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SEXUAL HEALTH

Harm reduction and multidisciplinary consultations for gay, bisexual, and other men who have sex with men practising chemsex based in a French infectious disease unit: patients' characteristics and perceptions

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ABSTRACT

Background. Chemsex, a type of sexualised drug use, is expanding among gay, bisexual, and other men who have sex with men (GBMSM), with physical and mental health risks. Health-seeking behaviours of GBMSM practising chemsex is not clear. **Methods.** Harm reduction (HR) consultations for GBMSM engaging in chemsex and seeking comprehensive services including HR were offered in a Parisian infectious disease unit. From December 2021 to January 2022, HR consultation patients completed an online survey on their consumption, health, used services, and perspective on consultations. We generated descriptive statistics, and tested (χ^2) the relationship between reporting a specialised follow-up and perceived usefulness of intervention. **Results.** Of 172 patients, a total of 96 GBMSM (55.2%) completed the survey. Most ever consumed substance was 3-methylmethcathinone (3MMC; 92/96; 95.8%). Before consultations, about half consumed at least once a week (50/96; 52%), most reported negative impacts of chemsex on their social (60/96, 62.5%), professional (56/96, 58.3%), intimate (53/96; 55.21%), or sexual life (52/96; 54.17%). Also, more than two-thirds (n = 57; 69.38%) had received a follow-up in specialised services: one-third had been followed in addictology (28/96, 29.2%) and/or psychotherapy (32/96, 33.3%), and one-fourth (24/96, 25.0%) had used emergency services. After consultations, three-quarters perceived the intervention as useful (n = 74; 77.08%); we found no significant relationship with receiving a specialised follow-up; and most were satisfied with professionals' listening (90/96; 93.8%), and reported reduced risks (80/96; 83.3%). **Discussion.** Multidisciplinary HR, preventive, diagnostical, and therapeutic sexological and psychiatric interventions are greatly needed among GBMSM practising chemsex. HR interventions accessible in services already attended by GBMSM are a valuable option.

Keywords: chemsex, evaluation and quality improvement, France, harm reduction, men who have sex with men, sexual behaviour, sexualised substance use, substance-related disorders.

Introduction

Chemsex is a type of sexualised drug use that has gained attention and expanded among gay, bisexual, and other men who have sex with men (GBMSM) in the past two decades.[1] In developed countries, about 15–60% of GBMSM engage in chemsex, and it is a growing public health concern.[2,3] Chemsex is characterised by a clear and planned intent to use psychoactive drugs to facilitate or enhance sexual activity in terms, for example, of intensity or duration. Its expansion among GBMSM was facilitated by smartphones and hook-up (sexual networking) mobile applications that provide easy access to new sexual partners and 'recreational' drugs.[1,4] Chemsex is indeed related to Internet addiction, fear of missing out, and 'phubbing' behaviours (i.e. the act of ignoring companions in a social situation by checking or using one's smartphone), which contribute to interpersonal relationship problems and diminish feeling of wellbeing.[5]

While synthetic substances such as crystal methamphetamine (or crystal meth), g-hydroxybutyrate/gamma-butyrolactone (GHB/GBL), and cathinones (including 3-methylmethcathinone/3-chloromethcathinone (3MMC/3CMC), mephedrone, etc.), and also cocaine and ketamine[6,7] are mainly used in chemsex, the term includes several practices that vary in terms of consumed substances, intensity, frequency, and nature. For instance, 'Slam' is a type of chemsex practice involving the injection of drugs reported among about 5% of people practising chemsex in literature reviews.[8,9] Potential harm exists, including traumas and somatic damages associated with sexual activities and substance consumption, interactions, or overdoses, and psychiatric decompensation.[1,10] Chemsex is associated with increased risks for psychiatric pathologies, and sexual health conditions, as well as sexually transmitted infections (STIs) and HIV, possibly due to the disinhibition of sexual practices and decision making, the alleviation of anxieties and concerns for sexual risks, and the potential exchange of drug injection equipment.[1]

