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DELINEATING SOCIO-BEHAVIOURAL PATTERNS, COMMUNITY DYNAMICS AND HEALTH IMPACTS ASSOCIATED WITH CHEMSEX AMONG MEN WHO HAVE SEX WITH MEN IN NEW DELHI

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ABSTRACT

BACKGROUND. Chemsex, involving intentional psychoactive substance use to enhance sexual experiences, poses significant health risks to men who have sex with men (MSM). In India, limited research exists on chemsex dynamics within MSM communities, particularly in stigmatized urban settings like New Delhi.

OBJECTIVE. This study explored socio-behavioural patterns, community dynamics, and health impacts associated with chemsex among MSM in New Delhi, investigating motivations, practices, risk behaviours, and support needs.

METHODS. An exploratory qualitative study was conducted from April 2022 to June 2023 following COREQ guidelines. Twenty-one MSM participants aged ≥18 years who engaged in chemsex within six months were recruited through snowball sampling. Data were collected via semi-structured telephone interviews (n=15) and anonymous Google Forms (n=6). Thematic analysis identified patterns in experiences and health outcomes.

RESULTS. Chemsex initiation typically occurred in social settings and was episodic. Participants reported using crystal methamphetamine, MDMA, heroin, and cocaine, often combined with alcohol as a social/contextual precursor. High-risk practices included needle sharing and unprotected sex, increasing HIV and hepatitis transmission risks. Violence including robbery and sexual assault was reported. Significant health impacts included deteriorating physical health, increased anxiety, guilt, and regret. Privacy concerns and social stigma led to concealment of behaviours. Strong peer pressure influenced engagement, while quit attempts were frequently unsuccessful due to addiction complexities and inadequate support systems.

CONCLUSIONS. Chemsex among MSM in New Delhi involves complex psychosocial dynamics with severe health consequences. Urgent implementation of harm reduction strategies, accessible mental health services, and non-judgmental healthcare approaches is essential to address this vulnerable population's needs.

Keywords: *sexual behaviour, chemsex, mental health, substance use*

INTRODUCTION

The World Drug Report 2024 states that in 2022, an estimated 292 million people used illicit drugs, marking a 20% increase over the past decade (1). Among them, 228 million were cannabis users, followed by 60 million opioid users, 30 million amphetamine users, 23.5 million cocaine users, and 20 million ecstasy users worldwide. Additionally, 64 million people were affected by drug use disorders, with most cases linked to harmful patterns of cannabis and opioid use. Opioid use, however, has more severe health consequences, accounting for 71% of healthy years of life lost due to drug use and 69% of global overdose deaths in 2019 (2). Injecting drug use further poses significant health risks, particularly for the transmission of HIV and hepatitis B & C.

In India, data on substance abuse is alarming. The National Survey on Extent, Pattern, and Trends of Substance Use 2018 estimated that 47.7 million people aged 10-75 years used illicit drugs, including 9.8 million aged 10-17 (3). Additionally, 854,296 people are People Who Inject Drugs (PWIDs), with 86,909 in New Delhi alone. These figures highlight the significant risks posed by substance use, particularly for young adolescents, affecting their growth and development (3). The research notes that Indian PWIDs prefer injecting opioids like heroin, buprenorphine, amphetamine, and sedatives. 46% of PWIDs regularly inject heroin, with some using prescription opioids like Tramadol. Most PWIDs inject frequently, with 49% injecting daily and 18% injecting 4-6 times a week. High-risk behaviours are common, with 27% sharing needles and 50% reusing their own needles. This leads to severe health issues – one-third report venous problems, and 28% develop ulcers or abscesses. This data underscores the urgent need for targeted interventions to address the physical and mental health risks of drug use (3).

Chemsex is an emerging concern in the men who have sex with men (MSM) community, involving substance use to enhance sexual pleasure and prolong encounters (4). Although a small percentage of MSM engage in chemsex, it is linked to high-risk behaviours (4). Common drugs used in chemsex in Southeast Asia include crystal meth, gamma-hydroxybutyrate (GHB), methylenedioxymethamphetamine (MDMA, Ecstasy) ketamine, poppers, and cocaine, often mixed with alcohol (5). Chemsex is driven by the desire for pleasure, belonging, and coping with stress (6). The MSM community faces higher risks of depression, intimate partner violence, unprotected anal sex, and increased vulnerability to

HIV/STIs (6-8). MSM generally show a higher prevalence of drug use compared to heterosexual males (6).

Psychosocial theories that link drug use to sexual risk often overlook the intentional use of drugs for sexual purposes (9). Among MSM, unprotected anal receptive intercourse (UARI) is the primary risk factor for HIV transmission (10). Male sex workers, especially in commercial settings, are particularly vulnerable to clients' demands for unprotected sex or drug use, often leading to group sex under the influence of drugs. Intimate partner violence (IPV) is another major issue, with studies showing high rates of psychological, physical, and sexual abuse in male-to-male relationships (11).The combination of drug/alcohol use and sexual intercourse among MSM in India is increasingly acknowledged as an essential public health problem, but the research which directly investigates chemsex is still scarce (8,12,13). The majority of the Indian studies have primarily dealt with substance use patterns among MSM over the entire country, or in some specific regions such as Chennai (14), Maharashtra (8) and Northeast India (15) or with the partner-level associations between drug use and condomless anal intercourse rather than chemsex as an isolated phenomenon. An online pan-India survey done by Sriperambudoori et al. (16) portrayed chemsex trends across gender and sexual orientation, which included where it happened, who the partners were, why drugs were used, and what negative things happened, for example, memory gaps, fear, or anxiety.

