratives, CPH challenges the dominance of traditional public health institutions and advocates for a more democratic dissemination of health information. This approach not only broadens the scope of scientific inquiry but also seeks to reframe or reinterpret existing evidence through the lens of those traditionally excluded from the mainstream. However, the challenge for potential oversimplification and co-optation of

CPH principles as it gains mainstream traction remains. For instance, Einstein (2007) has noted the potential for harm reduction to be co-opted into current harm *production* processes and systems that uphold disenfranchisement and inequity. The risk of misalignment between CPH initiatives and established health narratives underscores the need for careful integration of CPH principles. As public health continues to evolve, embracing a CPH paradigm offers a path towards more ethical, equitable, and comprehensive health interventions, ensuring that the diverse realities of all populations are recognized and addressed.

This dissertation underscores the need for further research into the empirical application, contextualization, and refinement of CPH for public health research. Future studies could investigate how a CPH framework can be adapted to address the unique health needs across other marginalized populations and health behaviors/practices. There is a critical need to expand research methodologies to include mixed-methods approaches that combine quantitative and qualitative data to ensure a more comprehensive understanding of the health behaviors and needs of these populations. The role of digital technologies and online spaces in shaping health behaviors and counterdiscourses also warrants examination. Future research should continue to explore the intersections of identity, stigma, and moral agency within different SDU contexts and assess how these factors influence health outcomes and harm reduction practices. Comparative studies across various cultural and geographic settings can provide broader insights into how different cultural communities navigate stigma and engage in harm reduction. It is essential to investigate the efficacy of community-engaged harm reduction strategies, particularly in mitigating stigma and promoting empathy and peer-based social support. Lastly, future research should also consider how a CPH framework interacts with and improves upon mainstream models of public health efforts, including current harm reduction efforts. Such work will contribute to CPH and its credence to inform more inclusive and effective health policies and interventions. As Race warns, “Paradoxically, public morality makes [counterpublic health] initiatives, which are most likely to connect with the relevant groups in effective ways, most at risk of political intervention” (Hoppe, 2010).

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Appendix A: A history of hegemony and marginalization in public health

In the Western world, our understanding of health and lifestyle has historically been ruled by a dominant reductionist view of individual behavior (Adams et al., 1994) in contrast to a perspective that acknowledges social and structural determinants. This perspective suggests that society is bound by established institutions that cater to both personal and communal needs, reinforcing existing social norms and structures (Adams et al., 1994). This idea can be understood through the lens of critical theory and can be likened to the concepts of public and counterpublic narratives. Notwithstanding our seemingly democratic choice in our healthcare, the cliché of "making the healthy choice the easy choice" not only entails a preconceived notion of how things should be, but it also implies the influence of a medical public health hegemony that defines the right or correct type of care and expected health behavior backed by objective and scientific knowledge (Adams et al., 1994, p. 19; Elling, 1994). As it is known, such choices around our health are not readily black and white as the above suggests. For example, health promotion specialists in the UK reported feeling torn between government policy and liberal democracy, while simultaneously facing everyday politics of local organizations and personalities (Adams et al., 1994). Indeed, public health as a state entity is often driven by governmental or large institutional agendas, one that attempts to represent all or the majority of its citizens. Society, as empirical evidence shows, suffers from an unequal distribution of power and resources that results in the oppression of certain people or subordinated groups (Adams et al., 1994). In this day and age, how then may we dismantle these unequal power dynamics and reallocate resources, and ultimately transform social life for better health for all?

In the quest for hegemony, marginalization emerges as a resulting process where margins convey the physical (concrete) and psychological (perceived) constructs around which marginalized people are consigned, or in other words, "they are the boundary-determining aspects of persons, social networks, communities, and environments" (Baah et al., 2019; Vasas, 2005, p. 196). To promote ideal community health, it is crucial that public health studies understand marginalized groups from within these margins—viewpoints often overshadowed by society's mainstream that define and perpetuate these margins (Vasas, 2005). How is it that marginalized people are internally discussing, responding, and interpreting their subordinate position in relation to the mainstream public? This positioning can be juxtaposed to Nancy Fraser's notion of *counterpublic* spheres, which typify how subordinated groups respond to their marginalization (Bell & Aggleton, 2012; N. Fraser, 1990). These discursive spaces allow these groups to "invent and circulate counter-discourses to formulate oppositional interpretations of their identities, interests and needs"(Bell & Aggleton, 2012, p. 386; N. Fraser, 1990). As Race puts simply, "A counterpublic has a critical or oppositional relation to the public," and so counterpublics have the potential to emancipate by forming alternative opportunities for critical awareness, struggle and resistance (Bell & Aggleton, 2012; Hoppe, 2010). For the purpose of this narrative review, understanding and engaging with these counterpublic spheres is fundamental to public health efforts aiming to genuinely address systemic issues contributing to marginalization and its detrimental impact on health.

Appendix B: Distinguishing 'scientific' or 'defensive' counterpublics

The concept of 'counterpublics' has been initially used to refer to groups that have been marginalized in the traditional sense marked by race, socioeconomic status, gender, or sexuality and thereby as *subaltern* – a population that does not hold hegemonic status (Bradshaw, 2022; Bricker, 2019; N. Fraser, 1990). More recent theories, however, define counterpublics primarily through participants' awareness and articulation of their exclusion from broader public discourse, emphasizing "alternative discourse practices and norms" over mere subordination (Holm, 2019). Two counterpublics to note are *scientific counterpublics* (Bradshaw, 2022; Bricker, 2019; Hess, 2011) and *defensive counterpublics* (Jackson & Kreiss, 2023). This acknowledges the counterpublic formations of the *non-subaltern* like that of a *scientific counterpublic*, which can be understood as "a type of mobilized public opinion that is based on subordinate social positions that have emerged to contest 'official publics'" in science discourse, where the latter is one composed by the political, economic, or even intellectual and civil society elites (Hess, 2011, p. 629). Likewise, the formation of a *defensive counterpublic* relies on exclusionary ideologies like right-wing 'alternative media' that may very well uphold the logics of social structural power in that they are "defensive when they engage in social or symbolic actions intended to preserve unequal relations between or within groups," equating differing positions that are counter to dominant discourse with social structurally-defined counterpublics (Jackson & Kreiss, 2023).

According to Fraser, subaltern counterpublics specifically face exclusion or marginalization due to their subordinated social positions (i.e., "groups that have been structurally disadvantaged historically in relation to more privileged social groups") (Holm, 2019). Thus, non-subaltern counterpublics are those whose marginalization is not rooted in a structurally subordinated social status; however, they can still perceive to be excluded from dominant publics based on their social position (Holm, 2019). These extensions of counterpublic sphere theory beyond the subaltern then calls for a distinction in the context of counterpublic health (CPH) and addressing the health of marginalized populations. In Figure 7 below, I adapt Holm's (2019) framework to map two dimensions that allow for analyzing the reproduction of privilege in the context of counterpublic dynamics: social (non-subaltern vs. subaltern) and political (antidemocratic and/or antiegalitarian vs. democratic and egalitarian) positions. While not intended to serve as a binaristic or immutable constitution of what is a counterpublic, this approach substantiates the focus on marginalized populations in CPH, that is, those populations in the subaltern and democratic/egalitarian quadrant (i.e., lower-right).

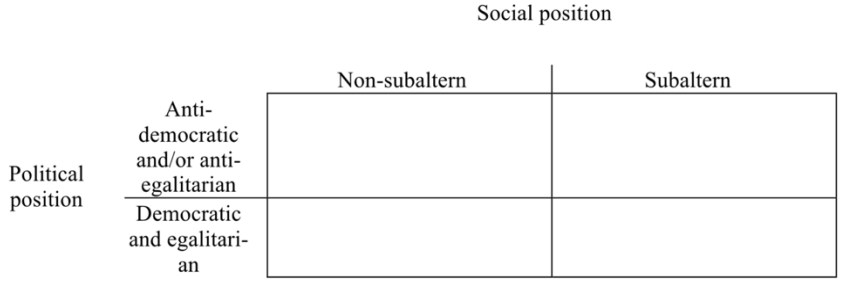


Figure 7: Two dimensions: Counterpublics' social position and political position

Table 1. Counterpublic health studies and gray literature, by ascending publication year and author last name, 2003-2023 (n=51)

Literature	**Research design** (N/A = not applicable)			**Main takeaways**	
Geographical region and keywords (if available)	*Objectives*	*Sample and methods*	*Process of analysis*	*Usage of counterpublic health theory or implementation*	*Selected findings or results*
(Race, 2003) Australia	Evaluate research on gay men's sexual behaviors in relation to the emergence of medical technologies for HIV/AIDS prevention	● Review of studies, including review papers and findings from Australian studies and research conducted in other industrialized countries ● Purposive sampling ● Between early 1990s-early 2000s	● Framework based on the concept of ethics, "understood as practical techniques adopted for the achievement of certain implicit and explicit goals" (Foucault, 2012)[24]	● Key article introducing CPH in academic circles ● Highlights collective interaction in health frame creation and its evaluation ● Advocates for prevention ethics where lived experience meets medical knowledge and acknowledges challenges in specific health promotion methods. ● Calls attention to the quality and availability of public contexts for articulating medical knowledge with embodied and lived experience	● Emphasis on ethics ● Enabling gay men in conversation with health authorities to be responsible for evaluating risk has been effective ● Traditional publics predicated on codes (style, language, address, affect, and expression) and anticipates privileging a social base and promoting embodied ways of life as universal ● Needing to justify health education activities to wider publics or manage the risk of their pedagogies emerging in unsympathetic contexts, highlighting how far public institutions can openly pursue 'counterpublic healths'
(Race, 2009)[25] Book chapter Australia	Explore HIV prevention's successes, emphasizing the distinction between embodied ethics and	N/A	N/A	● Counterpublics redefine community: they are expansive, face resistance, and promote alternative norms of interaction ● Counterpublics' discourse offers unique perspectives, as seen in	● Illuminates the symbolic role that the illicit drug user fulfills for the neoliberal state, ● Demonstrates how the state's performance of moral sovereignty around substances

[24] Citations within *Research Design* or *Main Takeaways* columns may be derived from the respective literature and are not necessarily in this review's bibliography unless the work cited is already included in the review.

[25] Race discusses this book as well as his earlier 2003 article more in depth in an interview with Trevor Hoppe (2010).

	normative morality to understand pleasure-focused health strategies for at-risk groups			queer culture's approach to intimacy ● *Counterpublic theory conceives some of the broad conditions and obstacles to the sort of corporeal learning that has been so important in the field of HIV.*[26] ● *At a time when these dimensions are systematically obscured, it suggests a frame for the practice of pleasure-positive harm reduction. Perhaps we could call it, CPH?*	designated "illicit" bears little relation to the actual dangers of drug consumption and how it exacerbates those dangers[27]
(Bell & Aggleton, 2012) Australia Keywords: young people; sexual health; HIV prevention; counterpublic health; Uganda	Identify how non-governmental-led HIV prevention and sexual programs could be improved among young people	● Uganda ● Focus groups (n=52) ● Contextual interviews (n=82) ● In-depth interviews with young women and men aged 11-24 years old (n=117) ● Multiple ethnographic, qualitative	● Thematic 'open' and 'axial' coding (Flowerdew & Martin, 2013) ● 'Open' to increase familiarity and record theoretical memos and 'axial' to describe process of linking local codes into themes and sub-themes	● Challenges views of transgressional acts, valuing all practices and pleasures ● Uses the counterpublic to discover alternative engagement: 1. Encourage dialogue to challenge moral discourses 2. Create spaces for expression of health needs ● *'Counterpublic health', a term used to think about those areas*	● Young people in rural Uganda become involved in secretive sexual relationships due to inhibitive mainstream influences ● HIV prevention and sexual health programming does not normalize perceptions of young people's sexual behavior ● The ability to decide what one wants to talk about without the risk of disapproval or gossip may provide an important CPH opportunity

[26] *Italicized text* within the table indicates a direct quote from the respective authors and literature.

[27] "Many of us who have been active on the Sydney gay scene in the last ten years know people whose lives have gone off the rails through the use of crystal. By this I mean losing jobs, severing relations, getting evicted, or suffering physically. Sometimes HIV transmission is part of this mix, sometimes not. I single out crystal here because in my experience it is associated with the most marked effects, but the argument could be applied to other substances and situations as well. And yet for every person who has run into trouble, each of us can probably also point to a number of other friends or acquaintances who are able to use the same substances sporadically, pleasurably, and unproblematically over the course of years. Quite simply, it's impossible to think drugs or their effects without also thinking practices and relations. The issue is further complicated by questions of value. For as soon as one defines drug use as problematic (or not), it raises the difficult question of what sort of problem, for whom, and who gets to say so?" (pg. 240)

		techniques: participant observation, focus groups, key-informant interviews, and other participatory techniques with young people ● Purposive sampling ● Between 2000-2005	● Findings, interpretations, and inferences are cross-checked against each other via 'triangulation' (Hammersley & Atkinson, 2007) ● Emic, not etic	*of public health in which mainstream investment in a moral ideology compromises the ability to respond effectively to public health needs (Race 2010).*	● Three ways in which organizations can implement a more grassroots approach: 1. Help young people find safe spaces to express their views about sexuality and sexual health 2. Work with adults to ensure they can participate comfortably in such discussions 3. Clearer focus on harm reduction rather than on risk elimination
(Barratt et al., 2014) Australia Keywords: Discourses, Counterpublic health, Health resistance, Internet, Ecstasy, para-methoxyamphetamine, Health promotion, Harm reduction, Pleasure	Analyze online reactions to a woman's death from PMA in Australia and examine drug-use discourses on internet forums	● Online ● Drug-user discussions across interconnected online forums (n=40) ● Case-study approach ● Virtual, multi-sited ethnography ● Timebound and purposive sampling ● 2007	● Mixed methods guided by a qualitative, inductive approach ● Discourse analysis in which discussions are considered 'talk in action,' (Potter et al., 1987) asking what the speaker is achieving through choosing particular words and expressions in that specific context ● Foucauldian perspective to identify how participants within the data are positioned	● Peer interventions based on embodied ethics assuming the drug-using subject seeks pleasure ● Understands drug-user subjectivities that do not fit with pathology paradigm or harm reduction discourse that assumes a risk-avoidant subject ● Proposes political implications in online public communication if "drugs-are-fun" discourse is too openly approved from 'contest' against harm reduction discourse (Barratt et al., 2012) ● *Harm reduction functions as a necessary counter to the 'black/white' 'bad/good' rhetoric which has been shown to fail to work; but it also functions, from a counterpublic policy perspective, in a similar fashion*	● Three intersecting discourses around ecstasy: 1. All prohibited drugs are dangerous 2. Reducing the risks associated with adulterated ecstasy 3. 'PMA sounds fun' ● Online settings are not immune to standard social processes of meaning making and identity construction ● Counterpublic discourse more likely to circulate in limited spaces due to resistance ● Health promotion campaigns clash with public moral acceptability when values are not seen as acceptable by the public
8/13/2024 10:19:00 PM United States	Examine the portrayal of "bug chasing" in social science literature and its	● Social scientific articles responding to the "small and controversial	● Containment rhetoric theory (M. Smith, 2010)	● [No direct reference to CPH] ● Counterpublics, like bug chasers, are marginalized groups often excluded from wider discourse	● Three mechanisms constituting rhetorical containment for this counterpublic: 1. Employing the bystander gaze

Keywords: Bug chasing, containment, counterpublics, HIV/AIDS, prevention, public health	implications for public health discourse	counterpublic" of bug chasers (n=8) ● Purposive sampling ● Between late 1990s-early 2010s	● Rhetorical/textual analysis	and face challenges like website shutdowns ● Their presence and narratives, primarily textual, influence broader public perceptions and understanding. ● Health resistance rhetoric highlights the liminal status of certain health publics, indicating larger systemic exclusions ● *"Containment rhetoric reinforces the values of the imaginers and prevents consideration of other points of view that might enrich and complicate those values" (Smith, 2010, 143)*	2. Emphasizing idealistic naivete 3. Focusing on the inconceivable sacrifice of bug chasing ● *Three specific rhetorical strategies that scholars can use to temper with the characteristically "violent" nature of containment practices often prompted by behaviors deemed worrisome: practice rhetorical listening, foreground contextual exigencies, and instigate text-based incongruity.*
(Wright, 2014) Australia Keywords: Education, place, health, facism, beyond, body	Assess if health education, especially from Australia, New Zealand, and the UK, can function outside of fascism or neoliberalism using bio-pedagogies and Foucault's biopolitics with with Lusted's (1986) notion of pedagogy	N/A	N/A	● Current health pedagogies must transcend individualistic and normative paradigms, centering instead the holistic lived experiences of youth ● The CPH framework interrogates traditional public health spheres, positing that entrenched moral ideologies hinder efficacious health responses ● Emphasizing dialogic encounters with youth can subvert prevailing health discourses, promoting a more nuanced understanding of their health narratives ● An inclusive, democratic approach to health curriculum development, foregrounding student agency, is paramount for genuine health amelioration in educational institutions	● Provides a socio-cultural and critical approach to health education, drawing together international experts in the field of health and education who deconstruct contemporary discourses and practices and re-imagining a health education that connects with young people ● Health education is ubiquitous and affects everyone, from before birth to adulthood, using a range of rational and affective devices to enhance compliance ● The effectiveness of health education programs is questionable when there is dissonance between what happens in the name of health education and young people's worlds

