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Chemsex, risk behaviours and sexually transmitted infections among men who have sex with men in Dublin, Ireland

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ABSTRACT

Background: Drug use for or during sex ('chemsex') among MSM has caused concern, because of the direct effects of the drugs themselves, and because of an increased risk of transmission of sexually transmitted infections (STIs). This study aimed to assess the prevalence of chemsex, associated behaviours and STIs among attendees at Ireland's only MSM-specific sexual health clinic in Dublin over a six week period in 2016.

Methods: The questionnaire collected demographic data, information on sexuality and sexual practice, self-reported history of treatment for STIs, and chemsex use. Key variables independently associated with treatment for STIs over the previous 12 months were identified using multivariable logistic regression.

Results: The response rate was 90% (510/568). One in four (27%) reported engaging in chemsex within the previous 12 months. Half had taken ≥2 drugs on his last chemsex occasion. One in five (23%) reported that they/their partners had lost consciousness as a result of chemsex. Those engaging in chemsex were more likely to have had more sexual partners($p < 0.001$), more partners for anal intercourse ($p < 0.001$) and to have had condomless anal intercourse($p = 0.041$). They were also more likely to report having been treated for gonorrhoea over the previous 12 months (adjusted OR 2.03, 95% CI 1.19–3.46, $p = 0.009$). One in four (25%) reported that chemsex was impacting negatively on their lives and almost one third (31%) reported that they would like help or advice about chemsex.

Conclusion: These results support international evidence of a chemsex culture among a subset of MSM. They will be used to develop an effective response which simultaneously addresses addiction and sexual ill-health among MSM who experience harm/seek help as a consequence of engagement in chemsex.

Introduction

The use of recreational drugs is associated with potentially high-risk sexual behaviours and consequently an elevated risk of sexually transmitted infections (STIs) and HIV (McCarty-Caplan, Jantz, & Swartz, 2014). International evidence suggests that among men who have sex with men (MSM) who use drugs, there is a preference for 'sex-drugs', including alkyl nitrites ('poppers'), crystal methamphetamine ('crystal meth') and club drugs (including ketamine, 3,4-Methylenedioxymethamphetamine (MDMA) ('ecstasy') and gamma-hydroxybutyric acid/gamma-butyrolactone (GHB/GBL)) (McCarty-Caplan et al., 2014). A separate group of drugs, new psychoactive substances (NPS), have also become popular with MSM, with one of these, 4-methylmethcathinone (mephedrone), becoming the sixth most consumed substance in gay bars and nightclubs in the UK, after alcohol, tobacco, cannabis, MDMA, and cocaine (Winstock et al., 2011).

The underlying reasons for engaging in chemsex – the use of these drugs specifically for or during sex – are complex; the behaviour men engage in and the reasons for their use of drugs in sex are specific to each individual (Bourne, Reid, Hickson, Rueda, & Weatherburn, 2014). However, a range of overarching hypotheses have been proposed for why men engage in chemsex. One explanation is that they are 'sensation seeking', pursuing the most sensorily powerful sexual experiences (Melendez-Torres & Bourne,

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2016). Many of the drugs used for chemsex are stimulants (e.g. GHB/GBL, crystal meth, mephedrone) which increase heart rate and blood pressure; in addition they are known to trigger feelings of euphoria and sexual arousal and can facilitate long sexual sessions with multiple partners extending over several days (Page & Nelson, 2016). It has also been suggested that men use chemsex to escape the rigorous norms governing gay sexuality in order to engage more freely in risky sexual behaviours – the theory of 'cognitive escape' (Melendez-Torres & Bourne, 2016). Qualitative work with MSM in London meanwhile suggested that substance use is seen as a strategic resource in achieving sexual goals, by facilitating sexual self-confidence or self-esteem, and in overcoming concerns relating to body image or sexual performance (Bourne et al., 2015; Melendez-Torres and Bourne, 2016).

Regardless of the motivations for engaging in chemsex, the use of recreational drugs in this way can have serious implications for those taking them. Consumption of 'chemsex drugs' can lead to unwanted side effects including agitation, anxiety, paranoia, aggression, and psychoses. All drugs can lead to dependency and there have been reports of overdose with unconsciousness and death (Hockenhull, Murphy, & Paterson, 2017; Lingford-Hughes, Patel, Bowden-Jones, Crawford, & Dargan, 2016; Ma & Perera, 2016). GHB/GBL in particular is associated with very high rates of overdose with one in five users reporting that they lose consciousness each year (Winstock, 2015).