Though Marik et al. conducted a study that highlighted knowledge gaps in sexualized substance use among community health mobilizers in Delhi, it did not look into the practices and experiences of MSM who do chemsex (17). The Sriperambudoori (16) survey, on the other hand, was quantitative, not limited to MSM, and offered little insight into the socio-behavioral processes, community dynamics, and health-system interactions that impact chemsex experiences in particular urban MSM communities.

This qualitative study aims to cover this gap by conducting a detailed estimation of the life experiences along with an in-depth exploration of the lived experiences, motivations, risks, and the support needs of MSM engaged in chemsex in New Delhi.

It provided a nuanced understanding of the social pressures, stigma, and mental health challenges associated with this practice within a specific cultural context. The study also investigated the dynamics between drug suppliers and users, and the interpersonal interactions during chemsex, including the impact of financial constraints. Building upon existing research in India, this study aimed to delve deeper into these issues to recommend better health interventions for this population.

METHODOLOGY

Study Design. This study, was conducted to explore the chemsex behavior and community dynamics of MSM in New Delhi, and was reported following the COREQ (18) guidelines, from April 2022 to June 2023. The research first examined existing literature to find out the gaps and then proceeded to semi-structured interviews (n=15) and anonymous Google Forms (n=6) for data collection on the subject of chemsex. The same set of questions (Hindi/English) was used in both modes. Both semi-structured interviews and Google Forms responses were classified as 'textual data sources' and treated to identical analysis with initial mode-specific coding done to assess anonymity effects (Forms produced higher violence disclosure).

Study Participants. Snowball sampling, starting with community representatives, was carried out to recruit the participants, leading to the identification of theoretical saturation after 18 data sources (15 interviews + 3 Forms), with the last 3 Forms verifying the themes that had been already established (Guest et al., 2006) (19). The continuing recruitment resulted in a total of 21 participants when data saturation was attained. The screening phone calls were done ascertain eligibility. The choice of interview method was telephone (n=15) for most participants whilst others (n=6) were more comfortable expressing themselves by giving detailed answers through Google Forms. Tracking theme redundancy (Table 1) method was used to evaluate saturation across both modes. The recruitment process started off with two community seeds who were connected to MSM networks in Delhi. Peer referral was done of subsequent participants' recruitment until saturation was reached. Delhi was selected as the study site due it's diverse MSM ecology, the presence of a large number of dating-app users and the fact that the ethical approval jurisdiction was limited to the National Capital Territory.

Selection Criteria. Eligibility was assessed through screening calls. Participants were admitted if they were 18 years or older, self-identified as males, and, in accordance with NACO's MSM definition, had sexual contact with another male within the last six months. Participants had to confess to deliberate usage of psychoactive drugs, i.e., meth, MDMA, coke, or heroin to facilitate, enhance, or prolong the sexual experience in the last six months, as per the Indian cultural adaptations of chemsex (Sriperambudoori et al., 2025) (16), which are usually alcohol use context. Substance users had to disconnect their activity from timeframes of use and had to be currently participating in drug rehab programs or mentally incapacitated due to acute mental health conditions and hence could not give informed consent.

Conceptual Definition. The term chemsex referring to the study was the deliberate application of psychoactive drugs to support, amplify, or extend sexual encounters, and was separated from the general sexualized drug use (SDU). Cases of only-alcohol use were deemed non-chemsex; however, when the sexual enhancement was the main purpose and alcohol was a contextual precursor along with meth, MDMA, coke, or heroin, it was included. This delineation is typical of the Indian drug scene where natural drugs might serve the same function as chemsex (Sriperambudoori et al., 2025) (16).

Data Collection. Data were collected using in-depth interviews conducted either over phone calls or through answers collected through Google Forms to maintain anonymity, based on participant's availability and comfort. The interview questions were semi-structured which focused on the three major areas: community dynamics, interaction with the environment, and practices of drug use. It was developed in English, and translated into Hindi for ease of understanding. Google Forms were also used as an alternative tool, as participants were hesitant to participate in real-time discussions due to concerns about being outed. Participants were informed of their rights, and confidentiality was maintained throughout the study. Interviews were recorded with participants' consent, and notes were taken by the investigator to triangulate findings and ensure consistency in data collection. Figure 1 illustrates the structured process of data collection, outlining the steps involved in selecting interview methods and ensuring participant confidentiality.

Semi-Structured Tool Development. The interview tool was made up of 28 questions that were spread over five domains: (1) initiation and contexts of chemsex, (2) substances and sexual practices, (3) safety, violence, and coercion, (4) mental health and help-seeking, and (5) quitting attempts and service needs. Out of the total, 22 questions were open-ended whereas 6 were close-ended demographic items. The development of the tool was based on a combination of literature review and consultations with two MSM community advisors; its pilot testing was done with three participants and then the tool was further refined for language and sensitivity.

The lead interviewer is a public health researcher who is engaged with the community and who previously worked with LGBTQIA+ groups in Delhi. The design of the questionnaire was fortified by suggestions from MSM peer educators to lessen the outsider's bias and the use of stigmatizing language. Additionally, field notes were kept to help the researchers reflect on their positionality, assumptions, and the dynamics of power.

Data Analysis and Interpretation. The interviews were transcribed verbatim, anonymized, and translated into English. The analysis was conducted based on Braun and Clarke's six-step reflexive thematic analysis, which emphasizes inductive coding and

development of themes through iterations. The data analysis was conducted following the COREQ checklist, ensuring transparency and completeness in reporting interview-based qualitative studies. The steps included:

a) Familiarization with the data;
b) Coding for significant patterns or insights;
c) Identifying themes that captured key aspects of the participants' experiences;
d) Reviewing themes for consistency with the raw data;
e) Defining themes to align with the research questions and literature;
f) Final interpretation of the themes in light of existing research;
g) The themes identified were corroborated through peer debriefing and cross-checked with the literature for validation.