(Duff & Moore, 2015) Australia Keywords: counterpublic health, drug treatment, Melbourne, methamphetamine, public health, qualitative research	Investigate how notions of the 'public' are conceived, marshalled, and enacted in drug-treatment responses to meth use	● Australia ● n=46 (31 meth consumers and 15 service providers) ● Purposive sampling ● In-depth interviews during ethnographic component of another mixed-methods study ● Dataset integrated for mixed-methods sociological study (Woolley, 2009) ● 2010	● Situational analysis via grounded theory ● Interview transcript analysis relying on open, axial and selective coding (A. Clarke, 2005)	● Advocates for an adaptive, nonjudgmental stance towards drug use, foregrounding the nuanced lived experiences of counterpublic communities ● Health, within counterpublics, emerges as a fluid construct, deeply enmeshed with inherent struggles and subjugations ● CPH necessitates re-envisioning healthcare strategies for drug users, centering their unique socio-cultural contexts and needs.	● Local drug services were modeled on public health principles with their pragmatic assumptions ● Service providers reported being bound by their agency's funding agreements and its broader philosophies of care ● Service providers emphasize the need for "respect" and "understanding" in order to "empower" individuals to "take control of their own lives". ● They argue that services need to recognize that people often turn to drugs because of socially unjust outcomes in their lives
(Van Hout & Hearne, 2015) Ireland Keywords: opium tincture, laudanum, netnography, Internet, oral opiate solution	Examine online user insights on sourcing, influences, home production of laudanum, opium tincture recipes, and consumption habits	● Online ● Drug users participating in several well-known drug fora ● "Netnographic" approach[28] ● Purposive sampling ● Websites containing forum activity (n=6) and discussion threads (n=75) ● Time period unclear	● Empirical Phenomenological Psychological protocols derived from Husserl's (1970) phenomenology theory and has strong similarities to principles in the interpretation of meaning of lived phenomena (Hjelmblink et al., 2007)	● Public health sectors can be hampered by entrenched moral ideologies, diminishing their efficacy in addressing actual needs ● Pleasure serves as a conduit for the emergence of shared safety protocols, not their contradiction ● Articulated by Race (2008): *Areas of public health where investment in particular moral ideologies compromises the ability to respond effectively to public health needs.*	● Users discussed the preparation of opium tincture recipes and use of authentic storage bottles to boost nostalgia ● Participants appeared well versed in kitchen chemistry processes, such as type and amount of alcohol used, use of additives to promote palatability and intoxication effect, homogenization of poppy seeds, and double extraction using opium tincture ● Lack of detail available on intoxication experiences, with tentative dosage advised

[28] The study of cultures and online communities through computer-mediated communications

(Le Talec & Linard, 2015) [French] France Keywords: men, homosexuality, sexual practices, sexual pleasure, bareback, HIV-infection, hepatitis C, drug use, medicine, treatments [English]	Examine the consumption of psychoactive and performance products related to the sexuality of HIV-positive gay men using qualitative data from the Hepaig survey	● France ● Gay men who participated in the Hepaig study ranged in age from 33 to 58 and almost all resided in urban areas (n=31) ● Purposive sampling ● Two-step interview process ● Between October 2006 and March 2008	● Biographical or narrative analysis	● Interventions must be based on respect for individuals within their specific contexts ● Cites Kane Race's concept of "counterpublic health," which is based on the observation of "collective strategies," contrasting with interventions that rely on "moral conduct" or "health injunctions," which are deemed less effective ● Traditional public health approaches may not resonate with men whose behavior is already guided by a complex set of constraints, judgments, and values ● Advocates for a more nuanced, context-specific approach to health interventions	● These men, well integrated socially, "evolve in two moral universes": that "of the daily responsibilities of normalized individuals" and that of a sexuality of escape "whose normative prescriptions relating to sex, gender and HIV are deemed less relevant and set aside" (Race, 2009, p. 173) ● The causality linking "drug use" and "sexual risk-taking" turns out to be secondary, compared to the main objective of pleasure and reassuring sociability (Rowe and Dowsett, 2008; Holt, 2011) ● For these men, it is the mode of sexual interaction between individuals that constitutes the main risk, and not that of consuming psychoactive substances (knowing that this choice involves other risks of accidents and alteration of consciousness or alertness) ● They claim to manage their identity as "HIV-positive gays" without difficulty but refuse to endorse that of "drug addicts", resulting in limited knowledge of risk and harm reduction.
(Harris et al., 2015) United Kingdom Keywords: Treatment as prevention, Hepatitis C, PWID, Harm reduction, Enabling environments,	Outline the limitations of using Treatment as Prevention (TasP) approach for hepatitis C (HCV) and conditions in which it could be optimized	● Literature on HIV and HCV TasP, with qualitative HCV research (n=?) ● Focus on United States and England ● Purposive sampling ● Possibly between early 2000s-mid-2010s	● Unclear analytical framework ● Advocacy-based recommendation structure	● Draws distinctions between "social public health" (underscores the necessity to confront social barriers such as gender, poverty, and race, ensuring service structures cater effectively to their users) and "social CPH", emphasizing the adaptability of public health goals to varying publics.	● HCV TasP must work with harm reduction interventions while providing "a space for alternative rationalities as well as for social structural initiatives to resource and support community mobilization" ● PWID are interested in HCV treatment and have comparable adherence to other groups, and

Community engagement				• *A counterpublic health recognizes that public health goals, and the notions of health inscribed within them, do not speak to all 'publics'. This recognition – of alternative rationalities – enables a transformation of service structures to optimally meet the needs of those who use them (Duff & Moore, 2015)*	HCV TasP has potential to be an advocacy tool • HCV TasP is only realizable with enhanced harm reduction access, meaningful community engagement, and enabling environment interventions informed by needs and perspectives of PWID
(Johnson, 2015) Australia Keywords: first-time mothers; Internet use; intimate publics; experiential advice; health information-seeking	Compare face to face support and Internet use for women seeking information and advice during the transition to first-time motherhood	• Australia • Female middle class women (n=12) • Observed classes in a parent education center to recruit participants • Convenience sampling • In depth, semi structured interviews (n=22) • Between January-September 2012	• Analytic approach or framing unclear	• Virtual intimate mothering publics have potential to positively impact lay people's resistance to traditional medical authority using digital technologies such as online communities (Race, 2009) • Does not suggest that public and counterpublic discussions are mutually exclusive; two sides, which in this case are often medical (public) versus non-medical (counterpublic) advice, can be debated • Possibility for the Internet to allow self-reflexive, self-managed patients to slip between conventional medical advice and the patient role, and new, alternative or renegotiated forms of advice	• Women seek out alternative forms of expertise (specifically, non-medical expertise) and social support in the transition to first-time motherhood • Intimate mothering publics provide a space for women to 'test' or legitimize their new identity as a mother • Access to intimate mothering publics is motivated by a number of factors, including feelings of community or acceptance, the desire to be a good mother or parent, emotional support and the need for practical and experiential advice
(L. G. Alexandrescu, 2016) United Kingdom Keywords: Consumption; Counterpublic	Examine the shift from heroin to novel psychoactive substances (NPS) among injectors, exploring their counterpublic status	• Romania • Users, specialists in drug services or policy, and journalists (n=30) • Purposive sampling	• Content coded, structured, and interpreted though thematic analysis (V. Clarke & Braun, 2013)	• Marginalized groups cultivate 'lifeworlds' and counter discourses that contest prevailing medical norms due to systemic exclusions • Implementation of tactics like risk reduction, normative	• NPS and head shops that sold stimulant powders were initially understood as a way to escape "junk identities," but ultimately viewing injectors as obstructing collaborative goals of

health; Drug abjection; Injecting ATS use; New psychoactive substances; Normative embodiment	and escape from drug-related stigma	• Semi-structured interviews and in situ observations • Secondary dataset of unstructured interviews from drug policy experts, users, and a parent (n=20) • Between April and October 2012	• Limitations noted, including personal biases of the author as engaged (yet critically) harm-reduction supporter	embodiment, and stigma neutralization, adapting to marginalized groups' needs • Emphasizes the importance of recognizing counterpublics' self-developed risk-reducing "care practices and corporeal pedagogies"	rehabilitation and health restoration • Distance between moral and bodily hygiene pushed heroin/injector and NPS users apart, with the latter coming to be seen and see themselves as "flawed" consumers of health and "freedom" • NPS retail spaces could provide harm-reduction resources and rely on CPH strategies
(A. C. Farrugia, 2016) Doctoral thesis Australia	Analyze the portrayal of youth drug use in Australian drug education and its potential impact on harm reduction	• Corpus of drug education documents and social marketing campaigns aimed at young people, including school-based classroom resources and social marketing campaigns designed for public dissemination (n=63) • Timebound and purposive sampling • Between February 2013 and February 2015	• Assemblage theory • Deleuzian textual analysis looking at what texts "do" or their "pragmatic implications" for enacted realities • "What's the problem represented to be?" approach (Bacchi, 2009), where problems are enacted in the very interventions designed to address them	• *Relying on commonsense, unexamined normative assumptions about drug consumers, as peer pressure models do, health promotion and drug education works to constitute a skeptical health "counterpublic"* (Race, 2009). • *By failing to engage with and value local knowledge, drug education can constitute a skeptical public whose skepticism of the information about the dangers of drugs contained in drug education is, in part, constituted by health promotion messages and drug education reliance on rigid and singular truths* (Race, 2009).	• Australian drug education is more likely to contribute to drug-related harms in its enactment of decision-making and rationality, peer pressure and sociality, setting, space, and gender • *Drug education could begin to focus on a process of capacitation in which the goal is not specifically to delay onset or reduce use, but rather to increase young people's sensitivity to the plethora of forces active in each drug assemblage* • *Drug education could look to increasing young people's affective capacity or sensitivity to engage with forces in attempts to enact safe and pleasurable drug consumption and positive sociality more broadly*
(Gonçalves et al., 2016) Australia	Examine drug prevention forms and the role of "modes of attention" in harm	• Australia • Individuals who were involved in the ACON Rovers	• Analytic approach or framing unclear • Broadly a case study analysis	• Case study focusing on harm reduction strategies within a specific counterpublic, providing	• The Rovers contributed to ensuring parties with minimum of critical incidents and a

Keywords: harm reduction, party drugs, LGBTQ culture and politics, cultural studies, science and technology studies, embodiment	reduction, referencing Stengers' insights on attention dynamics	project (AIDS Council of New South Wales) (n=7) ● Purposive sampling ● Focus group ● Informal discussions with staff members ● Documents related to the project within organization and promotional materials aimed at LGBT communities ● Between 2014-2015	structured to discuss: 1. Historical emergence of the ACON program 2. Forms of knowledge it draws upon and mobilizes 3. Attention to affective relations between different actors in the party environment 4. Mechanisms of ACON project relied on to assess and reflect upon its work	valuable insights for advancing CPH frameworks ● Emphasizes the concept of "modes of attention" ('manner of participating' via understanding oneself as part of the party environment, immersed and implicated in the event's becoming) by drawing on one's unique access to party spaces and practices ● Underscores the significance of understanding and leveraging affective relations when implementing public health interventions in distinct settings	maximum degree of collective pleasure ● This success *might* be considered a good measure of public health effectiveness ● Concrete, reflexive procedures and feedback mechanisms allow iterative or ongoing evaluation and adaptation for success ● "Culture of care" or the tendency of looking after each other within the parties, for example, by being emotionally supportive, looking out for one's peers, and preventing others from getting to a vulnerable position is key
(L. Alexandrescu, 2017) United Kingdom Keywords: Stimulants, Injection, NPS, Spillage, Methadone, Transition	Connect novel psychoactive substance (NPS) use to broader socio-historical shifts, analyzing injection drugs users from heroin to amphetamine-type stimulants (ATS) amid rising HIV infections	● Romania ● Mostly male individuals aged early twenties to mid-thirties (n=30) ● Convenience and snowball sampling ● Interview and observational data collected mainly around a methadone clinic ● Between 2008-2013.	● Theoretical (initial theoretical assumptions) and constructionist thematic analysis (with more 'spontaneous' or grounded codes)	● Recognizes study group as an established "counterpublic" that implemented a "normalization" strategy in counterpublic venues ● Leverages legitimate commodities in regulated areas to reshape the identities of injecting NPS users, countering drug-related stigma ● Suggests that substitution programs targeting populations that do not manifest the health needs of a mainstream public presumed to be sober or 'clean' point to a wider biopolitics of addiction management, which attempts to reposition subjects into rational and productive lives	● Injecting drug users in Bucharest, Romania have shifted from heroin to powder-stimulants sold as NPS and could be understood as 'spillages' of space and time: ● IDUs 'spill' out of the disciplinary flows of methadone treatment in two ways: through reconfigured practices and rituals of injecting use, and through the phenomenological qualities of stimulants that seem to accelerate lived time and generalize desire
(A. Farrugia & Fraser, 2017) Australia	Analyze young Australian men's skepticism towards	● Australia ● Young men 16 to 20 years old (n=25)	● Thematic analysis based on:	● Highlights the complexity of counterpublics; divisions between publics and	● Young men in the study held deeply skeptical views about the drug information they received

Keywords: counterpublic health, drug education, health promotion, scepticism, young men	drug information from schools, campaigns, and public discourse	• Semi-structured, in-depth interviews • Convenience sampling • 2014	1. Irwin and Michael (relationship between science and society) (Alan & Mike, 2003) 2. Warner (theorization of publics and counterpublics) (2002) 3. Race (CPH) (2009)	counterpublics are partial and variable • This health counterpublic made explicit appeals to standard public health values: reason, scientific knowledge, and a measurable objective reality enacting the rationality that health promotion asks of them. • Desires for reliable, scientific information to guide them in their health practices • Race (2009: 157–160) notes: *CPH norms are not intrinsically freer or accepting than public ones. They work to shape subjectivity in certain ways just as mainstream publics do, and therefore have the potential to enact a certain violence upon the people that constitute them.*	in schools, health promotion campaigns and the media • While many of the young men can be seen as criticizing incomplete drug information, others' skepticism stemmed from a different source: drug education, health promotion, and media effacement of their concerns, bringing what is usually understood as personal and private into public consideration. • Three key themes on skepticism: 1. Skepticism about the accuracy of the claims made about drug risks and dangers 2. Skepticism about representations of people who use drugs 3. Skepticism about the motivations behind the health messages and drug policy in general
(Lancaster et al., 2017) Australia Keywords: Australia, Evidence-based policy, Consumer participation, Subjectivity, Drug policy, Poststructuralism	Examine the techniques and impacts of 'evidence-based policy' and 'consumer participation' in drug policy, focusing on the role of 'consumer' and the power dynamics of the dominant paradigm	• Australia • Policy makers, advocates, non-government organization representatives, consumer representatives, researchers and clinicians (n=41) • Semi-structured in-depth interviews • Purposive and snowball sampling • Time period unclear	• Adaptive coding (process of coding and reanalysis) • Subsequent identification of themes informed by close reading of the data and the theories outlined, using Foucault's concept of subjugated knowledges, the work of feminist theorists (Judith Butler and Carol	• Fraser et al. (2016) posit that publics are not pre-existing but are shaped and defined by policy, emerging as "collectivities of interest" • Challenges the traditional idea of consulting fixed public groups, promoting the exploration of evolving publics in policy processes • Warner suggests that the inherent instability of publics can support novel engagement methods, while Fraser et al. view this fluidity as power-driven discourse effects	• Consumers are made as 'different' and their interests (along with their apparent difference) understood to precede the policy process. • Drug policy processes restricted possibilities for imagining the multiple ways in which 'consumers' (and their interests) might be understood • The very processes which purport to engage people who use drugs in making decisions about policies governing their own health may also be partially shaping these subjectivities In a