One's experience of chemsex is often modelised into a 'journey' distinct from other forms of recreational consumption and potentially leading to 'problematic chemsex'[11] when the physical, social, or emotional toll on people's lives gets too heavy. An element of this model that still needs clarification is the association between chemsex and health-seeking behaviours, including engagement in sexual health, psychological and addictologic support, and STIs and HIV prevention and treatment. Risks and factors protecting people practising chemsex from transitioning into later and more problematic patterns of chemsex are not well understood, including factors associated with healthcare service attendance.[12] However, practising chemsex may reinforce and expose to certain barriers to health care. Those engaging in chemsex are more likely to have sub-optimal clinical attendance.[13] Drug use is generally associated with disengagement from care, including poor clinic attendance,[13] partly due to stigmatisation. Many people engaging in chemsex already presented some form or predisposition to vulnerability associated with adverse experiences or unsupportive, marginalised environment (e.g. physical or sexual abuse, stigmatisation, mental health problems) prior to it.[12] In contrast, engaging in chemsex is not associated with poor HIV pre-exposure prophylaxis (PrEP) adherence, mainly due to a heightened self-perception of risk.[14,15] People may have different motivations to engage in chemsex. Some may engage in chemsex to address or seek transcendence from issues related to sexual identity, ways of feeling and relating in the context of sex, intimacy and connection among GBMSM, and loneliness, among others.[1] Some may also do so by hedonism; i.e. for the pursuit of pleasure, which may have protective implications for problematic chemsex, and yield greater engagement in care and support-seeking or support-providing behaviour, when compared to those who practice chemsex to address sexual health issues.[16]

Several approaches exist to prevent and treat problematic chemsex. Interventions in hospital and clinical settings typically seek abstinence, whereas community-based services are more likely to provide harm reduction (HR)-related support, usually consisting in developing and informing about strategies to reduce HIV-, drug-, and sex-related risks.[1] Yet, multidisciplinary interventions should also consider patients' motivations, including health issues that may contribute to motivate engagement in chemsex.[17] Such tailored interventions to prevent or treat problematic chemsex hence require complex, multidisciplinary approaches.[18] The literature highlights the value of networks of trained multidisciplinary professionals and advocates offering HR and treatment services.[19] Any intervention should begin with the development and administration of tools to aid routine assessment of drug use especially in sexual health services catering to GBMSM,[13,18] to adapt interventions to diverse chemsex practices and avoid missed opportunities.[12] Implementation of HR interventions could benefit sexual health services, but such interventions must be well-integrated, to ensure efficient and equitable access to services, optimise patient experience, and avoid providers' emotional burnout as a result of the HR work.[20]

At the Infectious and Tropical Disease Unit (henceforth, the Unit) of Hôpital Saint-Louis (Assistance publique - Hôpitaux de Paris), a university infectious disease and sexual health centre located in Paris, France, we initiated an intervention consisting of comprehensive HR consultations for GBMSM engaging in chemsex. Our objective is to assess patients' consumption and sexual or general health issues related to chemsex, and describe their perspective, in terms of satisfaction and perceived usefulness, with this intervention.

Materials and methods

This cross-sectional study is based on an online survey administered to patients attending comprehensive sexual health and HR consultations for chemsex at the Unit. This research did not receive any specific funding and was approved by the Institutional Review Board of the French Infectious Disease Society (CER-MIT No. IRB00011642).

Setting

The Unit is a major infectious disease and sexual health centre, providing judgement-free HIV care to over 4000 people with HIV, including 951 women, 51 trans people with HIV, and over 3249 men, and 1950 GBMSM on PrEP. Studies indicate that 30–50% of patients followed in similar infectious disease and/or sexual health units engage in chemsex.[2,3] Considering that 4248 GBMSM are followed at the clinic either for HIV care or PrEP, we estimate that over 1400 Unit patients may engage in chemsex. Patients with HIV are usually followed up every 6 months, and those on PrEP, every 3 months.

The intervention

The intervention consists of HR consultations offering a transverse and multidisciplinary care pathway focused on sexual health, psychology and addictology. In early 2019, a physician of the Unit, also psychotherapist and specialised sexologist (i.e. the first author) provided the role of increasing awareness among the whole team of the Unit regarding the necessity of HR consultations, and training physicians to identify chemsex use among patients using six questions: (1) whether they use substances to have sex; (2) their favourite substance (i.e. the substance they often 'return to', or the one that is the most difficult to stop or that triggers most chemsex episodes) and its mode of administration; (3) whether they have a good time in this context; (4) whether they find their consumption acceptable; (5) the timing of their last intercourse without substance use; and (6) whether they would like to speak to a specialist. The physician also trained three nurses and other physicians to deliver HR therapeutic education and motivational interviewing to GBMSM engaging in chemsex.