The transcripts from the interviews and the responses from the Google Forms were each coded separately at first to discover the patterns that are specific to each mode. The forms gave narratives that were shorter but at the same time, there was more revelation of violence and coercion. After the first coding, the datasets were combined for the development of themes; no unique themes emerged just from one mode, which supported the integrated analysis. Saturation was evaluated across the two modes by using redundancy tracking.

Ethical Considerations. Given the sensitive nature of the study and the marginalization of the population, strict ethical protocols were followed, with approval granted by the Jindal School of Public Health and Human Development's IRB. Participants were informed about the study's objectives, their rights, and confidentiality measures. Anonymity was maintained through participant codes (e.g., IDI 1), and verbal informed consent was obtained.

The ethical approval was received from the Institutional Review Board at the Jindal School of Public Health and Human Development. For the Google Forms, the first page had a digital participant information sheet; moving to the questionnaire required clicking "I consent to participate," which was taken to mean implied informed consent according to the ICMR 2017 (20) guidelines. The data were kept on drives that were protected by passwords and could be accessed by the research team only.

RESULTS

The study provides an in-depth exploratory perspective into the chemsex behaviours of MSM (n=21) in New Delhi. The study participants lived in New Delhi, where some had migrated from states of Uttar Pradesh (n=5), Haryana (n=4) and Uttarakhand (n=2) for work and the rest were born and brought up in New Delhi. They worked in different professional

roles across diverse sectors of creativity, corporates, and service-oriented professions. While living situations could be practically any, some participants live with parents or closely related family members, while others live independently. Of these, a smaller proportion said they shared with roommates or friends. The study highlights various aspects such as initiation patterns, privacy concerns, chemsex partners and access to drug safety issues, health impacts, social influences, motivations, practices of drug use, interactions with the environment, and challenges (Table 1). During the data collection process, two methods were implemented: telephone interviews and Google forms. Telephone interviews consisted of in-depth semi-structured interviews, as a result collecting responses very detailed and meaningful. Participants consented to participate in the study but stated they were uncomfortable in giving their responses on phone due to recording. Google form served such participants giving them a more private and anonymous way to participate in the study and record those responses. The same semi-structured questions were in English yet translated into Hindi to improve accessibility and inclusiveness. Data saturation was reached, ensuring that no new themes or insights were emerging by the conclusion of data collection.

Initiation and Frequency of Chemsex. The initiation of chemsex typically occurs in social settings, such as parties, where participants are first introduced to substances. These environments play a key role in the beginning of chemsex behaviours, often becoming part of the participants' social lives. However, chemsex is not a frequent activity for most participants; rather, it is an episodic occurrence, happening sporadically, sometimes once every few months.

Privacy and Secrecy. Privacy and secrecy are central to the chemsex experiences of participants. Many choose to keep their activities hidden from family and broader social circles due to fear of judgment and a lack of understanding. This secrecy often leads participants to handle chemsex-related issues independently, without seeking external support. The desire to avoid stigma further reinforces this pattern of self-reliance, as individuals aim to protect their personal privacy.

Chemsex Partners and Access to Drugs. Participants engaged in chemsex with a range of partners, from regular partners to casual acquaintances and, at times, in group settings. The accessing drugs varied, with participants obtaining substances from partners, party hosts, or purchasing them directly. These diverse sources reflect the fluid nature of drug access in chemsex environments, where social networks often facilitate substance acquisition.

Safety and Violence. Experiences of safety and violence during chemsex varied significantly. While some participants reported no encounters with violence, others experienced distressing situations, such as robbery, physical and sexual assault. Some

participants also reported of physical and sexual abuse from the dealers when they failed to pay due to financial constraints. This variation underscores the risks associated with chemsex, which include not only health risks but also personal safety concerns. Despite these dangers, many participants adapted their behaviours over time, becoming more cautious in response to the risks encountered.

Health Impacts. Health impacts emerged as a significant concern for participants, with many reporting a decline in physical health and an increase in anxiety. The psychological burden was also notable, as participants expressed feelings of guilt and regret following chemsex sessions. This combination of physical and mental health challenges underscores the urgent need for comprehensive health interventions that address both aspects.

Social Dynamics and Pressure. Social dynamics, particularly peer pressure, played a pivotal role in shaping chemsex behaviours. Participants described the difficulty of resisting chemsex when it was normalized within their social circles. However, some were able to maintain trust and respect within their relationships, indicating that social pressures, while significant, did not entirely dictate their behaviours. This highlights the complexity of the social environment in which chemsex occurs.

Motivations for Chemsex. The motivations for engaging in chemsex were multifaceted. Many participants sought enhanced sexual experiences and a temporary escape from the stresses of daily life. The pursuit of pleasure and relief from stress were recurring themes, though participants also reflected on the societal stigma associated with chemsex, which contributed to feelings of guilt. The deeper, more complex motivations for engaging in chemsex reflect the broader need for understanding and nuanced support.

Practices for Drug Use. The initiation of drug use within chemsex was influenced by curiosity, partner influence, or, in some cases, coercion. Drug consumption methods varied, with some participants using injectable and others snorting substances. Needle sharing was reported by a few participants, typically with their partners. The drugs used in chemsex included MDMA, crystal meth, heroin, and cocaine, sometimes combined into drug cocktails with substances like Viagra and alcohol. Different substances were reported by the users for the purpose of intentional sexual enhancement, heroin being one of them, 'Heroin helps me relax completely so I can go for hours' (IDI-5). The frequency of use ranged from weekly to occasional weekend use, and some participants reported experiencing overdoses, which were often managed with the help of friends or home remedies. Knowledge of the risks associated with drug use varied, with some participants aware of the dangers while others were less informed.