			Bacchi), and work in the drug policy field regarding conceptualizations of emergent policy publics		social and political environment where policies and practices already constitute people who use drugs as irrational and illegitimate political subjects
(Harris et al., 2018) United Kingdom Keywords: AA amyloidosis, People who inject drugs, Kidney disease, Skin and soft tissue infections, Harm reduction, Mixed methods, Protocol	Assess the feasibility of amyloid A (AA) amyloidosis screening and treatment referral	• United Kingdom • People who inject drugs (PWID) • Study protocol: 1) systematic review; 2) survey development; 3) in-depth interviews and participant observation; 4) qualitative interviews; 5) resource development • Convenience sampling (n=varies) • See Harris et al. (2018) for more	• Multi-phase mixed methods approach • Descriptive statistics and logistic regression for phase 2 • Grounded theory for phases 3 &4 • Data triangulation or mixed methods interpretation after phases 3 & 4 • Participatory research paradigm	• Emphasizes the importance of corporeal learning in driving collective transformation among marginalized communities • Highlights the limitation of traditional public health objectives, asserting that they may not align with or address the unique needs of diverse 'publics' • Emphasizes a dual political and pragmatic strategy that aims to both recognize and bolster the ways people care for themselves, leveraging embodied practices to spread collective change	• 'Positive deviance', an approach reverse to 'incident cases', explores accounts of successful protection in high-risk situations in order to learn about the practices shaping avoidance of infection and resilience to risk • Dual focus on protection and risk enables investigation into successful skin and soft tissue infections self-care practices among PWID: crucial for informing the development of community acceptable and effective interventions • Focus on how care is cultivated and sustained in contexts of social and economic marginalization and the conditions under which care is constrained or becomes undone
(Race, 2018) Book chapter Australia	Reviews influential theorizations of queer counterpublics to recall their basic operating principles and study how they might be realized in the digital context	N/A	N/A	• CPH raises the significance of collective contexts of embodied reflexivity for those areas of public health characterized by a tension between public morality and the practical ethics of care devised by subordinate groups • Recognizes key examples of CPH like HIV prevention and harm reduction since they require the acknowledgement of embodied practices that are difficult to sensibly discuss in public sphere	• New opportunities for counterpublic activity will emerge as subjects conventionally identified as audiences and consumers of media become 'networked and mobilized', to adopt Mizuko Ito's characterization of networked publics (2008) • Argues that specialized forums that are removed from mainstream norms offer

					constructive discussions without sensationalizing sensitive topics ● Points out that such forums contribute to the positive emotional environments, allowing open discourse on demonized or taboo practices
(Rasmussen & Leahy, 2018) Book chapter Australia	Examines public debates on gender and sexuality in schools by focusing on the reception of the Safe Schools Coalition (SSC)	N/A	N/A	● CPH addresses sociopolitical conditions, focusing on stigmatized experiences of marginalized groups ● Examines the back-and-forth of adult and institutional concerns, policies, and practices, as they both govern and are influenced by youths' sexual subjectivities, identities, actions, and activism ● Continued emphasis on evaluation and standards of evidence associated with public health funding is part of what undermines CPH ● Calls for the consideration of "questions of history and cultural value, to embodied and engaged practices of interpretation and response" (Race 2009, 110)	● Warner highlights the relational construction and transformation of 'counterpublics' versus normative 'publics' ● Practices like chest binding and penis tucking face misinterpretation in wider debates, leading to misconceptions about their significance and value in identity formation ● Tensions arise from public funding of counterpublic sexuality education, with organizations such as SSC challenged to validate their methods amidst broader societal expectations and standards ● CPH practices are misunderstood when seen as an oppositional form of politics implying that young people are motivated by gender transgression
(Valente et al., 2018) Book chapter Portugal	Examine the development and impact of 'outreach teams' as a mode of intervention in drug use and compare the program's effectiveness between two cities	N/A	N/A	● Set of strategies put in place by peers who assume that drugs are consumed for the purpose of pleasure (Race, 2008) ● Work that CHECK!N undertakes with partygoers in Portugal can be seen within this framework of a type of CPH intervention, where partygoers work with other partygoers to promote	● Main argument against harm reduction is that it constructs a neoliberal vision of the drug-using subject that ignores the material constraints on practice that arise from inequitable social and political structures ● Emphasis on individual user's 'responsibility' on both their drug consumption and their

				their safety, their health but also their fun and pleasure ● Assumes that behaviors, like drug taking, are influenced by a variety of factors namely the subject's perceptions, the potential consequences, the ability to perform the behavior, the opinions of others and the context (Fishbein & Ajzen, 2010)	health assumes a fully agentic subject able to make rational choices and disregards structural factors that might cause individuals to find themselves in certain positions. ● If people designing, promoting, and implementing responses to drug use fail to acknowledge these different users' subjectivities towards drug use, then they might be condemning their programs to failure
(Bryant et al., 2019) Australia Keywords: Direct-acting antivirals, Hepatitis C, Side effects, Counterpublic health	Describe knowledge about and perceptions of direct-acting retroviral treatment (DAA) for HCV among people who inject drugs, and who were DAA treatment naïve	● Australia ● People who currently inject drugs (n=56) ● Purposive sampling ● Quantitative (survey) ● Qualitative (in-depth interviews) ● Between 2017-2018	● Mixed method design ● Survey data presented using descriptive statistics ● Interview data analyzed using an iterative thematic approach ● Themes synthesized and further developed using series of brief analytic documents in order to outline and organize themes (Bryant et al., 2019; Grbich, 1998)	● Acknowledges that marginalized individuals often have health needs and knowledges that conflict with traditional public health paradigms ● Challenges and examines underlying assumptions in health about who needs to be educated, spotlighting the link between power, knowledge, and identity ● Appreciates unique norms of embodied practice, even when these diverge from established public health principles ● Avoids a deficit view of marginalized individuals and crafts nuanced messages that acknowledge real concerns, aiming to build trust in medical institutions.	● Reasons for not taking up treatment were confidentiality, privacy, and potential side-effects ● Concerns about side effects of DAA treatments are commonplace among people who inject drugs, underpinned by a general distrust and suspicion of medical institutions and their technologies ● Addressing the issue of 'side effects' within the 'public' discourse of DAAs could better support the uptake of DAA treatments
(Hamilton, 2019) Doctoral thesis United Kingdom	Explores why users participate in risk-aware online communities (RAOCs) and the influence of these communities on	● Online ● Drug users engaged in forums, social media platforms, and websites for NPS-relation	● Mixed methods design ● Critical approach based on a social constructionist/cultural Marxist	● Offers an alternative discourse that moves away from the typical view of risk and pleasure concerning substance use (i.e. counter-hegemonic discourse)	● Knowledge production and social learning, or social pedagogy, was found to be a key practice taking place across forum ● Various levels of actors involved in process, from novel users to

	perceptions and usage of new psychoactive substances (NPS)	information (n=304) ● Surveys ● Semi-structured interviews (n=18) ● Purposive-convenience sampling ● Time period unclear	epistemology and ontology ● Both social constructionist and cultural Marxist theory are grouped under the umbrella term 'subcultural theory'	● Views harm reduction as a way to enhance pleasure while managing risks, but not all CPH views focus on harm reduction ● Some endorse risks or reject any concept of risk management or harm minimization and instead embrace or even celebrate risks (Barratt, Allen & Lenton, 2014)	those 'pioneering' users who seek to experiment both for their own pleasure, a form of 'frontiersmanship,' and be able to produce and accumulate knowledge for dissemination among risk-aware online communities ● Concrete social actions and practices produce demonstrable outcomes for safer ways to take psychoactive substances and novel psychoactive substances ● Knowledge gathering and production focused on two key categories of information used in combination: academic or scientific information and experiential knowledge
(Petersen et al., 2019) Denmark Keywords: Cognitive enhancement, substances, prescription stimulants, uncertainty, quali-quantitative methods, folk pharmacology	Use two datasets to explore and discuss the doubt and negative consequences that affect people using substances in the pursuit of enhancing cognition	● Online and United States ● Words from a study of an online discussion forum - Reddit.com (n=approximately 1,100,000) ● University students (n=20) ● Purposive sampling and self-selection ● Participant observation and in-depth interviews ● 2013	● Mixed methods study ● Quali-quantitative approach, combining digital text analytic tools with qualitative analysis and readings	● CPH involves sharing advice and insights from firsthand or close experiences in discussions ● This "citizen science" from shared experiences in discussion forums opposes the typical governmental stance on substance use usually pushes for abstinence or treatment ● Gives a unique insight into the sentiments of hard-to-reach groups and shows how they form knowledge and establish group principles	● Cognitive enhancement substances are used by a wide range of people ● Motivations for using cognitive enhancement substances are varied, including improving academic performance, increasing productivity, and enhancing physical performance ● Use of cognitive enhancement substances is associated with a range of unintended consequences, including physical and psychological health risks, social stigma, and legal issues
(Albury et al., 2020) Australia Keywords: Dating apps; news media;	Examine how popular media reporting positions dating and hookup app use as a 'social problem' that	● Online and Australia ● International news articles published	● Mixed methods media studies approach ● Thematic content analysis	● Showcases expertise in health information about modern tech and sexual practices and valuing the firsthand experiences of active users	● Popular media reporting positions dating and hookup app use as a 'social problem' that impacts on health and wellbeing

public health; sexual health; health promotion	impacts on health and wellbeing	within a 12-month period (n=6108) ● Government and non-government organizations, professionals in mental health, sexuality education, tertiary student support services, youth work group (n=20), and gender and sexual diverse 18-35-year-old app user group (n=?) ● Purposive and timebound sampling ● Between May 2017 and April 2018	● Inductive and deductive techniques	● Emphasizes understanding and using digital tools, drawing inspiration from popular digital news and entertainment. ● *Vernacular media have much to offer health promotion professionals and health educators who seek to develop culturally appropriate messaging in the context of what Race (2009) has termed 'counterpublic health'–that is, health messaging that actively engages with the pleasurable and at times playful aspects of dating and hooking up online (Race, 2009, pp. 159–160)*	● Vernacular pedagogies of app use, revealing app users' safety strategies, and their experiences of pleasure and playfulness, are featured in supportive discussions of safer app use within social news and lifestyle reporting ● Young people need information about safe sex practices that are 'presented in ways that are clearly relevant to their own experiences and interests'
(Bolton, 2020) Doctoral thesis Australia	Examines transgender masculine experiences to understand their relationship with testosterone as creative experiments in embodied identities beyond binary confines	● Australia ● Nonbinary and trans people using exogenous testosterone and trans/gender/sexual men or masculine people not using testosterone (n=30) ● Convenience and snowball sampling ● Author's experiences (vignettes) ● Qualitative interviews ● Auto-ethnography/-biography	● Science and technology studies approach ● Actor Network Theory	● CPH emerging from connecting medical systems with societal connections and cultural shifts ● Highlights how conservative and moralizing approaches to HIV/AIDS based on abstinence, monogamy and quarantine significantly affected trans people in the U.S. ● Delving into historical activism reveals that trans masculine counterpublics shaped modern trans identities, challenging the idea that legitimacy comes only from medical validation ● Warner emphasizes how counterpublics redefine gender and sexuality experiences	● Framing exogenous testosterone use as a creative rather than corrective practice has conceptual and practical advantages: 1. Enables us to situate the increased visibility of trans masculine gender practices in relation to broader cultural and historical changes surrounding the body, gender and medical activism 2. Intervenes in the politics of ressentiment associated with the 'wrong body narrative' (WBN) and discourses of gender dysphoria that trans scholars have begun to discuss 3. Enables a better understanding of nonbinary identities and

		• Early 2017			practices that refuse discourses of binary gender on which the WBN is based
(Campeau, 2020) Doctoral thesis United States	Understand interrelated concerns about vaccination, autism, and healthcare institutions by engaging sense-making of complicated medical situations and participation in healthcare decision-making processes	• Somali parents (n=93), community health workers and educators (n=35), and social service providers (n=18) • Purposive sampling • Participatory observations, open-ended interviews, artifact-based interviews and observations, and participatory observations. • Between July 2017 and April 2018	• Modified grounded theory approach • Triangulation	• [No direct reference to CPH] • Key to approach diagnoses as both precise medical categories and as rhetorical tools • Emphasizes how Public health's approach to vaccination is seen as a singular discourse, which misses addressing multiple, specific counterpublics • Enables understanding how groups use diagnoses like autism to form health-focused counterpublics, convey experiences, and advocate for structural changes	• Openness to the rhetorical dimensions of diagnoses led to perceiving and making sense of the ways that participants used the autism diagnosis to form health-related and epistemic counterpublics, to articulate embodied experiences, and to advocate for structural changes. • Need to expand the scope to observe practices and use methods like ethnography, as current approaches focus on textual representations of concerns and identities • Offers a more comprehensive understanding of the diverse health strategies within marginalized counterpublic
(Engel, 2020) Doctoral thesis Australia	Explores online Australian forum discussions on drugs, their usage, and policies, emphasizing the prevalence of prejudice and potential for solidarity and cultural citizenship	• Online • People who use drugs (PWUD) who participate in Australian Drug Discussion (AusDD) • Forum posts, published by (n=262,395) • Purposive sampling • Provided directly from an administrative team • Between October 1999 and October 2016	• Thematic analysis • Constructionist or critical approach • Data delimitation	• Points to how the limited presence of pleasure in drug-related discourses acts as a counter-discourse against the medical narrative's pathologization of PWUD • Supports discourses that influence how PWUD discuss drug use and shape sociocultural theories, with initiatives like AusDD, emphasizing societal responsibilities and opposing reductive drug representations	• PWUD face contrasting discourses: negative ones (prohibition and medicalized) portray them as societal burdens or addiction victims, while harm reduction offers a more understanding view • *Participants provided extensive support for one another. A better understanding of how this provision occurs would be useful both for policy makers and drug service providers.* • *Empowering such groups using deliberative engagement designs would be a valuable policy*

					experiment, and future research should explore this further.
(Lafferty et al., 2020) Australia Keywords: Hepatitis C, treatment as prevention, reinfection, prisons, prisoner health, counterpublic health	Examines patients' views on HCV reinfection after successful treatment in prison and delves into inmates' perceptions of HCV reinfection post-cure	• Australia • Men in prison with a history of injecting drug use and HCV (n=23) • Convenience sampling • Semi-structured interviews • Time period unclear	• Thematic analysis using a CPH lens • Deductive and inductive coding	• Addresses health necessities of non-conventional groups, including incarcerated drug injectors • Scrutinizes specific health risks, like HCV reinfection (e.g., sharing injecting equipment) after treatment in restricted prevention settings • Acknowledges participants' views on reinfection equating to 'cure' failure and associated emotional toll • Race (2009) describes CPH as the notion in which: *the health needs of population groups outside the societal norm are recognized and acknowledged, with equitable consideration for their needs addressed*	• Interviews with participants revealed challenges of meaningful HCV 'cure' in the absence of increased access to prevention strategies. • 'Cure' status included self-perceptions of being "clean", while also imposing responsibility on the individual to maintain their 'cure' status • *Prison-based HCV TasP is a strategy, broadly adopted from HIV harm reduction strategies, which prioritizes the health of prisoners living with HCV and delivered in a manner that is compliant with correctional conditions.*
(Lea et al., 2020) Germany Keywords: Microdosing; LSD; psilocybin; mental health; cognitive performance; treatment	Explores microdosing psychedelics for mental health treatment and emphasizes social research on individuals self-treating mental health with microdosing	• Online • Discussion threads on the microdosing "subreddit" of the online discussion website Reddit (n=174) • Purposive sampling • Between January and March 2018	• Content analysis	• Highlights health approaches of marginalized groups diverging from mainstream methods, like self-therapies involving illicit substances • Points out microdosing psychedelics as an unconventional yet emerging mental health treatment • Demonstrates that conventional therapies are failing many people who are searching for alternatives • *The health strategies of marginalized groups that do not conform to mainstream*	• Motivations for microdosing include self-management of mental health issues, improvement of psychosocial wellbeing, and cognitive enhancement. • Perceived limitations of microdosing include issues related to dosing, adverse physical effects, taking illegal substances, limited or no mental health or cognitive improvement, increased anxiety, unpleasant "off" days, only short-term benefits, and concerns about dependence and drug-related risks

				approaches, in this case the use of illicit substances as self-managed therapy (Race 2009)	
(Malins & Duncan, 2020) Research report Australia	Evaluates Smarter About Drugs[29] pack in Victorian schools, gauging its effects and potential improvements for broader Australian school adoption	• Australia • Students who had completed both the Smarter About Drugs curriculum and the Q&A panel session (n=16), teaching staff (n=4) • Convenience and purposive sampling • Review of materials, surveys (n=24), focus groups, and qualitative interviews • 2019	• Pragmatic mixed methods approach • Interview and focus group narratives linked where relevant to survey data and analyzed concurrently • Thematic coding • Graphical and numerical comparative data outputs	• Promotes open dialogues in classrooms about drug use and facilitates discussions between students and families about drug policies • Re-engages disinterested students, encouraging critical thinking about the multifaceted nature of drug issues, including societal and structural factors. • Enhances student empathy for those facing drug-related challenges, building trust and understanding between students and educators • Advocates for a shift in drug education to not just prevention, but also practical strategies for managing drug use risks, including harm reduction	• Smarter About Drugs represents a novel step forward for drug education, moving away from the paternalistic and expert driven tendencies of conventional drug education • Affirms the value of participants' pre-existing knowledge and experience and seeks to mobilize and strengthen their capacity for critical thinking and democratic participation, rather than position them as uninformed and vulnerable • Achieved through an interactive and collaborative learning experience that engages and benefits both students and teachers.
(Sanders et al., 2020) United States	Considers the potential unintended consequences of a policy environment designed to de-normalize tobacco use, focusing on the	• United States • Nonheterosexual and/or non-cisgender adults (n=201)	• Qualitative coding • Analytical memo • Pattern-level analytical approach	• Drawing on Warner (2002) and Fraser (1990), Race proposes "counterpublic health" to address: *specific health, well-being, and care practices and discourses of people in a marginal position relative to the*	• Analysis revealed that participants implicated tobacco use in exacerbating health inequities and perpetuating harmful narratives of queer suffering.