In addition to concerns about the drugs themselves, chemsex has also been implicated as a potential risk factor for the spread of STIs and HIV. In a study by Heiligenberg et al. in Amsterdam, HIV-infected MSM reported more sex-related drug use than HIV negative MSM and sex-related drug use among the latter was associated with STI, even after adjusting for sexual behaviour (Heiligenberg et al., 2012). The use of chemsex drugs by MSM has also been shown to significantly increase the relative risk of infection with HIV (Ostrow et al., 2009),while chemsex has been implicated as a risk factor for the spread of transmissible enteric pathogens, including Shigella and Escherichia Coli (Bains, Crook, Field, & Hughes, 2016). In 2016, a retrospective review of case notes of MSM attending two South London sexual health clinics reported that chemsex was associated with higher risk sexual behaviours, higher likelihood of having been diagnosed with any STI over the study period and that HIV positive MSM were significantly more likely to participate in chemsex than those who were HIV negative (Hegazi et al., 2016).

While analysis of data from the European MSM Internet Survey (EMIS, 2010), the MSM Internet Survey in Ireland (MISI, 2015) and the Attitudes to and Understanding of Risk of Acquisition of HIV (AURAH, 2013–14) Study suggest that substantial numbers of respondents are using drugs associated with chemsex, these surveys did not ask respondents directly if they had used these drugs specifically for chemsex and hence it remains unclear as to whether these drugs were being used in this context or for other recreational purposes (Igoe et al., 2015; Kramer et al., 2016; Sewell et al., 2017).

Given international evidence on the growing popularity of chemsex, the potential risks associated with it, and the paucity of published information on this issue in Ireland there is a need to better understand the relationship between chemsex, risk and sexual risk behaviours and STI-risk among MSM in order to implement appropriate risk reduction and prevention strategies. Consequently, this study aimed to assess the prevalence of chemsex use among attendees at Ireland's only MSM-specific outpatient sexual health clinic in Dublin. In addition, it aimed to better understand the attitudes towards, and harms arising from, engaging in chemsex and, specifically, to evaluate the relationship between chemsex and other sexual risk behaviours on self-reported history of treatment for STIs and HIV.

Methods

The methods are reported according to the STROBE guidelines for observational studies (von Elm et al., 2008). This study was carried out with the prior approval of the ethics committee in St. James' and Tallaght Hospitals, Dublin, and with the informed written consent of the participants.

Definition of chemsex

Chemsex was defined as the use of drugs specifically for or during sex. The drugs included in this definition were ketamine, GHB/GBL, crystal meth, mephedrone, cocaine, NPS and other stimulants (including speed/amphetamine/ecstasy/eros/nexus/smiles). Alcohol, cannabis and poppers are generally excluded from definitions of chemsex, and they were not included in our definition (Knoops, Bakker, van Bodegom, & Zantkuijl, 2015).

Participants

The target population was defined as MSM attending the Gay Men's Health Service (GMHS) in Dublin; the only MSM-specific sexual health service in Ireland. All attendees over a six week period (12 clinics) in 2016 were invited to participate. Respondents had to be 18 years of age or older, fluent in English or Portuguese and attracted to other men or have a history of having had sexual contact with a man.

Study instrument

Questionnaire content was developed based on surveys and qualitative research with MSM previously conducted nationally and internationally (Bourne et al., 2014; Frankis, Young, Lorimer, Davis, & Flowers, 2016; Igoe et al., 2015; Kramer et al., 2016; MISI, 2015). The survey explored the following domains; demographic history, binge alcohol consumption (consumption of six or more standard drinks on one occasion), sexuality (sexual identity, current partnership status), STI history (self-reported history of treatment for STIs within previous 12 months); sexual behaviours with men (last sexual contact, number of sexual contacts, engagement in condomless anal intercourse (CAI)) and self-reported chemsex activity within the previous 12 months (activity, number of partners, drugs used, frequency of use, methods of use, injecting use), attitudes towards and help-seeking for chemsex.

Survey procedure

A pilot survey was conducted with twenty attendees at GMHS and minor amendments were made to the questionnaire design. All attendees were approached by the surveyors (RG, NB, AS), provided with an information sheet about the study and asked to participate. Participants were invited to complete a paper-based questionnaire in English or Portuguese while they were waiting to attend their consultation. Completed questionnaires were deposited anonymously at a data collection point. The surveyors were not involved in the care of participants at the clinic.

Data collection and analysis

All data collected were anonymous. The drug use characteristics of those who reported that they had engaged in chemsex were examined.

Chi-squared tests were used to investigate for differences in socio-demographics, binge alcohol consumption (at least once monthly versus less than once monthly), sexuality, number of sexual contacts in the previous 12 months (ten or less versus more