Interaction with the Environment. Participants' interactions with their environment during chemsex were diverse. While some had no recollection of altercations, others reported verbal or physical confrontations. Experiences of sexual abuse ranged from forced sex and extreme sexual activities to an absence of such incidents. The ability to recall these events also varied, with some participants having partial memory while others could fully recall their experiences. Legal troubles were generally minimal, as most participants reported engaging in chemsex in perceived safe environments.

Challenges in Quitting and Need for Support. The challenges of quitting chemsex were evident, with many participants having attempted to stop or reduce their involvement but finding it difficult. This struggle highlights the complexities of addiction and the significant role of social and psychological factors. The analysis also revealed a strong demand for supportive interventions, such as counselling or support groups, to help participants manage their behaviours and address the underlying issues driving their involvement in chemsex.

DISCUSSION

This qualitative study offers a nuanced understanding of the socio-behavioural patterns, community dynamics, and health impacts of chemsex among men who have sex with men (MSM) in New Delhi. While chemsex is increasingly reported across global urban centers, this study contributes uniquely by contextualizing the phenomenon in India, where stigma, family structures, and social taboos intersect with substance use and sexuality. The findings highlight not only the individual-level risks but also broader community vulnerabilities, echoing the syndemic framework that links HIV, substance use, and mental health disparities among MSM populations worldwide.

Comparison with Global Literature. Internationally, chemsex has been extensively studied in European and North American contexts. Studies from the UK indicate that up to 20-30% of MSM in London have engaged in chemsex in the past year, with methamphetamine, mephedrone, and GHB being the most common drugs used (21). The motivations reported, enhanced sexual pleasure, disinhibition, and coping with stress, closely mirror the themes identified in this study. Similarly, Australian research underscores that chemsex is often episodic, concentrated around weekends or social gatherings, and closely linked to high-risk sexual practices (22).

In Southeast Asia, evidence suggests growing chemsex prevalence among MSM, with crystal methamphetamine, ketamine, and MDMA widely reported (23). The parallels with the present study, particularly regarding episodic use, social initiation, and peer influence,

underscore that while the drugs vary regionally, the psychosocial dynamics of chemsex appear consistent across diverse settings. However, Indian MSM face unique challenges due to conservative socio-cultural environments and limited access to non-judgmental sexual health services（24）. In contrast to European chemsex mainly concerned with GHB/mephedrone, Delhi's MSM pattern has a mix of heroin taken with methamphetamine and cocaine, which is in line with a recent AIIMS survey (Sriperambudoori et al., 2025) (16). This reflects the Indian drug working model to some extent, although the drugs are still playing the same roles of improvement (long-lasting, disinhibition). Published literature on chemsex in India is limited and varies in methodology. Sriperambudoori et al. (16) have reported that one third of sexually active adults in India participated in chemsex and the commonly used drugs (methamphetamine, MDMA, poppers, and cocaine) associated with different places (homes, hotels, clubs), partner types, and different motivations such as pleasure and experimentation, and a variety of negative experiences including memory gaps, anxiety, and functional impairment. The findings of our study among MSM in New Delhi are largely consistent with these patterns but go further by bringing to the light the secrecy surrounding family and healthcare providers, peer pressure, economic dependence on dealers, experiences of robbery and sexual assault, and repeated but often unsuccessful attempts to quit, all of which are deeply rooted in the local socio-cultural context and contribute to the coupling of mental health and HIV-related vulnerabilities.

The Indian evidence is still in the early stages. The online survey of AIIMS provided a documentation of the national patterns and harms (Sriperambudoori et al., 2025) (16). A recent commentary from a clinician in Delhi brought attention to daily use among urban MSM and forthcoming psychiatric illnesses (Joseph et al.,) (25). The Alliance India policy brief (2022) indicated that 33% of MSM/TGW substance users were at a high risk of HIV infection along with poor access to integrated services (26). Our study, in contrast to these reports, presents for the first time extensive qualitative descriptions of coercive practices by dealers, financial exploitation, and quitting paths in the MSM networks of Delhi.

Health Risks and Syndemic Perspectives. The findings reinforce existing literature linking chemsex with elevated risks of HIV and other sexually transmitted infections (STIs). Condomless anal intercourse, needle sharing, and poly-substance use were reported, reflecting a high-risk cluster of behaviours. Global systematic reviews confirm that chemsex participants are more likely to acquire HIV and hepatitis C compared to non-participants（27）. In India,

where HIV prevalence among MSM is nearly double the national average, chemsex may act as a critical driver of transmission (28).

Beyond infectious diseases, participants described deteriorating physical health, anxiety, guilt, and social withdrawal. These outcomes align with evidence linking chemsex to depression, suicidality, and dependency syndromes（29）. The concept of "syndemics" is particularly useful here: chemsex does not occur in isolation but intersects with HIV risk, mental health burdens, and structural stigma, creating a compounded vulnerability (30).

Some participants talked of their sexual behaviors during the use of stimulants losing control and, hence, equated it to compulsive sexual behavior (CSB). The international studies consider the link between methamphetamine use, hypersexuality, and loss of inhibitory control; meanwhile, the CSB was not formally evaluated; however, the words "not being able to stop despite harm" do indicate an overlap and thus the need for clinical screening in future studies (Śniadach et al., 2025; Kuiper et al., 2017; 2020) (31-33).