[29] *Smarter About Drugs* is an exceptional educational tool for drug policy that is tailored for use in a wide range of subjects, including Legal Studies, Civics, and Politics classes. Its aim is to encourage students to engage in critical thinking about the historical, social, political, and legal aspects of drugs (both legal and illegal). By examining how these issues affect communities and exploring potential solutions through active participation, students can gain a deeper understanding of the complexities surrounding drug policy.

	experiences of queer adults who smoke and live in California	• Convenience, purposive, and snowball sampling • In-depth interviews • Time period unclear		*normative neoliberal subject implicitly addressed by the public health establishment (i.e. white, heterosexual, cisgender, often male and at least middle class) (Race 2009:157–63)* • Addresses health disparities and challenges harmful narratives surrounding queer suffering • Self-care emerges not just as a personal practice but as a potent symbol of resistance against normative standards • *Race argues that developing a concept of counterpublic health and elaborating its possibilities for alternative care practices is "crucial in terms of enhancing the well-being and pleasure of subordinate and endangered populations, such as queers, women, and drug users" (Race 2009:162)*	• Participants regarded smoking as a critical tool for self-care and symbol of resistance • Using stigma in health promotion efforts which reinforce normative conceptions of health may be harmful to queer people whose social identities exist within ongoing legacies of pathology, health stigma, and deviance from hegemonic structural norms • *By foregrounding the perspectives of participants themselves in contrast to those that dominate mainstream approaches to public health, it is our hope that this analysis contributes to the elaboration of counterpublic health ethics and care practices. Such elaboration can work towards critically expanding both the boundaries of the 'public' and narrow definitions of normative biomedical 'health' by which 'public health' efforts are currently limited.*
(Goutzamanis et al., 2021) Australia Keywords: Hepatitis C virus, Direct-acting antiviral treatment, Peer communication, People who inject drugs, Longitudinal qualitative research	Explore what and how treatment via direct-acting antiviral treatment for hepatitis C related information is shared between people undergoing treatment and their peers	• Australia • 18 years old or above, reported a history of injecting drug use, living with hepatitis C (n=20) • Convenience and purposive sampling • Semi-structured interviews	• Thematic analysis • Longitudinal trajectory analysis	• Prioritizes the lived experiences and knowledge of people who inject drugs and live with hepatitis C directly affected • Traditional public health discourse often centers on general biomedical information, overlooking the firsthand knowledge of these individuals • Shows how information shared by participants did not contradict medical data but showcased the	• Participants underwent an empowering transformation from passively receiving treatment information from peers to advocating for treatment within their networks • Exemplifies that people who inject drugs are proactive agents in supporting their peers and hepatitis C elimination efforts • Information both shared and received suggests that non-

		• Between September 2017 and July 2019		weight of experiential knowledge within peer networks • Highlights that while biomedical knowledge is essential, social and experiential contexts significantly shape health information and its interpretation	technical messaging, built upon trusted treatment anecdotes, resonates strongly with participants
(A. Farrugia et al., 2021) Australia Keywords: Sexual health, qualitative analysis, relationships and sexuality education, young people, online information, qualitative interviews, Australia	Explore the processes by which young people assess the credibility of online sexual health information	• Australia • Young people aged between 18 and 21 (n=37) • Purposive and snowball sampling • Semi-structured interviews • During outbreak of COVID-19	• Irwin and Michael's account of science–society relations • Warner's conceptualization of "publics" • Constant-comparison method (Kolb, 2012)	• Suggests that the inclusion and exclusion of certain forms of knowledge in sexual health education contribute to shaping these publics and counterpublics • Approaches young people's engagements with online sexual health material as a complex encounter between their experiences, practices, and concerns and the concerns and assumptions of the resources found online	• The young people interviewed consistently report adopting a skeptical, critical stance toward the forms of sexual health knowledge they found online • This youth public questions not the content and accuracy of online resources as well as the processes that produce and authorize it • Important to analyze young people's strategies for determining the credibility of online sexual health information • *In the context of our research, these publics often take shape through encounters between expert knowledges and experiential knowledges of sexual health*
(Drysdale et al., 2021) Australia Keywords: Sexualised drug use, Crystal methamphetamine, Gay and bisexual men, Risk	Examine how risk is understood and prioritized by gay and bisexual men who combine crystal use and sex and identify the range of risk reduction practices that they used	• Australia • Gay and bisexual men aged 21 to 74 years, 45 years with HIV and HCV infection who use crystal for sex in the last 12 months (n=88) • Convenience and network sampling	• Constructivist, grounded-theory approach	• Emphasizes care practices that aid collective harm reduction and safety among gay and bisexual men using drugs for sex • Provides a lens to explore the creation of specific knowledges within marginalized environments overlooked by traditional public health • Demonstrates how everyday understandings and practices	• Gay and bisexual men overwhelmingly prioritized the risk of dependence over any other risks associated with crystal-enhanced sex, and this prioritization was reflected in the risk reduction practices they employed. • *Neither public health nor counterpublic health are singular*

reduction, Sexual health, Addiction		• Individual, semi-structured, in-depth interviews • Between 2017 and 2019		are often focused on forms of care for the self and others underpinned by the context of sex-based sociality • *Rather than viewing CPH as oppositional to public health, we take Michael Warner's original theorization that loosely defines a counterpublic as in "tension with a larger public" (Warner, 2010 [2002], p56)*	*or monolithic entities, nor do they represent consistent or static domains of knowledge.* • *Risk-practice decisions are embedded and experienced in the relationality of gay and bisexual men's lives; that is, in the particular shapes, forms and expectations of those relations that can be created, experienced and shared, and in the structuration of gay and bisexual men's relations in practice and over time.*
(Engel et al., 2021) Australia Keywords: drug, discourse, pleasure, stigma	Identify how to find a sense of agency and non-stigmatized subjectivity within the way people who use drugs (PWUD) discuss their drug experiences	(Engel, 2020)	(Engel, 2020)	• Recognizes how the agency of PWUD could make drug reduction strategies more effective and lead to the emergence of new harm reduction methods • Allows for diverse understandings like framing drug use around controlled and ethical pleasures • Embraces positive drug narratives that can reshape the dominant discourse	• Recognition of positive aspects of drug use and the expression of these stories can help to reduce the harms of stigma and negativity • *Tension between the subjective and diverse experiences of drug pleasures and the insistence within medical thinking that pleasure is best known objectively, outside of PWUD's experience, through a focus on pharmacological reward*
(Møller & Hakim, 2021) Special issues article Denmark Keywords: Chemsex, pleasure, gay men, homonormativity, neoliberalism	To understand chemsex as a cultural formation that has emerged in response to different cultural contexts and to unpick the representational politics of chemsex	N/A	• 'Critical' approach, but otherwise unclear	• Race's 2009 approach emphasizes understanding how individual and community health is managed without relying on institutional support • *...the cultivation of viable ethics and modes of embodiment that contend not only with the challenges of HIV infection, but also the mass mediation and*	• The vast majority of chemsex research is framed within a risk paradigm (*often made to be either purely cause or effect, operating as a start or endpoint to an unsustainable mode of feeling, communicating and/or existing*), with limitations and remains hegemonic in the field • Critical chemsex studies should operate along three axes: public

				medico-moralization of pleasure and health (Race, 2009: 110).	health, cultural dimensions, and pleasure ● Future research should focus on national and regional differences in chemsex culture, and include more women, trans and nonbinary people
(Pienaar et al., 2021) Australia Keywords: COVID-19; qualitative analysis; posthumanist performativity; publics; public health; counterpublic health; Australia	To analyze Australian media articles, commentary and public health messages to explore the normative assumptions underpinning COVID-19 measures	● Online ● COVID related public health messages from government bodies and organizations (n=22), commentary (n=23), and news media articles (n=38) ● Purposive and timebound sampling ● Between March to October 2020	● Case study approach ● Iterative inductive approach to code data thematically	● Addresses challenges in formulating care strategies for marginalized groups ● Promotes an alternative care ethic, drawing from feminist and posthumanist ideas and acknowledging existing care practices within communities ● Emphasizes the importance of recognizing and building upon community-driven care practices in marginalized groups often overlooked by mainstream health strategies ● *As a concept, [CPH] tries to get a handle on some of the dynamics that impede the formulation of practical strategies of care within such populations [queers, women, and drug users], highlighting the sense in which these dangers are a function, in part, of hegemonic norms (Race, 2009, p. 162).*	● Discusses the importance of alternative kinship structures and the logics of care they enact, which challenge the normative social unit of the nuclear family ● Emphasizes the need for new relationships that require deeper trust and sharing in new, respectful ways that limit exposure to risk, while still enabling sociality ● Measures enact the (human) subject of public health as monogamous, coupled, and living with their partner or nuclear family, excluding those in non-normative relationships and households
(Rance et al., 2021) Australia Keywords: community advocacy, hepatitis C treatment, pharmaceutical	To trace how universal access to curative medicines affords revised notions of citizenship and social inclusion among people who inject	● Australia ● Individuals who were professionally employed by (or in other ways closely associated with) the work of key advocacy and	● Discourse analysis ● Interview data as both co-produced in relation to context (Dingwall, 1997) and performative	● Publics and counterpublics shape identities through discourse. ● The HCV-affected community is seen as evolving virtual "(counter)publics" formed by discourse around HCV, as opposed to being viewed as a pre-defined group	● Universal access to curative medicines for HCV affords revised notions of citizenship and social inclusion among people who inject drugs and others affected by HCV ● Accounts of participants enact treatment as an individual,

citizenship, publics and counterpublics, universal access	drugs and others affected by HCV	community organizations and had hepatitis C (n=16) ● Purposive sampling ● In-depth interviews ● 2018	(Butler, 2010; Law, 2004) ● Concentrate on what is being constituted or produced in interview accounts (Bacchi and Goodwin, 2016)	● *While publics and counterpublics are both arenas of discursive circulation in which subjectivities are formed, in the case of a counterpublic, the members maintain some awareness of their subordinate status (Race, 2009: 159).* ● *As Duff and Moore (2015), in their work with methamphetamine consumers, explain: 'Far from according closely with normative ideals, counterpublic health is forever sensitive to the ways health is lived or realised in the context of endemic social, economic and personal disadvantage' (pp. 61–62).*	sometimes collective 'good': a citizenship potential; however, limits to actualizing this potential were noted by other participant accounts, especially the most socially disadvantaged who continue to inject drugs ● *Integral to how 'community' was variously imagined and enacted were overlapping non/citizenships, inclusions and exclusions* ● *A model of public health governance was performed, prioritizing pharmaceutical cure and viral elimination whilst rendering injecting drug use and its attendant social entanglements an absent presence*
(Valente & Martins, 2021) Thematic dossier [Portuguese] Portugal	Reflect on the reduction of risks and minimization of damage (RRMD[30]) and the construction of new approaches for the future by discussing Kosmicare[31]	N/A	N/A	● Recognizes that defending people who use drugs and the right to use drugs has been replaced by an intervention that is limited to being a public health response, which takes on the medical-psychological discourse, namely on the possible risks and harms of drug use	● The experience of services that deal with people who use drugs, such as Kosmicare, has shown us that the decision to use drugs is built around other factors, with pleasure being one of the most important ● The mismatch in the definition of health, well-being and self-care between professionals

[30] Although RRMD emerged as a self-organized response by people who used drugs at a time of crisis, it is currently an intervention strategy mostly promoted by governmental and non-governmental organizations, focusing its approach on reducing the potential risks of consumption. [translated from Portuguese]
[31] Kosmicare is a non-profit organization that works to promote safe and informed consumption patterns and to implement more humane and evidence-based policies and interventions. [translated from Portuguese]

				• By conveying normative ideas of health, the RRMD seems to have forgotten that a narrow concept of health is not synonymous with well-being, and that the people who use drugs are the ones who know their circumstances best (Duff & Moore, 2014).	and people who use drugs continues to be one of the main obstacles to the success of interventions in this area
(Brookfield et al., 2022) Australia Keywords: methamphetamine, addiction, recovery, chronic disease, critical	Explore the experience of the cyclical process of transitioning to abstinence from harmful drug use, and the broader concepts of drug use and 'recovery' which shape it	• Australia • People who use methamphetamine (n=12) • Convenience sampling • Semi-structured interviews • Ethnographic observations • Time period unclear	• Life course approach • Critical Interactionist Approach • Critical ethnography • Iterative categorization	• Highlights the diverse sub-groups within the 'general public', each with distinct values and needs • Calls for Public health entities to acknowledge multiple, sometimes conflicting, value systems when forming policies • *'Counterpublic health', which argues for the recognition of groups within the monolithic 'general public' with different values, priorities, and capacities (Duff & Moore, 2015; Race, 2009; Warner, 2002).* • *Counterpublic health draws attention to how 'health' is constructed in relation to a homogenised and idealised public, which in reality will always include socially marginalised people whose norms and values may construct health and wellbeing differently (Bryant et al., 2019).*	• People attempting to reduce harmful methamphetamine use often experience growth, change, and progress without necessarily maintaining abstinence • The concept of 'living with drug use' should be recognized and integrated into public health practice, as it is similar to how people live with other chronic conditions by finding 'health in illness' • *Participants lived out their trajectories in the context of knowing they were not meeting the behavioural standard of a model neoliberal citizen with its associated values.* • *Need for a more pluralistic understanding of recovery, and how this is enacted by constituents of the multiple 'publics' within the scope of public health (Duff & Moore, 2015).*
(Conway et al., 2022) Australia	Understand how people receiving opioid agonist treatment, as a counterpublic,	• Australia • People engaged in opioid agonist treatment (n=40)	• Deductive analysis based on a coding framework derived from the	• Recognizing CPH strategies in which people employ practices of care appropriate to their own needs can validate individuals	• Counterpublic health strategies employed by people receiving OAT were disrupted, but participants were often able to adapt to the changing context.

Keywords: Big Event, counterpublic, peers, practises of care, substance use	implemented practices of care to mitigate negative health outcomes during COVID-19	• Snowball and convenience sampling • In-depth, semi structured interviews • Between August and December 2020	counterpublics literature • *Fraser's theory of counterpublic as re-groupment where people with common objectives that do not align with mainstream public discourse can gather to concentrate their efforts*	seeking alternative health or wellbeing goals • *As counterpublics can be understood by their exclusion from a singular public sphere, counterpublic health can be understood as behaviours which do not align with normative public health guidance (Bell & Aggleton, 2012; Race, 2009)* • *Counterpublic health, by its nature, is often unacknowledged or discredited in public discourse.*	• *Participants had experiences of employing counterpublic health strategies prior to COVID-19, meaning they may have been more prepared than other publics to protect their own health during the pandemic or more ready to adapt public health messages to their needs.*
(Craddock, 2022) United Kingdom Keywords: women, public engagement, marginalized populations, community development, PPI	Explores how engagement of marginalized women and their communities occurs in practice with this network of public, statutory, voluntary and community services	• United Kingdom • Members of a Women's Health Network (WHN)[32] in Bradford, one of the most deprived areas of England (n=12) • Purposive sampling • Semi-structured interviews • Between September 2020 to September 2021	• Thematic analysis • Subaltern counterpublics by Fraser (1992)	• [No direct reference to CPH] • Emphasizes WHN's role in raising women's voices and concerns in healthcare and facilitating counterpublic engagement • "Counterpublic engagement" pertains to the involvement of marginalized groups, especially women, in dialogues with healthcare providers • WHN acts as a platform for two-way communication between marginalized groups (subaltern counterpublics) and the official public healthcare sphere	• WHN's bridging model of subaltern counterpublic engagement centers women's voices and promoting women's health through the network's diverse membership and reach • Enables the authentic representation of varied communities and the discursive movement of issues in the absence of direct participation
(Davis et al., 2022) Australia Keywords: Digital health, Sexuality	Examine MHR's [My Health Record] rights universalism, possessive individualism, and	• Online • My Health Record (MHR), the national digital patient record system	• Conceptual or theoretical analysis • Social theory of data assemblages, bioscience	• Acts as a resistance to the universalizing tendencies of public health science by influencing the type of data collected, its intended use, and	• Advocates for the creation of a 'My Queer Health Record' - a tailored data system that balances individual autonomy and secure benefits

[32] A collective of women aiming to improve the health and well-being of women and their families, focusing on "seldom-heard" voices

and gender, Australia, My Health Record	state-based rationalization of health governance and the health needs of sexual and gender diverse people	• News media and policy document examples • Research examining the ways that sexual and gender diverse people navigate data medicine • Sampling undefined • 2018	counterpublics, and citizenship	its interpretations, while emphasizing the transformative potential of gender and sexual diversity • *By shaping what data is collected, for what purposes, and how it is interpreted with what effects, CPH resists the heteronormative, "desexualised", "average person" that biomedical scientific practices can instantiate (Race 2010, unpaginated web document).*[33] • *Dialogical and ongoing: Race (2018) conceptualizes counterpublic health knowledge practices as perpetually and agonistically engaged with the constraining and normalizing effects of public health science.*[34]	• Push back against the generalizing and normalizing effects of data medicine, ensuring the continued possibility of counterpublic citizenship • Resist the erasure of diversity in and straightwashing of data medicine
(Lafferty, 2022) Australia	To explore the challenges of navigating gatekeepers, building	• Australia • People in prison with a history of	• Qualitative but otherwise unclear • Informed by Fook's (2016) Social Work:	• Empowering this marginalized group demands adept system navigation and nurturing genuine human connections	• Navigating trust and power is key to successful prison-based research

[33] A key example is "negotiated safety," which emerged from a survey indicating that some gay men refrained from using condoms during sexual intercourse based on their knowledge of their partner's HIV status (Kippax et al., 1993; Kippax & Race, 2003). This sparked controversy as it conflicted with the standard public health advice to either abstain from penetrative sexual intercourse or use a condom consistently. From a CPH perspective, the findings suggested that gay men were highly reflective about their HIV risk and contributed to a significant shift in HIV prevention approaches from universal strategies to those tailored to the diverse socio-sexual contexts inhabited by gay men.