Besides identification by physicians, patients can ask for an HR consultation at any time. During the first HR consultation, a nurse defines with patients their HR objective(s) and determines a consequent agenda with the possibility of more frequent visits. At each HR consultation, the nurse and the patient re-assess and adjust these objectives and agenda, and a personalised action plan is established; for example, to favour one's questioning about their practices, help manage cravings, find a desired pattern of consumption, regain confidence, and prevent relapses. When needed, patients may be referred to a chemsex-specialised physician, including psychiatrists, psychotherapists, and sexologists.

Implementation of HR consultations began in September 2019.

Sampling and data collection

In early December 2021, nurses presented the study to all Unit patients during HR consultations. After their visits, nurses sent an anonymous online survey to patients interested in participating. The survey took about 10 min to complete and included 19 items in French about their pattern of substance and chemsex use (consumed substances, frequency of use, perceived impacts), their utilisation of healthcare services (including emergency services, hospitalisation, mental healthcare professionals, sexologist), and their perception of the intervention (interest, need, and perceived usefulness; self-perceived ability to reduce risks after HR consultations; and perception of professionals' listening and availability, and provided tools (for an English version of the survey, see Supplementary file S1). The survey was closed mid-January 2022.

Analysis

Using Excel, we reported raw numbers and percentages of the different items included in the survey. We used a chi-squared test to assess the relationship between perceived usefulness of intervention and receiving a follow-up in a specialised health service besides services offered at the Unit.

Results

Between September 2019 and December 2021, 172 Unit patients attended the intervention and were offered to complete a survey. These patients attended a total of 633 HR consultations. Of these, more than three-quarters (132/172 patients, 77%) attended at least two HR consultations (average number of total consultations = 4), and over three-quarters were not followed up after 2 years (107/172; 81%). The average age was 41 years old. Of these 172 patients, a total of 96 patients (55.2% response rate) completed the survey.

Participants' consumption, sexual health issues, and health care in relation to chemsex pratices

Table 1 shows participants' substance used and frequency of consumption. Almost all participants ever consumed 3MMC (92/96; 95.8%), two thirds used GHB (n = 63; 65.6%), a few used crystal methamphetamine (n = 12; 12.50%), and almost one-fifth had used cocaine (18/96; 18.8%). In the past 6 months, more than half consumed substances at least once a week (50/96; 52%) and about one-third (33/96; 34.4%) reported at least one Slam event in the past few months; and among these, more than half (18/33, 54.54%) reported a frequency of more than once a month.

Table 2 shows self-reported domains of life negatively-impacted by chemsex practices before attending HR consultations, sexual health issues before initiating chemsex, attended medical services for reasons linked with chemsex practices before the intervention, reference for HR consultations, and need and importance of the intervention. Less than one-fifth (16/96, 16.7%) reported no negative impacts, and almost two-thirds of participants reported negative impacts on their family or friends (60/96, 62.5%) or on their professional life (56/96, 58.3%), and over half, on their intimate (53/96; 55.21%) or sexual life (52/96; 54.17%).

Over half of participants (58/96; 60.42%) reported at least one sexual health issue before initiating chemsex. Almost half (39/96, 40.6%) reported a sexual addiction and one-third (n = 31/96, 32.3%), erectile dysfunction. About one-fifth (17/96; 17.70%) reported ejaculation disorders and a few reported anhedonia (10/96; 10.42%).