Stigma, Privacy, and Secrecy. A striking theme was secrecy and reluctance to disclose chemsex behaviours to family or healthcare providers. This reflects India's socio-cultural climate, where same-sex relationships, though decriminalized, remain highly stigmatized. Similar patterns are observed in China and other Asian contexts, where MSM often avoid healthcare for fear of exposure (34). Such concealment contributes to delayed HIV testing, underreporting of drug use, and poor engagement with harm reduction services.

Violence, Safety, and Exploitation. Participants' accounts of robbery, coercion, and sexual assault during chemsex underscore the precariousness of these settings. Global reports also document cases of overdose, non-consensual sex, and criminal victimization during chemsex parties (35). The intersection of drug dependence and sexual exploitation reveals vulnerabilities not only to infectious diseases but also to interpersonal violence, often compounded by lack of legal recourse or fear of criminalization.

Motivations and Coping Mechanisms. The motivations for chemsex identified in this study such as seeking pleasure, relieving stress, and feeling a sense of belonging, align with broader literature on sexualized drug use（36）. Importantly, participants acknowledged guilt and regret post-chemsex, suggesting ambivalence and internal conflict. This duality is consistent with the minority stress model, which posits that marginalized populations may resort to maladaptive coping mechanisms, including substance use, in response to stigma and discrimination (37).

Barriers to Quitting and Support Needs. Despite recognizing risks, many participants struggled to quit or reduce chemsex engagement. This reflects findings from European studies, where MSM often report cycles of attempted abstinence and relapse (38). A lack of accessible, culturally competent support services emerged as a major gap. Counselling, peer-led groups, and harm reduction services tailored to MSM could address this unmet need (39).

Implications for Policy and Interventions. This study highlights urgent public health priorities. First, harm reduction services for MSM in India must explicitly address chemsex, integrating safe sex education, substance use counselling, and mental health support. Second, community-led initiatives, similar to those piloted in Southeast Asia, can provide safe spaces for MSM to access resources without stigma (40). Third, healthcare providers require training to adopt non-judgmental approaches, as judgmental attitudes currently deter MSM from disclosure and care-seeking.

Strengths and Limitations. A major strength of this study is its qualitative design, which captures lived experiences often overlooked in quantitative surveys. The use of anonymous Google Forms increased participation by reducing fear of stigma. However, limitations include the small sample size and focus on urban MSM in New Delhi, which may not represent rural contexts or other Indian states. Future research should incorporate mixed-method approaches, larger samples, and longitudinal follow-up to capture trajectories of chemsex engagement and cessation.

Future Research Direction: Implications of the STEPS framework. By following the COREQ guidelines, the study ensures transparency and rigor in reporting the methodology and results, while thematic analysis offers a structured way to interpret the lived experiences of MSM involved in chemsex. The findings emphasize the need for nuanced interventions addressing the physical, mental, and social dimensions of chemsex behaviours. Chemsex is driven by the desire for both heightened pleasure and stress relief, with significant roles played by social and peer influences. The combined information from the online survey conducted by Sriperambudoori et al., as well as the results of this research, suggests that MSM and other people who use chemsex in India will benefit from using an integrated, and contextualised, approach to harm-reduction related activities, including mental health and anti-stigma initiatives.

The STEPS framework was inductively developed based on thematic findings regarding violence, stigma, mental health impacts, and service barriers. The Support component corresponds to participants' repeated problems in quitting and lack of counseling services. Targeted awareness mirrors the extensive secrecy and misunderstandings surrounding

chemsex. Engagement in holistic health covers the mental and physical harms mentioned by the participants. The Policy for harm reduction component comes from the narrations of unsafe places and violence, while Sustainable MSM research denotes the limited India-based evidence that was brought up throughout the study. Instead of a prescriptive model, STEPS is presented as an interpretive guide based on the participants' lived experiences.

STEPS breakdown:

S – future studies will evaluate the efficacy of varied peer-support and counselling programs for MSM reducing/ceasing chemsex use, including both digital and community-based modalities.

T – research is needed concerning stigma, secrecy and misinformation affecting risk perception and help-seeking behaviours regarding chemsex in urban India.

E – longitudinal studies need to be done regarding the trajectories of mental and physical health consequences of chemsex usage (e.g., anxiety, sexually compulsive behaviours and substance dependency).

P – implementation studies need to examine the potential for adapting existing HIV and substance abuse services to promote safer chemsex behaviours in settings characterised by violence and criminalisation.

S – data from further multi-site qualitative and mixed methods studies is needed to explore the different chemsex behaviours occurring and to develop culturally appropriate intervention strategies.

The STEPS framework, therefore, serves not as a standalone intervention model but as an analytically grounded structure for organizing future research priorities emerging from the present study's findings.

CONCLUSION

Health impacts were notable, with many participants reporting deteriorating physical health and increased anxiety. These findings align with previous research linking chemsex to negative health outcomes. Feelings of guilt and regret further emphasize the psychological burden of chemsex. This underlines the urgent need for health interventions and support systems addressing both physical and mental health issues. Social dynamics and peer pressure play a significant role in shaping chemsex behaviour. Participants experienced substantial social pressure to engage in chemsex, reflecting broader patterns of social influence and normalization within their communities. The difficulty in resisting this pressure highlights the importance of social support and education in reducing chemsex behaviours. Participants were

motivated to engage in chemsex mainly to enhance sexual experiences and escape from everyday stress. This is consistent with existing literature on substance use in sexual contexts. The negative societal views on chemsex, combined with the desire for heightened pleasure and escape, reveal the complex motivations behind chemsex behaviour. The challenges of quitting chemsex were clear, with participants struggling to stop or reduce their involvement despite recognizing the difficulties and desiring change. This points to the complexity of addiction and the need for effective support mechanisms. The expressed need for counselling and support groups highlights a gap in available resources and underscores the importance of accessible and empathetic support for those seeking to address their chemsex behaviours.