[34] Per Albury (2018), scientists, clinicians, and affected communities joined forces to advocate, research, and implement successful strategies in the pursuit of effective HIV treatments. Persistent and innovative dialogue was crucial for Albury to bridge the gaps and limitations of scientific knowledge and practice while also combating stigma and prejudice against individuals living with HIV and their loved ones. This collaborative approach was characterized by a shared "humility" that recognized the gravity of the situation (2018, p. 1332).

Keywords: Rapport, Trust, Power, People in Prison	rapport-in an-instant, and ensuring participant confidentiality in a highly secure and scrutinized prison setting	injecting drug use (n=116) ● Purposive and referral sampling ● Qualitative interviews ● Between November 2014 and March 2018	A Critical Approach to Practice, focusing on the role of power	● Emphasis on understanding the intricacies of injecting behaviors, culture, and its risks among incarcerated individuals is crucial. ● Investigates these injection practices in prison, centering on strategies for risk assessment, prevention, HCV testing, and treatment	● Existing 'how-to' guides for prison-based research often draw on ethnographic studies which allow substantial time for the interviewer to build rapport with key prison contacts ● Strategies for on-the-spot rapport building with people in prison are outlined which may be applicable to research with other population groups in which power imbalances may exist
(Manlik, 2022) Australia Keywords: Lesbian; queer; silence; HIV/ AIDS; WPR	Explore how sexual minority women are (not) spoken to as particular kinds of subjects in Australia's largest LGBTQ women's magazine, Lesbians on the Loose	(K. Smith, 2022)	(K. Smith, 2022)	● *"Counterpublic health": a term Kane Race (2009, 163) has used to explore health (and in particular harm reduction and HIV) education strategies that engage with "the socio-political conditions in which certain dangers materialize."* ● *(Race 2009, 159), Race clarifies that "counterpublic health" should not be understood as opposing public health interests* ● *Rather, these initiatives operate alongside the knowledges and embodied practices that emerge in "at-risk" communities, with the aim of strengthening public health (Race 2009)*	● Sexual minority women are largely invisible in Australian HIV discourses and are spoken to as allies to sexual minority men and people living with HIV, and as "at-risk" of contracting HIV themselves. ● An analysis of the magazine reveals the silencing of sexual minority women's identities, practices, and desires ● The unspoken knowledge shared among sexual minority women and the ways they communicate this information warrant deeper investigation in future studies
(Murphy et al., 2022) Australia Keywords: COVID-19; gay and bisexual men; risk reduction; lay epidemiology; counterpublic health	Describe the ways in which men sought to minimize the risk of COVID-19 in sexual encounters	● Online ● Participants in a national cohort study of gay and bisexual men (n=1131) ● Convenience sampling ● Surveys	● Inductive coding ● reflexive thematic analysis approach	● Prioritizes localized knowledge and care habits of gay and bisexual men, and valuing queer sexual behaviors as integral to impactful public health measures. ● *Considers the development of strategies to facilitate sexual encounters in the face of a*	● Partner selection was an important strategy for reducing the risk of COVID-19 transmission in sexual encounters, with participants restricting sex to men they already knew. ● Participants assessed risk from potential sex partners based on symptoms, residential location,

		• Between April to July 2020		*pandemic as evidence of counterpublic health (Race 2009).* • *Public discourses, including public health, are dependent on – and in fact are involved in producing – an imagined and idealised public based on normative assumptions (Bryant et al. 2019; Duff and Moore 2015).*	recent travel, work role, and number of other sexual contacts. • Practices such as avoiding kissing were less common, indicating creative community-based responses in the early months of the pandemic.
(Pires et al., 2022) Portugal Keywords: chemsex, drug subcultures, harm reduction, Lisbon	Present the community-led creation of a transdisciplinary collaborative network that is able to assess and respond to chemsex-related risks through a partnership (Valente & Martins, 2021)	• Portugal • Harm reduction and health professionals, and [in one case] a chemsex practitioner and peer educator • Professional experiences, participant observation, literature review, and autoethnography • Sampling undefined • 2019	• Self-reflective collective process • Collective, inclusive and subculturally grounded analysis	• Community-led harm reduction network addresses chemsex-related issues as a CPH initiative • Emphasizes participatory methods, offering an alternative to the impartiality of mainstream health responses • Prioritizes harm reduction by recognizing and legitimizing pleasure in both sexual activities and drug use • *By considering pleasure and benefits, harm reduction is a counterpublic health approach (Race, 2009), since it moves beyond abstinence-only and other intervention responses that conceptualizes the search for pleasure as a threat to health and safety.*	• Chemsex is a global trend with localized idiosyncrasies that must be addressed when designing local tailored interventions based on emerging trends at local level • Transdisciplinary collaborative networks of communities (chemsex practitioners, gay-friendly and queer venues and collectives) and professionals in the fields of intersection of chemsex are necessary to assess and respond to chemsex risks. • Suggests examining chemsex, varied substance use, and health inequalities using an intersectional perspective to ensure equitable access to healthcare and promote inclusive strategies
(Smith, 2022) Master's thesis Australia	To explore how LGBTQ+ women become constituted as particular kinds of (non)subjects in Australian Government policy and LGBTQ+ women's	• Online • Data sources: The 7th National HIV Strategy website and a Sydney-based magazine, Lesbians on the Loose	• "Analysis of discourses" • Bacchi's WPR approach ('What is the Problem Represented to Be?', foregrounding	• Counterpublics are characterized by their conflicting relationship with the dominant public. • This idea gives rise to the term 'counterpublic health', denoting health initiatives that challenge the moralizing narratives prevalent in mainstream society.	• HIV is conceptualized as a problem of intersectional inequality and structural violence, stemming from interlocking systems like homophobia, misogyny, and transphobia.

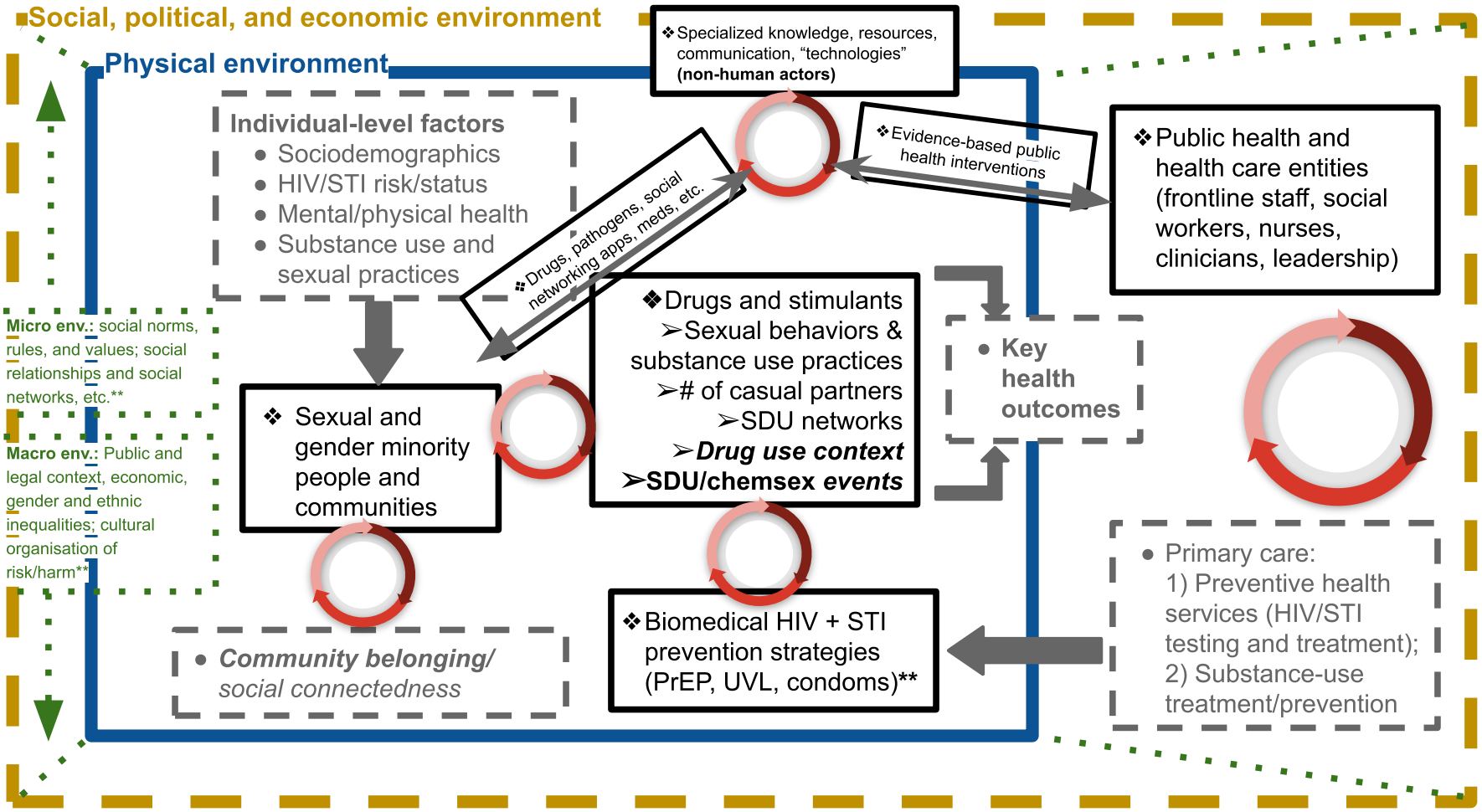
	print and online medias	• Purposive sampling • Between 2014 and 2017	a theory of "enactment") • Practices of 'self-problematization (Bacchi 2012; Bacchi and Goodwin 2016) • Foucault's subjectivation	• Even though counterpublic health can foster new, impactful relations to HIV, it still predominantly uses 'risk' as a primary management strategy. • *Race posits that if counterpublics are defined as those that contain a "conflicted relation with the dominant public", then a conception of 'counterpublic health' might enable us to describe health initiatives which trouble particular moralising discourses that circulate in "the dominant public" (2009: 159).*	• This view is based on the understanding that social inequalities affect health outcomes, necessitating solutions at the state level, where the state is seen as responsible and acts through human rights and health promotion frameworks. • *LGBTQ+ women's invisibility in HIV discourse(s) has required "wilful acts of ignorance"* • *LGBTQ+ women have (re)emerged in particular enactments of 'risk' which "survive at the margins" of dominant discourse(s) (Bacchi and Goodwin 2016: 22).*
(Lasco & Yu, 2023) Philippines	Explore how chemsex encounters happen in the Philippines, showing the spatiotemporal nature of chemsex scenes in movement between physical and virtual spaces across time	• Philippines • MSM (n=26), cis-gender women (n=7), and cis-gender heterosexual man (n=1) • Purposive and convenience sampling • Semi-structured interviews • Between May and August 2021	• Drysdale's (2021) theorization of "scene" • Capture "socio-affective configurations" and "socio-sexual affordances" • Two-level coding via thematic analysis to identify first-level or major codes and second-level or subcodes	• Underscores agency of individuals in reducing harms • Knowledge of how to care for one's health and actively do so, whether or not the methods align with biomedical evidence • CPH no longer just about clinical health but also about *the literal preservation of life in a milieu whose immediate harms are both physical and virtual*	• *Illuminated the warped and virtualized changes to this CPH: how Filipinos have come to proactively care not only for their sexual health, but also their very lives, in an evidently fatal risk environment* • *Exceptionalistic tendencies toward certain substances and the people associated with them (Lasco & Yu, 2021):* 1. *"Good moral citizen" imaginary that proponents of the drug war have claimed to fight for (see Kusaka, 2017)* 2. *"Good gay citizens" who regard chemsex as an immoral setback for community* 3. *"Good 'pleasure citizens'" (see Riley et al., 2012):*

					exceptionalism within chemsex contexts ● *Navigating the concepts of "healthy" and "unhealthy" drug use in their encounters, chemsex practitioners apparently also grapple with notions of "acceptable" and "unacceptable" drug use.*
(Møller, 2023) Book chapter Denmark	Explore how people domesticate smartphones in clubbing settings and make clubs feel safe enough, challenging the normatively prescriptive notion of "ontological security" often associated with the home	● Germany ● Gay men in their 30s and 40s attending the Berlin techno club and scene (n=4) ● Networking and snowball sampling ● Semi-structured interviews ● Between August and December 2021	● Domestication approach (concepts of object/representation, moral economy, and safety/risk) ● Coding based on pre-established thematic orientations towards drugs and smartphones	● Strategies implemented by non-institutional figures within club scenes in response to drug-related harms painted as a legal and criminological question rather than one of public health (Race, 2018: 166) ● *From a domestication viewpoint, the management or taming of drug risks in club scenes are woven together with the borderline-criminalisation and thus limiting of resources that the normative outside creates.* ● *Any use of smartphones in these spaces in relation to how it contributes to CPH work, as well as how it handles the leakage of visibility that threatens the practice and scene.* ● *Kane Race's call for research to ask: "What, in a given encounter, is a drug-using body capable of?" (Race, 2009: location 3573).*	● Seeks to merge practical aspects with normative principles to offer an all-encompassing view of how media and drugs are used in club settings ● Brings in the idea of "moral economies" to make sense of smartphone and drug usage social spaces ● Media portrayals of clubs and drug consumption contribute to a hostile environment, heightening both tangible and perceived risks for attendees and constraining the operational freedom of club proprietors.

Table 2. Keywords assigned to publications, by ascending author and year (n=35)

Young people; sexual health; HIV prevention; counterpublic health; Uganda	(Bell & Aggleton, 2012)
Discourses, Counterpublic health, Health resistance, Internet, Ecstasy, para-methoxyamphetamine, Health promotion, Harm reduction, Pleasure	(Barratt et al., 2014)
Bug chasing, containment, counterpublics, HIV/AIDS, prevention, public health	8/13/2024 10:19:00 PM
Education, place, health, facism, beyond, body	(Wright, 2014)
Counterpublic health, drug treatment, Melbourne, methamphetamine, public health, qualitative research	(Duff & Moore, 2015)
Opium tincture, laudanum, netnography, internet, oral opiate solution	(Van Hout & Hearne, 2015)
Men, homosexuality, sexual practices, sexual pleasure, bareback, HIV-infection, hepatitis C, drug use, medicine, treatments	(Le Talec & Linard, 2015)
Treatment as prevention, Hepatitis C, PWID [people who inject drugs], Harm reduction, Enabling environments, Community engagement	(Harris et al., 2015)
First-time mothers; Internet use; intimate publics; experiential advice; health information-seeking	(Johnson, 2015)
Consumption; Counterpublic health; Drug abjection; Injecting ATS use [amphetamine-type stimulants]; New psychoactive substances; Normative embodiment	(L. G. Alexandrescu, 2016)
Harm reduction, party drugs, LGBTQ culture and politics, cultural studies, science and technology studies, embodiment	(Gonçalves et al., 2016)
Stimulants, Injection, NPS [novel psychoactive substances], Spillage, Methadone, Transition	(L. Alexandrescu, 2017)
Counterpublic health, drug education, health promotion, skepticism, young men	(A. Farrugia & Fraser, 2017)
Australia, Evidence-based policy, Consumer participation, Subjectivity, Drug policy, Poststructuralism	(Lancaster et al., 2017)
AA amyloidosis [amyloid A], People who inject drugs, Kidney disease, Skin and soft tissue infections, Harm reduction, Mixed methods, Protocol	(Harris et al., 2018)
Direct-acting antivirals, Hepatitis C, Side effects, Counterpublic health	(Bryant et al., 2019)
Cognitive enhancement, substances, prescription stimulants, uncertainty, quali-quantitative methods, folk pharmacology	(Petersen et al., 2019)
Dating apps; news media; public health; sexual health; health promotion	(Albury et al., 2020)
Hepatitis C, treatment as prevention, reinfection, prisons, prisoner health, counterpublic health	(Lafferty et al., 2020)
Microdosing; LSD; psilocybin; mental health; cognitive performance; treatment	(Lea et al., 2020)
Hepatitis C virus, Direct-acting antiviral treatment, Peer communication, People who inject drugs, Longitudinal qualitative research	(Goutzamanis et al., 2021)
Sexual health, qualitative analysis, relationships and sexuality education, young people, online information, qualitative interviews, Australia	(A. Farrugia et al., 2021)
Sexualised drug use, Crystal methamphetamine, Gay and bisexual men, Risk reduction, Sexual health, Addiction	(Drysdale et al., 2021)
Drug, discourse, pleasure, stigma	(Engel et al., 2021)
Chemsex, pleasure, gay men, homonormativity, neoliberalism	(Møller & Hakim, 2021)
COVID-19; qualitative analysis; posthumanist performativity; publics; public health; counterpublic health; Australia	(Pienaar et al., 2021)
Community advocacy, hepatitis C treatment, pharmaceutical citizenship, publics and counterpublics, universal access	(Rance et al., 2021)
Methamphetamine, addiction, recovery, chronic disease, critical	(Brookfield et al., 2022)
Big Event, counterpublic, peers, prastices of care, substance use	(Conway et al., 2022)
Women, public engagement, marginalized populations, community development, PPI [patient and public involvement]	(Craddock, 2022)
Digital health, Sexuality and gender, Australia, My Health Record	(Davis et al., 2022)
Rapport, Trust, Power, People in Prison	(Lafferty, 2022)
Lesbian; queer; silence; HIV/ AIDS; WPR [what is the problem to be represented]	(Manlik, 2022)
COVID-19; gay and bisexual men; risk reduction; lay epidemiology; counterpublic health	(Murphy et al., 2022)
Chemsex, drug subcultures, harm reduction, Lisbon	(Pires et al., 2022)