More than two-thirds of participants (n = 57; 69.38%) had received at least one specialised health service before attending HR consultations. For instance, about one-third of participants had had a follow-up in addictology (28/96, 29.2%) or with a psychotherapist (32/96, 33.3%), or had taken psychoactive medication (34/96, 35.4%). Also, about

Table 1. Participants' self-reported frequency of consumption and substance used during chemsex events ($N = 96$).

	n (%)	%
Frequency of substance consumption in the past 6 months		
Less than once every 6 months	1	1.04
Once every 2–3 months	5	5.21
Twice or three times a month	30	31.25
Once a month	10	10.42
Once a week	20	20.83
Several times a week	27	28.13
Every day	3	3.13
Frequency of chemsex events in the past 6 months		
Less than once every 6 months	3	3.13
Once every 2–3 months	4	4.17
Twice or three times a month	12	12.50
Once a month	8	8.33
Once a week	0	0.00
Several times a week	2	2.08
Every day	0	0.00
No consumption in the past 6 months	66	68.75
Substances ever used during chemsex events		
GHB (gamma-hydroxybutyrate)	63	65.63
Crystal methamphetamine	12	12.50
3MMC (3-Methylmethcathinone)	92	95.83
Alpha-PVP/PHP (alpha-pyrrolidinovalerophenone)	4	4.17
Mephedrone	2	2.08
Ketamine	9	9.38
Cocaine	18	18.75
Ecstasy (methylenedioxymethamphetamine)	5	5.21
THC (tetrahydrocannabinol)	1	1.04

one-quarter of participants (24/96, 25.0%) had used emergency services in relation to chemsex practices.

Almost two-thirds of participants asked for HR consultations themselves (60/96; 62.5%). Almost half (45/96, 46.9%) considered the intervention as needed or importantly needed, and a majority (83/96, 86.5%) considered as important or really important to them.

Satisfaction with the intervention

Table 3 shows results concerning participants' perceived usefulness of intervention, self-reported risk reduction, and satisfaction with different elements of the intervention. A majority of participants were satisfied or very satisfied with professionals' listening during HR consultations (90/96; 93.8%), with action plans or tools provided by professionals during HR consultations (71/96; 74%), and with professional's availability (88/96; 91.7%). More than three-quarters of participants found the intervention useful or very useful ($n = 74$; 77.1%).

Table 2. Participants' self-reported domains of life negatively-impacted by chemsex, sexual health issues before initiating chemsex, attended medical services linked with chemsex before the intervention, reference for the consultations, and need and importance of the intervention ($N = 96$).

	n	%
Self-reported negative impacts of chemsex on domains of life before attending consultations		
Professional life	56	58.33
Family or friends	60	62.50
Intimate relationships	53	55.21
Sexual life	52	54.17
No negative impact	16	16.67
Self-reported sexual health issues before initiating chemsex practices		
Erectile dysfunction	31	32.29
Ejaculation disorders	17	17.70
Lack of pleasure	10	10.42
Sexual addiction	39	40.62
Perception that penis is too small	7	7.29
Pain (e.g. irritation or inflammation of penis or testicles, anal hypersensitivity)	9	9.38
No sexual health problem	38	39.58
Self-reported attended medical services linked with chemsex before attending consultations		
Emergency services	24	25.00
Hospitalisation (either for psychiatry or addictology)	13	13.54
Psychiatric diagnosis by a health professional	13	13.54
Psychiatric follow-up	21	21.88
Uptake of psychoactive medication	34	35.42
Psychotherapeutic follow-up	32	33.33
Addictologic follow-up	28	29.17
No other follow-up	39	41.67
Person who asked for the intervention		
Patient asked by themselves	60	62.50
A healthcare professional asked for the patient	34	35.42
Other	2	2.08
Self-evaluation of need for intervention		
Intervention was importantly needed	12	12.50
Intervention was needed	33	34.38
Intervention was more or less needed	32	33.33
Intervention was not needed	19	19.79
Self-evaluation of importance of intervention		
The intervention is really important for me	39	40.63
The intervention is important for me	44	45.83
The intervention is little important for me	9	9.38
The intervention is not important for me	4	4.17

Table 3. Participants' perceived usefulness of intervention, self-reported risk reduction, and satisfaction with the intervention ($N = 96$).