REFERENCES

1. WDR_2024_SPI.pdf. [cited 2025 Sept 29]. Available from: https://www.unodc.org/documents/data-andanalysis/WDR_2024/WDR_2024_SPI.pdf
2. World drug report 2019. Vienna: UN, Office on Drugs and Crime; 2019 [cited 2025 Sept 29]. (World Drug Report). Available from: https://digitallibrary.un.org/record/3830902
3. BOOK ON 08.05.2019.cdr. [cited 2025 Sept 29]. Available from: https://socialjustice.gov.in/writereaddata/UploadFile/Survey%20Report.pdf
4. Maxwell S, Shahmanesh M, Gafos M. Chemsex behaviours among men who have sex with men: A systematic review of the literature. Int J Drug Policy. 2019 Jan;63:74–89.
5. resource-epic-chemsex-guide.pdf. [cited 2025 Sept 29]. Available from: https://www.fhi360.org/wp-content/uploads/drupal/documents/resource-epic-chemsex-guide.pdf
6. Bourne A, Weatherburn P. Substance use among men who have sex with men: patterns, motivations, impacts and intervention development need. Sex Transm Infect. 2017 Aug;93(5):342–6.
7. Tomori C, McFall AM, Srikrishnan AK, Mehta SH, Solomon SS, Anand S, et al. Diverse Rates of Depression Among Men Who Have Sex with Men (MSM) Across India: Insights from a Multi-site Mixed Method Study. AIDS Behav. 2016 Feb;20(2):304–16.
8. Wilkerson JM, Di Paola A, Rawat S, Patankar P, Rosser BRS, Ekstrand ML. Substance Use, Mental Health, HIV Testing, and Sexual Risk Behavior Among Men Who Have

Sex With Men in the State of Maharashtra, India. AIDS Educ Prev. 2018 Apr;30(2):96–107.

9. Melendez-Torres GJ, Bourne A. Illicit drug use and its association with sexual risk behaviour among MSM: more questions than answers? Curr Opin Infect Dis. 2016 Feb;29(1):58–63.
10. Kumar P, Aridoss S, Mathiyazhakan M, Balasubramanian G, Jaganathasamy N, Natesan M, et al. Substance use and risk of HIV infection among Men who have Sex with Men in India: Analysis of National IBBS data, India. Medicine (Baltimore). 2020 Aug 28;99(35):e21360.
11. Finneran C, Stephenson R. Intimate partner violence among men who have sex with men: a systematic review. Trauma Violence Abuse. 2013 Apr;14(2):168–85.
12. Bhambhani Y, Rawat S, Norton BL, Patel VV. Alcohol and Drug Use Surrounding Sex Among Men Who Have Sex with Men in India. Sexuality and Culture. 2021 Aug;25(4):1383–96.
13. Prabhu S, Mehta SH, McFall AM, Srikrishnan AK, Vasudevan CK, Lucas GM, et al. Substance use is associated with condomless anal intercourse among men who have sex with men in India: a partner-level analysis. BMC Public Health. 2022 Apr 11;22(1):722.
14. Solomon SS, Srikrishnan AK, Celentano DD, Johnson SC, Vasudevan CK, Murugavel KG, et al. The intersection between sex and drugs: a cross-sectional study among the spouses of injection drug users in Chennai, India. BMC Public Health. 2011 Jan 16;11:39.
15. Yadav J, Singh KJ, Gautam S. Correlates of substance use in Northeast States, India. International Journal Of Community Medicine And Public Health. 2016;3(6):1531–9.
16. Sriperambudoori V, Sarkar S, Dhawan A. An online study to understand chemsex in India. Indian Journal of Psychiatry. 2025; 67(5), 505-512.
17. Marik B, Mahajan N, Sarkar R, Mitra R, Dua R, Aggarwal S. A Qualitative Assessment among Personnel Working in Community-Led Development Program Settings Regarding Sexualized Substance Use. Brain Sci. 2022 Nov 21;12(11):1590.
18. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007 Dec;19(6):349–57.
19. Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. Field Methods, 2006; 18(1), 59–82. https://doi.org/10.1177/1525822X05279903