Appendix C: Conceptual Framework - Actor Network, Environments, and Assemblages



Legend

- Micro/macro **environments**
- Social, political, and economic **environment**
- Physical **Environment**
- Measurable factors and concepts (**variables**)
- Human/non-human (materialist) **actors**
- Theorized **assemblages** between actors and factors

Appendix D: Failure of stigma to influence behavior change

The debate around using stigma as a tool for behavioral change in public health policies and individual behaviors reveals complex and often counterproductive outcomes. While scholars and policymakers have at times advocated for the stigmatization of health conditions like substance abuse to promote changes in behaviors such as smoking cessation or drug use reduction, the efficacy of this strategy is questionable (Zhu & Smith, 2021). The underlying assumption of this approach is that the fear of social disapproval and the associated discomfort will drive individuals to modify their behaviors to avoid stigma. Evidence suggests that stigma does not effectively motivate people to change; rather, it often induces psychological reactance, a phenomenon where individuals resist attempts to restrict their freedom, thus reducing compliance with health recommendations Stanton Peele's advocacy for a "moral vision of addiction" illustrates a nuanced stance within the discourse on stigma and health behavior, emphasizing instilling values that oppose addiction and promote health, moderation, and self-control (Room, 2005). This approach attempts to differentiate between controlled, moderate use and problematic use, assigning a positive moral value to the former and a negative one to the latter. Yet, such a stance risks reinforcing the stigmatization of those who fail to control their substance use, potentially exacerbating their marginalization.

Public policies, especially those framed around a "just say no" ethos, often aim to make drug use socially unacceptable, effectively stigmatizing the behavior (Room, 2005). These policies are thought to act as deterrents, yet they also contribute to the social isolation and discrimination of those involved. The literature on stigma as a form of social control suggests that while stigma may deter some, it invariably fails to prevent all unwanted behaviors, leaving those who are stigmatized to deal with significant social and psychological burdens (Room, 2005). The impact of stigma affects access to necessary resources for behavior change and can inhibit the formation of supportive social networks critical for recovery and rehabilitation (Zhu & Smith, 2021). Campaign-induced stigma, rather than promoting an environment conducive to change, can undermine autonomous motivation and exacerbate the challenges faced by those already marginalized. Therefore, while the use of stigma as a strategy for public health behavior change might be intended to deter unhealthy behaviors, it often results in significant negative outcomes for individuals. These include increased marginalization, reduced access to necessary resources, and greater psychological distress, which collectively undermine the very goals of public health interventions.

Appendix E: Comparison and stigma

Members of stigmatized groups often engage in what is termed 'ingroup comparisons' (Crocker & Major, 1989). This means they compare themselves with others who share similar stigmatized identities or experiences rather than with the broader, non-stigmatized population. This behavior is driven by the motivation for interacting with those in similar situations via a proximity effect, making more accurate self-evaluations via a similarity effect, and maintaining self-esteem via a self-protective effect (Crocker & Major, 1989). Such comparisons can serve as a buffer against the negative impacts of stigma, helping maintain a level of self-esteem by viewing one's experiences in the context of similar others. However, one may argue that these ingroup evaluations can inadvertently reduce the motivation for personal improvement and broader social change (Crocker & Major, 1989). By normalizing their experiences within a stigmatized group and seeing them as typical rather than exceptional, individuals might feel less impetus to change their circumstances or challenge the status quo. Moreover, this normalization can obscure the extent of discrimination or the severity of their situation, potentially perpetuating a cycle of stigma and marginalization.

Zhu and Smith (2021) discuss various strategies adopted in response to stigma, ranging from avoidance—where individuals might conceal their drug use—to denial strategies that reject the stigma altogether. Such behaviors reflect a complex navigation of identity and stigma, where individuals balance the need for self-protection with the desire for social acceptance or change. On the other hand, the act of 'othering' involves individuals distinguishing their drug use as controlled or acceptable versus the 'problematic' use of others, distancing themselves from negative stereotypes associated with more extreme drug use (Healy-Cullen et al., 2024). This comparison can reinforce internal hierarchies within stigmatized groups and complicate holistic approaches to drug use. In sum, comparison among drug users is not just a personal or psychological process but is deeply embedded in the social contexts and stigmatized identities that these individuals navigate. Understanding these dynamics is crucial for designing interventions and support mechanisms that recognize the nuanced ways they relate to their own behaviors and to others within their communities. This internal narrative reinforces personal agency and sets the stage for how individuals perceive and exercise control. Thus, the empowerment derived from managing one's image and behaviors in the face of stigma directly may influence the ways in which individuals assert control and make choice.

Appendix F: Biopsychosocial outcomes of sexualized drug use

Following from the exploration of the contextual factors that influence SDU, it is crucial to delve into the biopsychosocial health outcomes associated with such behaviors. Illegal drugs, including crystal methamphetamine, g-hydroxybutyrate or GHB, and ketamine, have often been utilized to enhance sexual performance, arousal, and overall experience, phenomena broadly categorized under SDU or more specifically in chemsex or PnP in scenarios involving prolonged sex with multiple partners (Sansone et al., 2022). This practice is prevalent across various countries and demographics, including but not exclusively among men who have sex with men. The allure of enhanced sexual experience often leads to higher-risk behaviors. Notably, the prevalence of chemsex is also significant among women who have sex with women, indicating its broad reach across different sexual orientations (Sansone et al., 2022). Thus, the supposed benefits of drug-enhanced sexual experiences come with substantial risks. Users often report severe negative effects such as loss of consciousness and the risk of potentially lethal overdoses (Sansone et al., 2022).

Furthermore, the use of substances like cannabis and alcohol is commonly reported to increase sociability and reduce inhibitions, while drugs like Ecstasy are sought for their ability to heighten sexual sensitivity and intensity (Sansone et al., 2022). These substances, while enhancing certain desired social and sensual experiences, concurrently expose users to high-risk sexual behaviors that compounding the likelihood STIs and unintended pregnancies (Sansone et al., 2022). STIs themselves have profound implications for both reproductive and sexual health, underscoring the critical need for effective harm reduction strategies. Although Pre-exposure prophylaxis (PrEP) is recognized as a harm reduction strategy to minimize HIV risk, it does not prevent other viruses or STIs. Additionally, the awareness and knowledge about PrEP among injection drug users and the general population remain limited, highlighting an urgent need for education focused on sexual health (Sansone et al., 2022).

The association between chemsex and a variety of sex and drug-specific health and social harms further stresses the importance of a nuanced understanding of SDU (Platteau et al., 2022). The continuum model proposed for chemsex usage suggests viewing chemsex as a journey, with problematic use as a potential but not inevitable outcome. This model emphasizes the critical need to prevent chemsex behavior from becoming problematic and to tailor support to the varying needs of individuals engaged in these activities (Platteau et al., 2022). In sum, it is clear that addressing the complex biopsychosocial impacts of SDU requires a multifaceted approach. Understanding these impacts not only allows for the identification of risks but also for the formulation of targeted interventions that can mitigate the adverse effects while respecting the varied experiences and needs of those involved in SDU. This approach aligns with the broader goal of harm reduction.

Appendix G: Critique of mainstream harm reduction

Harm reduction is a strategy designed to decrease the negative effects associated with drug use without necessarily stopping the use itself. Originally, this approach was intended to shift away from judging drug users and instead focus on providing practical help (Marlatt & Witkiewitz, 2010). This concept challenges the traditional views where drug use is seen as morally wrong or a legal issue (Bourgois & Schonberg, 2009). Foucault described how societies have moved from using force or "sovereignty" to control people to using more subtle ways like promoting health or "biopower" (Bourgois & Schonberg, 2009). This shift is especially relevant to harm reduction; instead of forcing people to stop using drugs, it focuses on helping them reduce the risks associated with drug use. However, the responsibility for health is often placed solely on the individual and suggests that if people are informed enough, they will make better or rational choices. This overlooks the complex factors that influence people's decisions, like their social environment and personal relationships (Bourgois & Schonberg, 2009).

Critics argue that harm reduction sometimes prioritizes public acceptance over addressing the deeper needs of the most affected, potentially overlooking broader social factors like inequality and stigma (King, 2020). According to King (2020), true harm reduction aims to assist the most vulnerable and stigmatized individuals, arguing that deeper issues like social inequality and the need for compassion may be ignored when framing harm reduction as merely a "utilitarian" solution to drug problems that is evaluated on a cost-benefit analysis. In chemsex contexts, traditional harm reduction strategies risk contributing to stigma by overly focusing on individual choices without accounting for broader social pressures (Healy-Cullen et al., 2024). Thus, harm reduction should also challenge the negative labels and treatment of drug users. It should promote understanding and recognizing the complex reasons why people might engage in risky behaviors. This shift could be observed in the trajectory of cannabis starting out as a Schedule 1 substance, which places it in the most restrictive category of substances. Now, nearly 90% of U.S. adults supported some form of cannabis legalization in 2022, either medical (30%) or both medical and recreational (59%), thereby leading to numerous state-level policy changes to legalize and decriminalize cannabis over the past decade and overall reflecting increasingly accepting societal attitudes (Bosley et al., 2023).

The critique of harm reduction highlights the gaps and challenges within its application, particularly when addressing the needs of marginalized populations. This discussion further evolves when considering the potential shift towards a legally regulated regime for currently illicit drugs. This shift raises concerns about whether the harmful use of these drugs might increase under such a regime as posited by Erickson et al. (1997). Moreover, existing research reveals another significant challenge: the social stigma associated with drug use and harm reduction efforts themselves. For instance, a public opinion survey found that while people might support harm reduction strategies for relatively benign activities like skateboarding, they are far less supportive when it comes to more stigmatized behaviors such as heroin injection or even sex and tobacco use (King, 2020). This disparity in public support underscores a critical barrier to harm reduction's broader acceptance and effectiveness: societal attitudes are not just about the behaviors themselves but also about the perceived moral and social standing of

those involved in such behaviors. Additionally, the effectiveness of harm reduction programs is heavily influenced by the trust that drug users place in these programs. Across various countries, evidence suggests that drug users need to feel confident that participating in harm reduction programs will not expose them to harm from law enforcement or additional stigma from their community (Sansone et al., 2022). This need for safety and acceptance is crucial for the success of harm reduction strategies, as fear of legal repercussions and social ostracization (i.e., stigmatization) can deter individuals from seeking the help these programs aim to provide.

Appendix H: Defining agency, empathy, and resilience in social connection

Agency

Traditionally, discourses surrounding drug use have inscribed a neoliberal subject model, portraying individuals as autonomous, rational, and independent agents capable of calculating and making decisions about their lives (Healy-Cullen et al., 2024; Moore & Fraser, 2006). The neoliberal view of drug users as 'entrepreneurs of the self' in harm reduction practices has been both empowering and problematic; while it frames drug users as capable and responsible, it also burdens them with the expectation of self-management without adequate support (Moore & Fraser, 2006). Another critique of neoliberal notions of agency challenges the assumption that agency is inherently directed towards “positive” moral goals and emphasizes the need to consider agency in resisting hegemonic and domination forces (Bordonaro & Payne, 2012). This model often fails to adequately acknowledge the material constraints on individual agency, such as social, economic, and cultural barriers that can limit personal autonomy (Moore & Fraser, 2006). The shift towards contemporary harm reduction discourses suggests a nuanced understanding of agency among drug users. These discussions have begun to embrace alternative formulations that recognize agency as dispersed or intersubjective, acknowledging that individuals are often embedded in a network of relationships and environmental factors that significantly influence their behavior (Moore & Fraser, 2006). Similarly, the broader social context or “setting element” recognizes drug use and abuse as social phenomena subject to societal definitions and reactions (Cheung, 2000).

A shift towards recognizing the 'risk environment' approach highlights how agency among drug users is both constrained and facilitated by broader power relations, including gender, class, and poverty (Moore & Fraser, 2006; Rhodes, 2002). This perspective encourages a more contextualized understanding of agency to move beyond the individual to consider the wider social and political conditions that shape drug-related behaviors. This reconceptualization would also suggest that while drug users may be seen as rational actors, their choices are significantly shaped by their surroundings, including the pressures and limitations imposed by societal structures (Healy-Cullen et al., 2024). Furthermore, positive expressions and self-representations by people who use drugs can redefine their experiences away from the stigmatized identities often associated with drug use (Engel et al., 2021). By articulating their experiences positively (e.g., pleasure and social connection), people who use drugs can assert greater control over their narratives, challenging the dominant medico-legal discourse that often portrays them as passive victims of their life conditions as a person who use drugs (Engel et al., 2021). This act of self-representation not only affirms their agency but also provides a platform for them to participate more actively in policymaking and harm reduction strategies.

Self-control and moral agency

The Brain Disease Model of Addiction posits that addiction can take over the brain, making behaviors like drug use feel compulsive and difficult to control (Platteau et al., 2022). This model contrasts two pathways of decision-making: the automatic, impulsive system and

the reasoned, deliberative system (Platteau et al., 2022). In the context of SDU, the impulsive system might drive one towards the immediate pleasures of combining sex and drugs, while the reasoned system weighs the long-term consequences, such as physical harm, legal issues, or social disapproval (Platteau et al., 2022). Individuals exert self-control by choosing what substances to avoid, how often to use, and how to protect their health and the health of others, all while considering the broader social implications of their actions (Platteau et al., 2022). Self-control also shapes one's moral agency by balancing short-term desires with long-term health and ethical considerations. This capacity for reflection is essential for the empathetic and ethical engagements described in the discussion of moral agency.

Moral agency is rooted in the capacity to empathize and make decisions based on the potential harm to others. Moral agency encompasses the ability to form judgments that prioritize the welfare of others over personal desires, driven by emotive responses and empathy towards others' experiences (Aaltola, 2014). Together, self-control and moral agency in the context of SDU challenge individuals to navigate complex emotional and ethical terrains. They must consider their immediate desires and impulses while considering the broader implications of their actions on both personal and communal levels. This framework underscores the importance of cultivating environments and support systems that enhance individuals' capacities for self-control and moral agency.

Challenging the binary view of drug use behavior, a continuum of drug use from compulsive to controlled can reflect one's spectrum of agency (Cheung, 2000). This view suggests that individual agency is not just a matter of personal choice but is also influenced by societal perceptions and responses, which includes the creation of moral panics that can dictate public attitudes and policies[35]. Such influences can hinder or facilitate the empathetic understanding necessary to connect with and support others facing similar challenges. Examining empathy will show how these external pressures shape internal moral deliberations and ultimately influence one's capacity to connect with and understand others' experiences and challenges.

Empathy

Empathy is essential for developing an environment that can resist and potentially diminish the impacts of stigma. Empathy involves both cognitive and affective components—

[35] "Public belief in an ever-growing drug problem has fuelled the prohibitionist reaction to drug use and the user. This view assumes that illicit drug use is a morally corrupt behaviour, one that violates the 'collective conscience' of the community. The control of such immoral behaviour is necessary, requiring a strong law-enforcement apparatus and a drug policy that declares war on drugs and heavily punishes drug users. Major criticisms of this approach include its moral arbitrariness in dividing drugs into licit and illicit ones, marginalization of drug users, straining of the criminal justice system, infringement of the civil rights of citizens, indirect sustenance of a black market, and its inability to curb the availability and consumption of illicit drugs" (Cheung, 2000, p. 1698).

understanding others' perspectives and emotionally resonating with their experiences (Aaltola, 2014; Zhu & Smith, 2021). Cognitive empathy allows individuals to perceive or infer the mental states of others, offering an approach for understanding their conditions without immediate emotional involvement (Aaltola, 2014). This understanding can increase awareness of the complexities behind stigmatized conditions and reduce snap judgments or stereotypes (Zhu & Smith, 2021). However, cognitive empathy alone might inadvertently reinforce stereotypes by association, as it categorizes experiences without necessarily feeling them (Aaltola, 2014). On the other hand, affective empathy goes a step further by enabling individuals to resonate emotionally with the feelings of others (Aaltola, 2014). This form of empathy facilitates a deeper connection that can challenge personal preconceptions and biases, promoting a more profound moral awareness and sensitivity towards the suffering of others (Aaltola, 2014). Affective empathy inherently involves an openness to the life experiences of others, which can help dissolve the barriers erected by stigma. This openness not only recognizes the other's condition but also engages deeply with it, avoiding superficial engagements that might treat the other's suffering as merely an object of pity or a distant problem (Aaltola, 2014; Zhu & Smith, 2021).