	n	%
Perceived usefulness of intervention		
Not useful at all	6	6.25
Not useful	16	16.67
Useful	43	44.79
Very useful	31	32.29
Self-reported risk reduction after intervention		
Reduced risk	20	20.83
Partially reduced risk	60	62.50
Not reduction of risk at all	16	16.67
Satisfaction with professionals' listening		
Not satisfied	4	4.17
Little satisfied	2	2.08
Satisfied	22	22.92
Very satisfied	68	70.83
Satisfaction with action plan or tools provided by professionals		
Not satisfied	3	3.13
Little satisfied	22	22.92
Satisfied	54	56.25
Very satisfied	17	17.71
Satisfaction with professionals' availability		
Not satisfied	2	2.08
Little satisfied	6	6.25
Satisfied	32	33.33
Very satisfied	56	58.33
Recommendations to a friend or a person in a similar situation		
I would certainly recommend the intervention	81	84.38
I would maybe recommend the intervention	10	10.42
I would probably not recommend the intervention	4	4.17
I would certainly not recommend the intervention	1	1.04
Reasons to leave the intervention		
Change of residence	3	3.13
Attendance to only one consultation	6	6.25
Lost to follow-up	31	32.29
Reference towards another resource	16	16.70
Objective reached	40	41.70

Almost three-quarters reported that their risk reduced at least partially after the intervention (80/96; 83.3%), and a majority would certainly recommend the intervention to a friend or close one in a similar situation (81/96; 84.4%). Almost half of participants (40/96, 41.7%) left the intervention because they believed that their objective had been achieved and almost one-fifth were oriented towards other resources (16/96, 16.7%). More than one-fifth were lost to follow-up (31/96, 32.3%).

Table 4. Relationship between perceived usefulness of intervention and reported follow-up in a specialised health service ($N = 96$).

	Perceived usefulness		Total *n* (%)	χ^2 (*P*-value)
	Useful or very useful *n* (%)	Not useful or not useful at all *n* (%)		
Reported follow-up in a specialised health service	45 (78.9)	12 (21.1)	57 (100)	0.276 (0.599)
No reported follow-up in a specialised health service	29 (74.4)	10 (25.6)	39 (100)	

Table 4 shows the results of the chi-squared test assessing relationship between perceived usefulness of intervention and reporting a follow-up in another specialised service. There was no significant relationship between these two variables ($\chi^2 = 0.276$, $P = 0.599$).

Discussion

This cross-sectional study assessed a hospital-based inclusive and transversal centre intervention based on principles of HR in a French setting. The intervention consisted of increasing awareness among clinical staff and training them to identify and screen people practising chemsex, provide HR consultations involving therapeutic education and motivational interviewing to establish with patients personalised objectives and realistic action plans, and reference patients towards other specialists when needed.

Motivational interviewing and therapeutic education, with psychosocial and multidisciplinary options, are starting points to chemsex HR interventions, given the paucity of resources and support centres.[21] In this intervention, these strategies benefitted from services already provided in the Unit, including sexual health screening, vaccinations, post- and pre-exposure HIV prophylaxis, and psychotherapy, sexology, and addictology counselling services, among others, which are also important in chemsex interventions.[22] Multidisciplinary care may explain the insignificant relationship between perceived usefulness of intervention and reporting a follow-up in another specialised service. Other HR strategies could also be implemented, such as clean needles/safe injecting equipment.[22]

Our results show a high patient satisfaction with the intervention. Most participants attended more than one consultation, found the intervention useful, were satisfied with the tools or action plans provided, and reported some reduction of their risks. In the assessment of HR interventions, patient perspective is important to verify whether interventions are tailored to contexts, needs, and specificities and variations existing among patients.[1] Indeed, this study is important to ensure that it is patient-centred; i.e. that is

respectful and responsive to patients' preferences, needs, and values. Participants' frequency of consumption and substance used show that the diversity of chemsex practices in the sample. About one-third of participants practiced Slam, which is higher than what is generally mentioned in other similar studies,[6] and a majority reported negative impacts on their personal or professional life. This may indicate a selection bias in early implementation. Indeed, the intervention may have then been disproportionately attended by patients who had gone further along their consumption journey and who experienced complications.