20. Indian Council of Medical Research. National ethical guidelines for biomedical and health research involving human participants. 2017 New Delhi Indian Council of Medical Research https://www.icmr.gov.in/icmrobject/custom_data/pdf/resource-guidelines/ICMR_Ethical_Guidelines_2017.pdf
21. Rogers ML, Chu C, Joiner T. The necessity, validity, and clinical utility of a new diagnostic entity: Acute suicidal affective disturbance. J Clin Psychol. 2019 June;75(6):999–1010.
22. Prestage G, Hammoud M, Jin F, Degenhardt L, Bourne A, Maher L. Mental health, drug use and sexual risk behavior among gay and bisexual men. Int J Drug Policy. 2018 May;55:169–79.
23. Wang H, Jonas KJ, Guadamuz TE. Chemsex and chemsex associated substance use among men who have sex with men in Asia: A systematic review and meta-analysis. Drug Alcohol Depend. 2023 Feb 1;243:109741.
24. Thomas B, Mimiaga MJ, Mayer KH, Perry NS, Swaminathan S, Safren SA. The influence of stigma on HIV risk behavior among men who have sex with men in Chennai, India. AIDS Care. 2012;24(11):1401–6.
25. Joseph AJ, Keerthana TL, Chandran S. Chemsex: Quiet revolution with loud risks. Indian Journal of Psychiatry. 2025; 67(10), 1021-1022.
26. Alliance India. Psychoactive Substance use & HIV risk among MSM, Transgender Women & Hijra Population in India. New Delhi.
27. Coronado-Muñoz M, García-Cabrera E, Quintero-Flórez A, Román E, Vilches-Arenas Á. Sexualized Drug Use and Chemsex among Men Who Have Sex with Men in Europe: A Systematic Review and Meta-Analysis. J Clin Med. 2024 Mar 21;13(6):1812.
28. Mehta SH, Lucas GM, Solomon S, Srikrishnan AK, McFall AM, Dhingra N, et al. HIV care continuum among men who have sex with men and persons who inject drugs in India: barriers to successful engagement. Clin Infect Dis. 2015 Dec 1;61(11):1732–41.
29. Field DJ, de Wit J, Davoren MP, O'Reilly EJ, Den Daas C. Chemsex, Anxiety and Depression Among Gay, Bisexual and Other Men Who have Sex with Men Living with HIV. AIDS Behav. 2023 Oct;27(10):3206–12.
30. Parsons JT, Rendina HJ, Moody RL, Ventuneac A, Grov C. Syndemic production and sexual compulsivity/hypersexuality in highly sexually active gay and bisexual men: further evidence for a three group conceptualization. Arch Sex Behav. 2015 Oct;44(7):1903–13.

31. Śniadach J, Orlof W, Sołowiej-Chmiel J, Kicman A, Szymkowiak S, Waszkiewicz N. Chemsex as a Diagnostic Challenge: Toward Recognition in ICD-12 and Integrated Treatment Approaches - A Narrative Review. J Clin Med. 2025;14(17), 6275.
32. Kuiper LB, Frohmader KS, Coolen LM. Maladaptive sexual behavior following concurrent methamphetamine and sexual experience in male rats is associated with altered neural activity in frontal cortex. Neuropsychopharmacology. 2017; 42(10), 2011-2020.
33. Kuiper LB, Lucas KA, Mai V, Coolen LM. Enhancement of drug seeking following drug taking in a sexual context requires anterior cingulate cortex activity in male rats. Front Behav Neurosci. 2020; 14, 87.
34. Pharr JR, Lough NL, Ezeanolue EE. Barriers to HIV Testing Among Young Men Who Have Sex With Men (MSM): Experiences from Clark County, Nevada. Glob J Health Sci. 2015 Nov 3;8(7):9–17.
35. Maxwell S, Shahmanesh M, Gafos M. Chemsex behaviours among men who have sex with men: A systematic review of the literature. Int J Drug Policy. 2019 Jan;63:74–89.
36. García-Pérez JN, Cañas-Ruano E, Navarro J, Raventós B, López L, Broto C, et al. Sexual behavior and drug use impact in gay, bisexual, and other men who have sex with men. Med Clin (Barc). 2022 Dec 23;159(12):563–8.
37. McConnell EA, Janulis P, Phillips G, Truong R, Birkett M. Multiple Minority Stress and LGBT Community Resilience among Sexual Minority Men. Psychol Sex Orientat Gend Divers. 2018 Mar;5(1):1–12.
38. Edmundson C, Heinsbroek E, Glass R, Hope V, Mohammed H, White M, et al. Sexualised drug use in the United Kingdom (UK): A review of the literature. Int J Drug Policy. 2018 May;55:131–48.
39. Maviglia F, Wickersham JA, Azwa I, Copenhaver N, Kennedy O, Kern M, et al. Engagement in Chemsex among Men Who Have Sex with Men (MSM) in Malaysia: Prevalence and Associated Factors from an Online National Survey. Int J Environ Res Public Health. 2022 Dec 24;20(1):294.
40. Strong C, Huang P, Li CW, Ku SWW, Wu HJ, Bourne A. HIV, chemsex, and the need for harm-reduction interventions to support gay, bisexual, and other men who have sex with men. Lancet HIV. 2022 Oct;9(10):e717–25.