Thus, empathy can be a double-edged sword depending on which component is more prominently present. While empathy can encourages prosocial (acting to benefit others beyond oneself) behaviors like helping, it can simultaneously create a dynamic of superiority where the helper feels above the person being helped (Zhu & Smith, 2021). This may lead to the infantilization of those in need—a situation where the individuals receiving empathy are seen as less capable or in need of guidance, which can undermine their agency (Zhu & Smith, 2021). On the other hand, by engaging with and understanding the stigmatized experiences of others, individuals can challenge societal norms that perpetuate stigma. This engagement can lead to the re-construction of social identities, where people living with stigmatized conditions use communication to resist stigmatization actively and gather allies to support their cause (Zhu & Smith, 2021). Promoting empathy, particularly affective empathy, within communities and individuals can serve as a robust tool against stigma. It allows for a re-evaluation of normative beliefs and social narratives, encouraging a shift[36] from a stigmatizing perspective to one that recognizes and values the humanity and complexity of every individual (Aaltola, 2014). Leng et al. (2020) further emphasize that empathy not only involves understanding and sharing the feelings of others but also includes components like moral identity and social self-efficacy, which are crucial for effectively engaging in prosocial behaviors within these communities. This dynamic underscores the importance of cultivating environments where empathy is paired with strong social skills and moral understanding to foster genuine and supportive interactions. The

[36] "It is particularly the movement between oneself and the other that allows for deeper moral awareness to arise: one is sparked to re-evaluate one's own preconceptions concerning the world, other individuals and one-self, and to ultimately reconsider one's normative beliefs. This room for alteration and change renders openness and other-directedness ever more potent, as one is willing to adjust one's beliefs in response to the other; that is, one becomes open and other-directed also on the level of 'meta-experience'" (Aaltola, 2014, p. 252).

bonds formed through empathetic interactions can significantly contribute to the strengthening of community ties and the collective resilience.

Resilience in social connection

In the context of public health and SGM populations, resilience is not merely a personal trait but a collective attribute made possible through social connections and community support (Edwards et al., 2023). Health initiatives that bolster social connections are pivotal in nurturing this resilience, providing SGM individuals with resources that are not just economic but deeply relational and emotional (Edwards et al., 2023). They create inclusive spaces that allow for meaningful engagement and access to various forms of community enrichment, which are crucial for fostering a sense of belonging, acceptance, and connection. The significance of social connection as a resource extends beyond mere interpersonal interaction between two people or more (e.g., Patten et al., 2020; Platteau et al., 2020; Power et al., 2018); it influences individuals' feelings of joy, safety and support, and identity affirmation (Edwards et al., 2023). For example, Race et al. (2016) noted that sexual health and drug treatment programs are most effective when they non-judgmentally validate diverse sexual and drug preferences and support gay men in safely managing sex and drug use while maintaining their social relationships. For other SGM populations, engaging with others provides a crucial link to their authentic selves, alleviating feelings of loneliness and frustration often exacerbated by social or familial rejection (Edwards et al., 2023). These connections, whether in-person or online, can offer warmth and a sense of community belonging that is essential for mental and emotional well-being.

Moreover, the role of social connections and their impact on resilience is evident in broader settings where social norms around drug use and harm reduction are negotiated. Different social groups have varied perceptions of what risks and harms are acceptable, which in turn influence their practices around planning and harm reduction (Savic et al., 2022). For SDU, pleasure plays a significant role in the discussion of resilience and social connection and emerges as a key desirable effect (e.g., Lea et al., 2019; Schroeder et al., 2022; and Stanton et al., 2022). It also enhances social experiences through embodied sensations and the freedom to express oneself, such as dancing and socializing freely (Savic et al., 2022). Recognizing and incorporating the element of pleasure in public health efforts can lead to more engaging and effective interventions.

This approach suggests a shift from focusing solely on individual behaviors or negative outcomes to acknowledging the complex interplay of socio-cultural and material elements that contribute to health outcomes (Savic et al., 2022). Thus, public health efforts that prioritize particular assemblages – a grouping of heterogeneous elements (human actors, material objects, ideas, and technologies) that influence and produce social phenomena – that result in positive outcomes like harm reduction engagement and social connection can have a more profound impact than those focusing on individual elements alone. Approaches that integrate systems thinking and place-based strategies could provide valuable insights for designing interventions that cultivate resilience through enriched social connections and the acknowledgment of pleasure alongside harm (Savic et al., 2022).

Appendix I: Semi-structured interview guide

Start

Before we start with the interview, I would like to remind you that you can refuse to answer any questions you don't want to, take a break, or ask for more clarification. Thank you again for agreeing to participate in this study. Are you ready to begin?

- *WARM UP/Background questions*: Before we get deeper into the conversation, I just wanted to hear more about your [LGBTQ] identity and your current romantic or *sexual* interests.

  [Alternate Language]: To begin, I have a couple of questions about your relationship and sexual background and identities:
  - How would you describe your sexual orientation?
  - What is your gender identity(s)?
  - Are you in a relationship? With whom (gender)? And how long?
  - Are you sexually active with men, women, both, or people of other gender identities?

- I also was curious about your HIV/STI status and practices around safer sex and *if that's okay*:
  - Have you had any sexually transmitted infections/STDs in the past 12 months?
  - Have you ever had an HIV test? Or what is your HIV status?
    - When was your most recent HIV test?
    - What was the result of your most recent HIV test?
  - Are you currently using antiretroviral therapy/treatment (including PreP/TasP)?

Sexual partners

Now we are going to move on to questions about how you meet sexual partners and your experiences with sexual partners.

- How do you typically meet up with partners?
  - How do you arrange sex or plan for it with other partners? (How do you find partners and communicate with them when planning a session?) (Probes: **Online**? Offline?)
    - Have you ever used **online mobile social networking applications**? Why?
      - If not, how do you normally keep in touch with your partners? Why?

- **Can you tell me about your most pleasurable experience with a partner(s)?** (Probes: How would you describe that experience? What did you like about it? What turned you on? What do you enjoy about these experiences?)

Drug use and sexual activity

We are now going to move on to questions about the specific drugs/substances you use, how they're used in your sexual activity, and the experiences you have with (and without) them.

- When you are right about to have sex or during sex, what is/are your drug(s) of choice? (Probes: what drugs do you use regularly?)
    - How do you take them? (Probes: slamming/injecting, smoking, snorting, ingesting?)
    - On what occasions do you use those drugs/substances? (Probes: How do you decide on what to use? What do those drugs do for you? what do you enjoy about them/it?)

- ***Do you use drugs before or during sex? How often?***
    - Tell me about experiences you have had when you used drugs for sex:
        - (Probes: When was it? Where were you? What was it like? What did you do? What kind of sex did you have? Who was involved? How were they involved?)
        - **What is the best thing about using drugs during sex?**
            - Which drugs are the best for sex? (Probe: what do you enjoy about them/it? How do these drugs benefit you?)
    - **How do you think drugs allow you to do or feel things you would not do or feel otherwise if you were not using?**
        - (Probe: (How) do you think drugs help you form connections with other partners?)

<u>Personal experience</u>

I wanted to now ask a few questions about your most recent experiences.

- **Describe the last time that you had SDU/chemsex/partied.**
    - How was that or how did it go? (What did y'all do?)
    - What was the physical setting or space like? What time and how long?
    - Was it a very positive experience? Or a negative one? (Why?)
- How have other partners experienced SDU/chemsex from your perspective?

<u>Harm reduction and health</u>

The next group of questions ask particularly about your sexual health, particularly around safer sex practices and any other strategies that you practice to reduce harm related to the drugs you use.

- **How do you and your partners talk about protecting yourself during sex and using drugs?**
    - Are there any strategies that you and your partners practice during SDU?
- **How do you manage your sexual health, particularly around STIs/HIV?**
    - With partners? How does your sexual network approach HIV and STI prevention?

- [ONLY IF NOT COVERED YET] How does engaging in drug use and sex/chemsex make you feel?
    - Physically during and after.
    - Wellbeing during and after.
    - Motivation

- **How do you approach safer sex when sober or not under the influence of [drug]?**
    - Is your safer sex planning different? What about your safer sex practice? Why?

- Are there any negative experiences when you use drugs for sex?
- What do you do to address any of the bad effects of those drugs you use during sex?
    - Before? During? After?

- What role, if any, do you think substance use (during sex?) plays in acquiring any STI?
    - **What are some good prevention messages (advice) you like or practice?**
        - Are there any facilitators or challenges around actually following them?
            - Probe: Is there someone, someplace, or a way that would have been best to communicate prevention messages to you? (Partners, place of sexual activity, peer communication?)

    - What are your words of wisdom or other things that would have helped you and others in your shoes to help avoid getting STIs/HIV?

<u>Knowledge and perceptions</u> *(if there's enough time)*

- What is your relationship with SDU/chemsex? (what is it to you?)
    - Probe: Where are you at with it? (Why do you engage in it?)
- **What do you think folks in your community (e.g., queer, gay, etc.) generally think of it?**
    - **Probe: What do you think SDU/chemsex *does* for you? For the community?**
- *What do you want people who don't use/involve drugs during sex to know?*

<u>End</u>

Before the ending the interview with some basic background questions, is there anything else you would like to add or would like to share with me?

- How old are you? (years)
- Were you born in the U.S.? If No, where?
- Ethnically, how do you primarily identify as?
    - Do you consider yourself unmixed? If not, mixed with?...
- Where do you live? (town/city)
- With whom do you live?
- What is the highest level of education that you have completed or currently pursuing?
- What kind of work do you do/did you do?

If you have any questions about the research project after you leave today (or later on), you have the project/my contact information in the consent form. Thank you for your time!

Appendix J: Adapted Brief Assessment of Capacity to Consent

1. What is the purpose of the study that was just described to you?	
Response (2 = Study STI/HIV prevention and harm reduction strategies/practices when drugs/substances are used for/in sex)	Score
	0
	1
	2

2. Do you have to be in this study if you do not want to participate?	
Response (2 = No)	Score
	0
	1
	2

3. If you participate in this study, what will you be asked to do?	
Response (2 = answer questions)	Score
	0
	1
	2

4. Please describe the risks or discomfort that people may experience if they participate in this study.	
Response (2 = Both: Questions that make you feel uncomfortable or upset and breach of confidentiality)	Score
	0
	1
	2

5. Please describe a possible benefit of this study.	
Response (2 = Societal/public health benefits)	Score
	0
	1
	2

6. Will participating in this study directly benefit you?	
Response (2 = No)	Score
	0
	1
	2

Appendix K: Information Sheet

Study Title: Exploring Sexualized Drug Use, Sexual Behaviors, and Substance Use Among Sexual and Gender Diverse People: A Qualitative Study

Who is conducting the research study?

Daryl Mangosing (Student Investigator) and Mark Fleming (Principal Investigator) at the University of California, Berkeley are conducting the study.

What is the study about?

The purpose of this research study is to explore how sexual and gender diverse people who engage in sexualized drug use (SDU) practice STI/HIV prevention and other harm reduction strategies with partners in their sexual network. We also seek to understand the role of engaging condomless sex and using online social networking applications in SDU.

Am I eligible for the study?

People who are 18 years or older, verbally fluent in English, able to participate in a 60-90 minute interview, explicitly identify as a sexual and/or gender minority or queer, and are currently or recently engaged in any sexualized drug use activity are invited to participate.

What does the research involve?

Participation in this study involves one 60-90 minute interview. The interview will include questions around your personal experiences with sexual partners, the drugs you may use before or during sex and how you feel, and risk and harm reduction strategies you practice. You will be compensated with $30 via online money transfer mobile app, (Venmo, Square Cash, PayPal, Zelle, Apple Pay, or Google Pay) or as a $30 prepaid virtual or physical gift card. These procedures are also voluntary, and you may change your mind at any time.

Do I have to participate in the study?

No, research studies include only people who choose to take part. Participating in this study is entirely voluntary and will have no bearing on your employment. If you decide to participate, you may stop the interview at any time.

To learn more or to participate

Please email or call Daryl Mangosing, MPH at d.mangosing@berkeley.edu or 1-714-3948236.

Appendix L: Resource Handout

1. HIV support services
2. HIV medical care
3. Mental health support services
4. Substance use support services

HIV Support Services

AIDS Project of the East Bay (APEB):
Provides medical case management, mental health services, housing and financial assistance, food pantry services to HIV-positive men and women in Alameda County.
8400 Enterprise Way, Oakland 94621
(510) 663-7979
HTTP://WWW.APEB.ORG/

AGUILAS:
Support groups, social gathering events, free one-on-one counseling, and HIV testing (every Wednesday, 1-5pm) for Latino men who have sex with men.
SF LGBT Center, 1800 Market St., 4th Floor, Rm. 403, San Francisco, 94102
For HIV testing and appointments: (415) 558-8403
HTTP://SFAGUILAS.ORG/

Rafiki Coalition on AIDS:
Case management/counseling, health education, support groups, alternative medicine, STD/HIV testing, and health screening for men and women of the Black community.
601 Caesar Chavez Street, San Francisco, 94124.
(415) 615-9945
RAFIKICOALITION.ORG

Most Holy Redeemer AIDS Support Group:
Provides practical and emotional support to people with HIV/AIDS. No charge, open to all.
100 Diamond St., San Francisco, 94114.
(415) 863-6259
HTTPS://WWW.MHR.ORG/MINISTRIES/COMMUNITY-LIFE/MHR-AIDS-SUPPORT-GROUP-ASG/

Pacific Center:
Provides individual, family, and group therapy services; HIV counseling, peer support groups, and youth programs.
Monday through Friday: 9:00 a.m. – 9:00 p.m.

2712 Telegraph, Berkeley, 94705.
(510) 548-8283
HTTPS://WWW.PACIFICCENTER.ORG/

Project Inform:
Treatment information and health advocacy for persons with HIV/AIDS and/or Hepatitis C.
273 Ninth Street, San Francisco, 94103
HIV Health Hotline (415) 558-9051 or toll-free (800) 822-7422

San Francisco AIDS Foundation:
Provides HIV/STD testing and counseling, HIV case management, financial counseling, needle exchange, support groups, interim and long-term housing services, and other direct social services. Offers services online or via video chat during the COVID-19 pandemic.
1035 Market St., San Francisco, 94103.
Client services (415) 487-8000
General information: (415) 487-3000
HTTP://WWW.SFAF.ORG/

Shanti:
Provides emotional and practical support services to individuals with HIV/AIDS.
730 Polk St., 3rd floor, San Francisco, 94109
(415) 674-4700
HTTP://WWW.SHANTI.ORG/

Tenderloin Area Center of Excellence (TACE) Health Clinic:
Provides health promotion, HIV/AIDS medical case management, medical and oral services, substance use and mental health treatment, social support groups, client navigation, outreach and linkage to care services.
Hours: Monday–Friday 9:00am to 4:00pm; closed Wednesday afternoons
730 Polk Street 4th floor., San Francisco, 94109
(415) 292-3400

HIV Medical Care

San Francisco Community Health Center (formerly API Wellness Center):
Offers a wide array of medical, mental health, education, and community services, including primary care, dental services, transgender health, behavioral health services, pre-exposure prophylaxis (PrEP)/post-exposure prophylaxis (PEP) for HIV, HIV and STI testing, and HIV treatment and care.
Tenderloin Clinic: 726 Polk St., 4th Floor, San Francisco, 94109
Castro Clinic: 1800 Market St. Suit 401 San Francisco, CA 94102

(415) 292-3400
HTTPS://SFCOMMUNITYHEALTH.ORG/

Berkeley Free Clinic:
General medical services, TB testing, dental services, peer counseling, and HIV/STD testing.
2339 Durant Ave., Berkeley, 94704.
Monday through Friday 3:00 p.m. - 9:00 p.m., Saturday 11:00 a.m. - 3:00 and Sunday 4:00 p.m. – 8:00 p.m.
(510) 548-2570 or (800) 625-4642

Castro-Mission Health Center:
Medical services for HIV-positive men.
3850 17th St., San Francisco, 94114.
By appointment only: (628) 217-5700

City Clinic:
Low-cost diagnosis and treatment of sexually transmitted diseases, as well as HIV testing and services.
356 Seventh St., San Francisco, 94103.
Appointment only: (415) 487-5500