Our results moreover indicate that an intervention with trained multidisciplinary healthcare professionals was greatly needed among Unit patients. Indeed, one-quarter of participants had attended emergency services in relation to chemsex prior to initiating the intervention, an increasing phenomenon and life-threatening problem.[23,24] About two-thirds of participants reported a sexual health issue prior to initiating chemsex, and a substantial portion of participants reported having some kind of follow-up in psychiatry. These characteristics imply a heightened risk of addictive behaviour,[25] and it is possible that in many cases, drug use in sexual contexts constituted a risky and inefficient way of self-medicating or coping with sexological or psychiatric issues.[26] These findings reveal a need among GBMSM for preventive, diagnostical, and therapeutic sexological and psychiatric interventions, which could reduce the incidence of consumption as self-medication. General practitioners catering to this population should be made aware and trained to the needs of patients engaging with chemsex. Our results also show the value of providing hospital-based HR consultations that allow discussions of individual patients' concerns and needs, key in providing patient-tailored interventions.

The multidisciplinary and integrated approach, involving the whole clinical team and specialists, of the intervention optimised its flexibility, accessibility, and equity. People practising chemsex go through transitions that include states of opportunity, or moments when patients are the most susceptible to health behaviour change, and states of vulnerability, or moments when they are likely to experience negative health outcomes.[27] As transitions can happen quickly, interventions concerning chemsex practices should be easily and rapidly accessible when people want it and providers should be ready to adapt to people's needs, preferences, issues, and lifestyles.[12] Patients are more likely to accept and adhere to an intervention provided in a centre where they already receive care.[28] Along this line, the intervention benefitted from being easily accessible, after a rapid evaluation by healthcare professionals or on patients' demand, within a sexual health service where patients went for STI and HIV screening, prevention, or treatment. Several professionals provided consultations, therefore increasing access and decreasing risks of professionals' emotional burnout.[20] Importantly, almost two-thirds of our sample asked for the intervention themselves, which is important for its acceptability and uptake by patients. Other studies have shown the importance of maintaining a balance between easy access and over-exposing people practising chemsex to chemsex interventions when they do not want to or do not seek them, which can be stigmatising or yield resistance to partake in such interventions.[27] The fact that a majority of participants are likely to recommend the intervention to others is an important finding and reveals a possibility to collaborate with community-based organisations, given the importance of peers in chemsex interventions.[29]

There were some strengths and limitations in this study. We estimated that about 1400 patients engaged in chemsex at the Unit when we initiated the study, and 172 of them had received a total of 633 HR consultations in December 2021. These consultations were implemented in September 2019, and patients were gradually included as they attended their infectious diseases regular follow-up, which occur either every 3 months (PrEP), between 6 and 12 months (HIV), or irregularly (e.g. STI screenings). Additionally, inclusion in HR consultations depended on patient's readiness, willingness, and acceptance of such care. As more patients are expected to gradually receive HR consultations, this study provides compelling insights on the perspective of 'early adopters'; i.e. the first patients engaging into chemsex and receiving HR consultations within a hospital setting. Also, substantial segment of the data was collected during the SARS-CoV-2 (COVID-19) pandemic and its associated prevention and lockdown measures, which heightened chemsex-associated risks, in particular mental health conditions (e.g. loneliness, loss of sense of meaning), and reduced access to health care.[7] This may partially explain that a majority expressed a need for the intervention. Data was collected retrospectively and was self-reported. Results may thus have been affected by memory loss and social desirability. It may have also introduced a sampling bias; e.g. privileging patients who had a positive experience of the intervention, and we have no information about chemsex practices in the overall population of Unit patients. It is therefore difficult to determine whether these results are representative of the population. Still, over half (96/172; 56%) of patients who did attend consultations participated in the survey.

Conclusion

Chemsex practices are an expanding phenomenon, and health services attended by at-risk populations, especially sexual health services already attended by GBMSM, should be ready to adjust to patients' needs and preferences. This includes offering multidisciplinary interventions to prevent, diagnose, and treat complex psychiatric and behavioural issues potentially associated with sexual and consumption practices. Our results show that users sought care for specific health issues associated with substance consumption, and they were

highly satisfied with the intervention. Tailored HR interventions for people practising chemsex should be provided by healthcare professionals who are made aware, educated, and organised to reduce barriers and increase simplicity and timeliness for patients, to make sure patients benefit from interactions with trusted professionals early in their chemsex journey.

Supplementary material

Supplementary material is available online.

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Data availability. The data that support this study will be shared upon reasonable request to the corresponding author.

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