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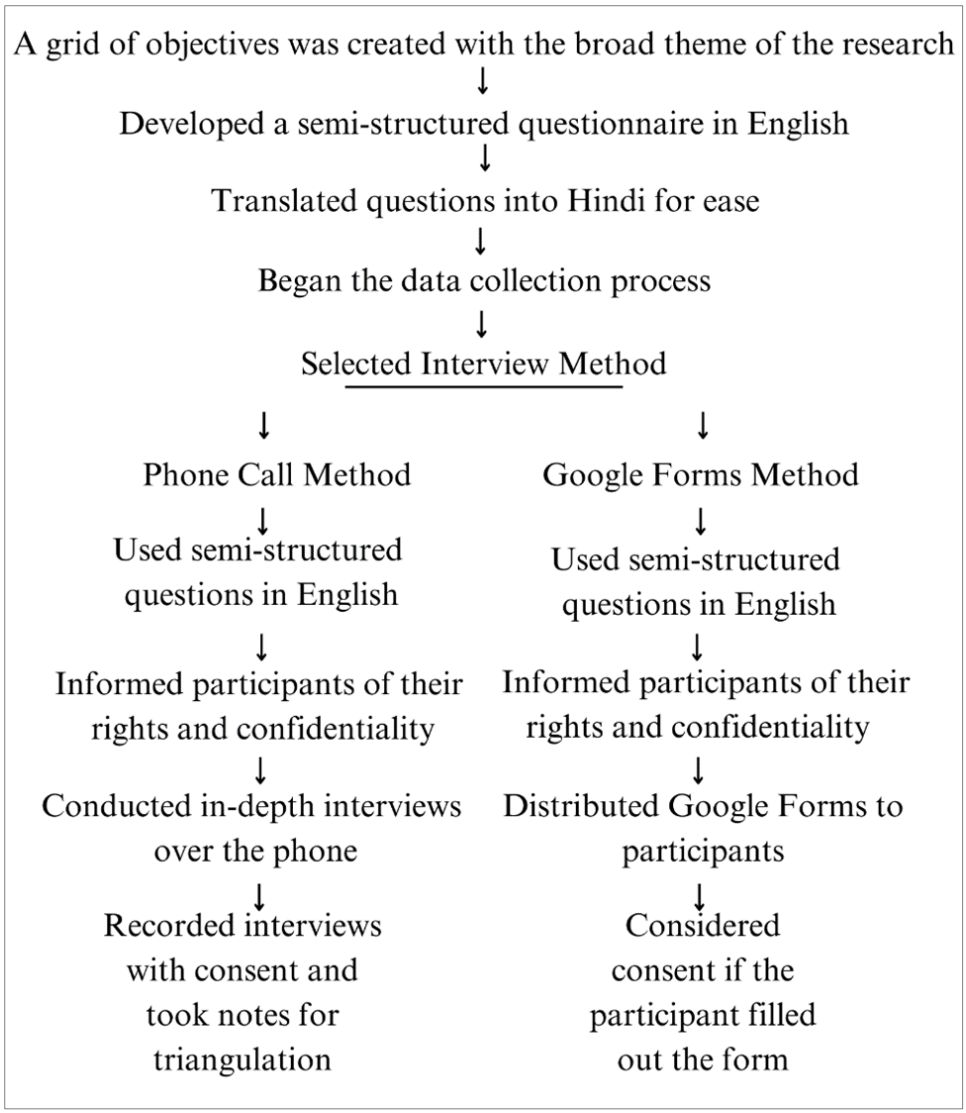

Figure 1. Flowchart illustrating data collection process

Table 1. Themes, codes and categories extracted from the data collected

Themes	Categories	Statements (Codes) Example
Demography	Age & Participation Mode	Age range 19-32 years; median 25 years Distribution: 19-22 (n=5), 23–26 (n=8), 27-32 (n=8) Data sources: telephone interviews (n=15), Google Forms (n=6).
Chemsex Experience	Duration	"I think it's been 3 to 4 years."
		"The first time was probably 2019."
		"I started when I was 20."
	Introduction to Chemsex	"Tried it at a party, and it's been a part of my life since."
		"Initially when I started doing it I feel it was a little violent for me but later I guess that's how it happens."
	Awareness of Family	"No, they are not aware. They wouldn't understand, so I keep it to myself."
		"Obviously not, and I would like to keep it that way. They wouldn't be able to handle it."
	Support System	"No, they are unaware, and I prefer it that way. I handle everything on my own."
		"In terms of me being gay, yes, but not for this. I'm on my own when it comes to chemsex."
	Frequency	"It's not something I do regularly. Maybe once every few months."
		"Not really, I do it occasionally, maybe once every few months."
	Partner Dynamics	"I have a fixed/permanent partner that I am doing it with currently."
		"I don't have only one person; I engage in group fun."
	Substance Access	"I have a regular dealer who I trust. Been buying from him for years."
		"Initially, through a friend, but now I have a regular dealer who I trust."
	Number of Partners	"I've had chemsex with 45 different partners. I try to keep it within a close circle."
		"I've had chemsex with 34 different partners. I keep it within a trusted group."
Violence and Safety	Experiencing Violence	"No, not at all, we have been friends before it, so there was no issue per se."
		"There are instances of that. I was once robbed and beaten up."
		"I was once given more drugs than my limit, after injecting when we were about to start penetration."
	Safety Measures	"No, haven't faced any violence or harassment during chemsex."
		"No, I've been fortunate to never face violence or harassment during or after chemsex."
Mental and Physical Impact	Health Concerns	"Yes, I've noticed that I'm more anxious, and my health isn't as good as it used to be."
		"Yes, I've become more anxious, and my physical health has suffered."
	Regret and guilt	"Sometimes, yes. Especially the day after, I start questioning my choices, but it fades after a while."

		"Yes, there's guilt, mostly about the risks and what it could lead to."
Social Dynamics	Social Pressure	"The biggest challenge is the social aspect. Most of my friends do it, and it's hard to say no when everyone else is doing it."
		"The hardest part is the social pressure. It's tough to say no when all your friends are doing it too."
	Trust and Respect	"No, not at all, we have been friends before it, so there was no issue per se."
Motivation for Chemsex	Reasons for Participation	"It's mostly for the enhanced experience and the feeling of being free from all worries. It makes everything more intense."
		"The thrill and the escape from reality. It's like everything is more enjoyable."
	Impact on Self perception	"Society sees it as something dangerous and taboo, which makes me feel a bit guilty about doing it."
Attempts to Quit	Efforts to Stop	"Yes, I've tried to stop a few times, but it's difficult. I've taken breaks, though."
		"Yes, I've tried to stop, and I've taken breaks, but it's not easy to quit completely."
	Concerns About Stopping	"I think I'd feel better physically and mentally, but I'd miss the high and the social aspect of it."
Support and help	Need for Support	"I think a support group or counseling would be helpful. Having someone to talk to who understands would make a big difference."
		"Counseling or a support group where I can talk to others going through the same thing would be really helpful."