Contra Costa HIV/AIDS Program:
Provides comprehensive services for people with HIV.
597 Center Ave., Suite 200, Martinez, 94553
(925) 313-6771

East Bay AIDS Center:
Provides comprehensive program of primary HIV care, case and medical management, and access to clinical trials.
3100 Summit St., 2nd Flr., Oakland, 94609
Appointment only: (510) 869-8400

Family Health Center:
HIV family clinic.
995 Portero Ave and 22nd St. Building 80, San Francisco 94110.
(415) 206-5252

Haight-Ashbury Free Medical Clinic:
Offers a wide range of medical and behavioral health services.
Integrated Care Center: 1735 Mission St., San Francisco, 94103
Haight Clinic: 558 Clayton Street

(415) 746-1940

Mission Neighborhood Health Center/ Clinica Esperanza:
Provides medical services for adults, women, children, and youth, including preventative and comprehensive primary care.
Main Clinic - 240 Shotwell St., San Francisco, 94110.
Info and appointments: (415) 552-3870. Excelsior Clinic- 4434 Mission St., San Francisco, 94112.
Info and appointments: (415) 406-1353. Valencia Clinic- 1647 Valencia St., San Francisco, 94110. Info and appointments: (415) 647-3666.
HTTP://WWW.MNHC.ORG/

Native American Health Center:
Provides medical services – including HIV care, dental, nutrition and fitness – to men, women, and children (not exclusive to Native Americans). 160 Capp St., San Francisco, 94110
2950 International Blvd, Oakland, CA 94601
HIV services (415) 621-8051. General information: (415) 521-1170
HTTP://WWW.NATIVEHEALTH.ORG/

Sister Mary Phillippa Health Center:
Provides quality, compassionate care to all persons with HIV infection and related diseases such as primary and sub-specialty care, primary case management, HIV treatment advocacy, and peer advocacy.
Monday through Friday, 8:30 a.m. to 4:30 p.m.
2235 Hayes St #5, San Francisco, CA 94117
(415) 750-5500

Southeast Health Center:
Provides care for sexually transmitted infections, confidential HIV testing and counseling, and care for common illnesses. 2401 Keith St. San Francisco 94124
(415) 671-7000

South of Market Health Center:
Provides compassionate, comprehensive medical, dental, and podiatry services to individuals, children, and families.
229 7th St., San Francisco, 94103
(415) 503-6000
HTTP://WWW.SMHCSF.ORG
Westside Community Services:

Counseling, case management, education, medication and other services for individuals marginalized due to poverty, race, mental illness, substance abuse, HIV/AIDS and homelessness.
245 11th St. San Francisco, 94103
(415) 355-0311 Ext.12

Mental Health Support Services

Alliance Health Project:
Referrals, HIV testing and counseling, mental health assessments, support groups, and prevention services for HIV-positive and negative individuals.
Walk-In Intake Services: Monday, Wednesday, and Friday, 9:00 a.m. to 11:00 a.m.
1930 Market St., San Francisco, 94102
(415) 476-3902
HTTP://ALLIANCEHEALTHPROJECT.UCSF.EDU/

Bay Area Community Services (BACS) Thunder Road
24/7 residential programs across the Bay Area, addressing mental health and housing crises.
390 40th St., Oakland 94609
(510) 613-0330

Community Behavioral Health Services
Offers a full range of specialty Behavioral health services provided by a culturally diverse network of community Behavioral health programs, clinics and private psychiatrists, psychologists, and therapists. 1380 Howard St., San Francisco 94103
(415) 255-3737

Crisis Support Services of Alameda County
Services include a crisis hotline, on-going therapy groups, school-based counseling, supportive services for seniors, suicide prevention for youth, and community education.
Main Office: (510) 420-2460
Crisis hotline: 1-800-273-8255

Mental Health Association
A peer-run organization that approaches mental health in an integrated and holistic way.
San Francisco: 870 Market St. #928, San Francisco 94102 (415) 421-2926
Alameda County: 954 60th St. #10, Oakland, 94608. (510) 835-5010

South of Market Mental Health:
Provides eligibility assessments for city-run mental health services.
Drop-in assessments every Monday, Tuesday, Thursday, and Friday at 8:30 a.m. -10:30 a.m., and every Wednesday at 1pm-2:30pm.

760 Harrison St., San Francisco, 94107
(415) 836-1700

South Van Ness Adult Behavioral Health Services:
Provides mental health services for HIV-positive and transgender individuals currently receiving case management.
755 South Van Ness, San Francisco, 94110
(415) 642-4580

Substance Use Support Services

Alcoholics Anonymous (AA):
An international fellowship of men and women whose primary purpose is to stay sober and help others achieve sobriety.
1821 Sacramento St., San Francisco, 94109
For meeting information, call the AA hotline (415) 674-1821
HTTP://WWW.AASFMARIN.ORG/

Baker Places:
Provides residential, transitional residential and supportive community housing services for persons with mental health, substance use, and/or HIV/AIDS-related issues.
730 Baker St., San Francisco, 94115
(415) 567-1498

Castro Country Club:
Clean and sober gathering place for the gay community.
4058 18th St., San Francisco, 94114.
(415) 552-6102

Harm Reduction Therapy Center:
Provides non-judgmental approach to helping substance users reduce the negative impacts of drugs and alcohol in their lives.
45 Franklin St., Suite 320, San Francisco, 94102.
(415) 863-4282 Ext.2

Millennial Drug Rehab & Alcohol Detox San Francisco
Offers inpatient rehabilitation and recovery from a range of drugs and alcohol.
321 Divisadero St. STE 37, San Francisco 94117
(760) 292-3523

San Francisco Area of Narcotics Anonymous:

Provides recovery from the effects of addiction through working a twelve-step program.
NA hotline: (415) 621-8600
HTTP://WWW.SFNA.ORG/

The Stonewall Project:
Offers alternative harm reduction-based treatment to men who have sex with men with drug and alcohol problems.
1035 Market St., Suite 400, San Francisco, 94103.
Enrollment info: (415) 487-3100

SF AIDS Foundation
Safe injection supplies
415-241-5100

Walden House
Serving Clients with mental health and substance use disorder issues through residential and outpatient services.
815 Buena Vista Ave W., San Francisco, 94117
(415) 762-3705
Financial/ Food/ Housing Support Services
Positive Resource Center/ AIDS Emergency Fund*:*
Provides comprehensive benefits counseling and employment services for individuals with HIV/AIDS.
Client hours Monday through Friday 10:00 a.m. - 12:30 p.m. and 1:30 – 4 p.m.
170 9th St, San Francisco, 94103
(415) 558-6999
HTTP://WWW.AEF-SF.ORG/

AIDS Housing and Information Project:
Offers information and referrals on housing, health, and human services to both providers and people living with HIV/AIDS, with information provided in both English and Spanish. (510) 537-2600 or toll free (877) 424-3746

California Lifeline Program:
Offers free phones and service for low-income households.
1-866-272-0349
Email: CaLLAdminOversight@cpuc.ca.gov
Conard House:
Offers residential treatment and supportive housing for individuals with chronic medical conditions.
Administrative offices: 1385 Mission St., Suite 200, San Francisco, 94103

(415) 864-7833

Glide Daily Free Meals Program:
Serves free meals three times daily, 364 days a year.
Breakfast 8:00 a.m. – 9:00 a.m., Lunch Noon-1:30 p.m., Dinner 4:00 p.m.-5:30pm.
330 Ellis St., San Francisco, 94102.
(415) 674-6040

Next Door:
Transitional shelter focused on case management for homeless individuals. Bed available for one night or long-term (90 days) through CHANGES system.
1001 Polk St., San Francisco, 94109.
(415) 292-2180

Project Open Hand:
Provides homemade meals and groceries to people living with HIV/AIDS, the homebound critically ill, and seniors.
730 Polk St., San Francisco, 94109
Community Nutrition Program: (415) 447-2300
Grocery Center: (800) 551-6325
HTTP://WWW.OPENHAND.ORG/

Appendix M: Verbal Informed Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

Exploring Sexualized Drug Use (SDU), Sexual Behaviors, and Substance Use Among Sexual and Gender Diverse People: A Qualitative Study

Key Information

- You are being invited to participate in a research study. Participation in research is completely voluntary.
- The purpose of the study is to explore how sexual/gender diverse people practice STI/HIV prevention and other harm reduction strategies and the role of online social networking applications, particularly when any substances or drugs are used during or for sexual activity.
- The study will take a total of one hour to one hour and a half (60-90 minutes), and you will be asked to read the consent form and answer questions about it.
- Risks and/or discomforts may include the risk of breach of confidentiality and sensitivity around being asked details about your sexual activity and health and any substance/drug use.
- There is no direct benefit to you. The results from the study may help public health professionals learn more about and promote sex-positive, harm reduction strategies to reduce risks associated with condomless sex and problematic substance use for people who engage in any SDU.

Introduction

My name is Daryl Mangosing and I am a graduate student at the University of California, Berkeley, working with my faculty advisor, Professor Fleming and Co-Investigator, Professor van Dommelen Gonzalez in the School of Public Health. I am planning to conduct a research study, which I invite you to take part in.

You are being invited to participate in this study, because you identify as a sexual/gender diverse person, indicated engaging in SDU, and either expressed interest in learning more about the study from my communication with you from an online social networking app/website or have been referred by a participant.

Purpose

The purpose of this study is to explore how sexual and gender diverse people who engage in SDU practice STI/HIV prevention and other harm reduction strategies with partners in their sexual network. We also seek to understand the role of engaging condomless sex and using online social networking applications in SDU.

Procedures

If you agree to be in this study, you will be asked to do the following:

- I will conduct an interview with you. The interview will involve questions about your personal experiences and interactions with partners within your sexual network, the substances/drugs you may use before or during sex and how you feel, and harm reduction or other risk reduction strategies you may practice in that context. It should last about 60-90 minutes.

- With your permission, I will make an audio recording and take notes during the interview. This is to accurately record information you provide and will be used for transcription purposes only. If you choose not to be recorded, I will take notes instead. If you agree to being recorded but feel uncomfortable at any time during the interview, I can turn off the recorder at your request. Or if you don't wish to continue, you can stop the interview at any time.

Study time:

Your study participation in this interview will take a total of approximately 60-90 minutes (1-1½ hours). Again, you may stop or pause the interview (for breaks or anything else) at any time.

Study location:

The interview will take place on the phone, video (Berkeley Zoom), in a private location of your choosing (e.g., office, your home, etc.), or in a community setting of your choosing (park, café, etc.).

Benefits

There will be no direct benefit to you from participating in this study. However, the information you give us may help public health professionals learn more about and promote sex-positive, harm reduction strategies to reduce sexual health- or substance use-related risks for people who engage in any SDU.

Risks/Discomforts

- Some of the interview questions may make you uncomfortable or upset. You are free to decline to answer any questions you don't wish to answer, or to stop the interview at any time. Since these are sensitive topics, you will be receiving a list of resources to attend to your needs.
- **Breach of confidentiality:** As with all research, there is a chance that confidentiality could be compromised. Your employability/insurability/reputation could be impacted by a breach

of confidentiality regarding your HIV status, drug use, sexual orientation/gender identity, or other personal information. However, we are taking precautions to minimize and prevent this risk.

Confidentiality

Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used.

To minimize the risks to confidentiality, we will do the following:

- For voice recordings, a transcription company, Rev.com, will type a transcription into a computer of what's recorded and will remove any mention of names. The sound recording will then be destroyed within 4 months after the transcription is complete.
- For interviews occurring over Berkeley Zoom, you can turn off your video at any time. Only the audio of the interview will be saved, and all names will be changed to protect your privacy.
- Your research records, including voice recordings and notes, will be stored in an encrypted format and on a HIPAA-compliant service called Berkeley Box or Calshare.
- Daryl Mangosing, Mark Fleming, and Evan vanDommelen-Gonzalez will be the only people to have access to your study records.

Identifiers will be removed from any identifiable private information. After such removal, the information could be used for future research studies or distributed to other investigators for future research studies without additional informed consent from the subject or the legally authorized representative.

Your personal information may be released if required by law. Authorized representatives from the following organizations may review your research data for purposes such as monitoring or managing the conduct of this study: University of California

If you tell me that you intend to hurt yourself or others, or about child or elder abuse, I am ethically compelled to disclose this information.

Future use of study data:

When the research is completed, I may save the records for use in future research done by myself or
others. I will retain this study information for up to 5 years after the study is over. The same measures described above will be taken to protect confidentiality of this study data.

Compensation

You will receive $30 through your choice of payment method by the end of the interview: either peer-to-peer money transfer mobile app, specifically Cash App, Zelle, Apple Pay, or Google Pay; or as a $30 prepaid virtual or physical gift card. Your compensation will be distributed by app, email, or mail before or by the end of that day at the latest, depending on your preference. Your email or mailing address will not be stored after the gift card is sent to you.

Costs

You will not be charged for any of the study activities.

Rights

Participation in research is completely voluntary.

You have the right to decline to participate or to withdraw at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

Questions

If you have any questions or concerns about this study, you may contact Mark Fleming and Daryl Mangosing through Daryl's contact information at 714-394-8236 or d.mangosing@berkeley.edu.

If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510642-7461 or subjects@berkeley.edu.

****

CONSENT

If you agree to participate in this research study, please say so. We will give you a copy of this form to keep for future reference.

_____ _____

Signature of Investigator/Person Obtaining Consent Date

Appendix N: Retroactive Informed Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

Exploring Sexualized Drug Use (SDU), Sexual Behaviors, and Substance Use Among Sexual and Gender Diverse People: A Qualitative Study

Key Information

- You are being invited to participate in a research study. Participation in research is completely voluntary.
- The purpose of the study is to explore how sexual/gender diverse people practice STI/HIV prevention and other harm reduction strategies and the role of online social networking applications, particularly when any substances or drugs are used during or for sexual activity.
- You will be asked to read the consent form and answer questions about it.
- Risks and/or discomforts may include the risk of breach of confidentiality and sensitivity around being asked details about your sexual activity and health and any substance/drug use.
- There is no direct benefit to you. The results from the study may help public health professionals learn more about and promote sex-positive, harm reduction strategies to reduce risks associated

Introduction

My name is Daryl Mangosing and I am a graduate student at the University of California, Berkeley, working with my faculty advisor, Professor Fleming and Co-Investigator, Professor vanDommelen Gonzalez in the School of Public Health. I am planning to conduct a research study, which I invite you to take part in.

You are being invited to retroactively participate in this study, because you previously consented to and participated in an in-depth interview I conducted for a previous class project in spring 2022. I had asked your permission to retain your contact information in anticipation of reaching out to you to get your informed consent to allow me to use your interview transcript for research.

Purpose

The purpose of this study is to explore how sexual and gender diverse people who engage in SDU practice STI/HIV prevention and other harm reduction strategies with partners in their sexual network. We also seek to understand the role of engaging condomless sex and using online social networking applications in SDU.

Benefits

There will be no direct benefit to you from participating in this study. However, the information you give us may help public health professionals learn more about and promote sex-positive, harm reduction strategies to reduce sexual health- or substance use-related risks for people who engage in any SDU.

Risks/Discomforts

- Since these are sensitive topics, you will be receiving a list of resources to attend to your needs.
- **Breach of confidentiality:** As with all research, there is a chance that confidentiality could be compromised. Your employability/insurability/reputation could be impacted by a breach of confidentiality regarding your HIV status, drug use, sexual orientation/gender identity, or other personal information. However, we are taking precautions to minimize and prevent this risk.

Confidentiality

Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used.

To minimize the risks to confidentiality, we will do the following:

- For your voice recordings, Daryl Mangosing will either have typed or will complete the transcription into a computer of what's recorded and will remove any mention of names. The sound recording will then be destroyed within 4 months upon finalizing the transcription and checking for accuracy.
- Your research records, including voice recordings and notes, will be stored in an encrypted format and on a HIPAA-compliant service called Berkeley Box or Calshare.
- Daryl Mangosing, Mark Fleming, and Evan vanDommelen-Gonzalez will be the only people to have access to your study records.

Identifiers will be removed from any identifiable private information. After such removal, the information could be used for future research studies or distributed to other investigators for future research studies without additional informed consent from the subject or the legally authorized representative.

Your personal information may be released if required by law. Authorized representatives from the following organizations may review your research data for purposes such as monitoring or managing the conduct of this study: University of California

Future use of study data:

When the research is completed, I may save the records for use in future research done by myself or
others. I will retain this study information for up to 5 years after the study is over. The same measures described above will be taken to protect confidentiality of this study data.

Compensation

You will receive no additional compensation for consenting to use your transcript for this research.

Costs

You will not be charged for any of the study activities.

Rights

Participation in research is completely voluntary.

You have the right to decline to participate or to withdraw at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

Questions

If you have any questions or concerns about this study, you may contact Mark Fleming and Daryl Mangosing through Daryl's contact information at 714-394-8236 or d.mangosing@berkeley.edu.

If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510642-7461 or subjects@berkeley.edu.

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CONSENT

If you agree to participate in this research study, please say so. We will give you a copy of this form to keep for future reference.

_____ _____

Signature of Investigator/Person Obtaining Consent Date