

Chemsex. An emergent phenomenon

Chemsex. *Un fenómeno emergente*

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Chemsex is the term given to the intentional use of psychoactive drugs in order to maintain sexual relations between men who have sex with men (MSM), usually for long periods of time and with multiple partners. This phenomenon has also been called *Party and Play (PnP)* in North America and *intensive sex partying* in Australia (Bourne et al., 2014). The intravenous (IV) use of these substances for similar purposes is known as *slamming* or *slamsex*. The drugs principally used are mephedrone, γ -hydroxybutyrate / γ -butyrolactone (GHB / GBL) and methamphetamine (McCall, Adams, Mason & Willis, 2015), although others have also been described (see Table 1). This definition, however, fails to explain other fundamental aspects of the phenomenon, such as the use of geosocial networking applications to locate or participate in "sessions". In fact, it has been reported that in comparison with MSMs who do not use such applications, those MSM who do use them tend to be younger, to have a better education and higher purchasing power, as well as more likely to engage in risky sexual behavior and present more STDs (Zou & Fan, 2016).

Since McCall and colleagues published the editorial *What is chemsex and why does it matter* in the BMJ in 2015, various observations about the phenomenon have appeared in the media in our country but there have been few scientific publications, which means that its dimension are still unknown. The most significant articles on the issue have appeared in the field of infectious diseases (Fernández-Dávila, 2016), indicating an increase in primary HIV infection in MSM and hepatitis C reinfection in this group,

in addition to other STDs. It is among MSM that the greatest proportion of new HIV diagnoses in Europe was made in 2013, a total of 42% (Cornejo, Díaz, Díez & Valín, 2015). Similarly, a high rate of HCV reinfection has been reported among MSM in different European cities, reaching close to 25% (Ingiliz et al., 2016) with different independent risk factors: unprotected anal sex, sexual activity within a context of stimulant drug use, risky sexual practices or group sex (Vanhommerig et al, 2015), all features involved in *chemsex*.

With regard to the drugs used in *chemsex*, mephedrone stands out with a reported prevalence of use of up to 90% (Bourne et al., 2014). This substance, like other synthetic cathinones, has psychoactive and sympathomimetic effects similar to amphetamines, besides possessing entactogenic properties such as sensorial intensification, increase in sociability, disinhibition and sexual arousal. Its use is intended to enhance sexual stimulation and the duration of sessions (McCall, Adams, Mason & Willis, 2015). Its frequency in *slamsex* sessions has been observed at between 33% and 38% in some series (Bourne et al., 2015). This substance possesses great addictive potential. In intravenous use, the need to redose in increasingly shorter periods of time has been described, reaching 15-20 injections per day. In addition, this route of administration favors the appearance of induced psychotic symptoms. GHB is a CNS depressant that has a disinhibiting effect perceived as an aphrodisiac and a mild analgesic action. Its anesthetic effect favors the performance of aggressive sexual practices such as *fisting* because it relaxes the smooth muscle and decreases

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Table 1. *Psychoactive substances used in chemsex*

Psychoactive substance	Mephedrone and other synthetic cathinones: pentedrone, 4-MEC	Methamphetamine	GHB/GBL	Alkyl/butyl nitrites	MDMA	Cocaine	Ketamine
Street names	mephe, meow-meow, m-cat, bath salts.	Tina, crystal meth, ice, crank, speed.	Liquid ecstasy.	Poppers.	Ecstasy, molly. Sextasy (with sildenafil).	Coke, snow, blow.	Keta, vitamin K, Special K.
Intended effects	Stimulation, sexual arousal, euphoria, empathy feelings.	Stimulation, disinhibition, sexual arousal, increased confidence and self-esteem.	Sedation, anal sphincter relaxation. Euphoria, disinhibition, drunkenness, sexual stimulation.	Euphoria, socialization. Excitation and increase of power and increase of sexual pleasure.	Stimulation, feelings of empathy, acceptance and connection.	Activation, sexual arousal, hypervigilance.	Initial stimulation, relaxation, empathy, improvement of perception. Dissociation.
Adverse effects and complications	Dependence. Psychosis. Seizures, dystonias. Cardiac toxicity.	Psychotic symptoms. Hypertension. Dependence. Dry mouth and caries.	Drowsiness, loss of motor control (cumulative doses). Seizures. Delirium, Coma. Psychotic symptoms.	Retinal toxicity. Hypoxia. Hemolytic anemia.	Anxiety. Tachycardia, bruxism, "heat stroke". Affective symptoms and hangover.	Adrenergic hyperactivation. Vasospasm and ischemia. Paranoid ideation.	Mydriasis. Derealization. Accidents. Confusion. Hepatotoxicity. Neurotoxicity.

the pain threshold. Overdose with respiratory depression may be frequent, since it accumulates and its effect is potentiated in combination with other substances, and can thus lead to loss of consciousness, memory lapses and vulnerability to possible sexual abuse (Bourne et al., 2015). Methamphetamine is also common, especially with IV use. In this context, methamphetamine increases sexual confidence, duration, and intimacy. It also makes participation in high-risk behaviors such as group sex, sex with multiple partners, or aggressive sexual practices easier (Lea et al., 2016). Chronic methamphetamine use is associated with high dependence potential, mental health problems such as depression and/or psychosis, and transmission of blood borne viruses, mainly HIV (Darke, Kaye, McKetin & Duflo, 2008). Polydrug use in *chemsex* sessions is frequent, increasing the risks associated with the use of these drugs, in addition to the potential interactions between them and the antiretroviral treatments used by HIV-positive patients.

Given these data, we believe that epidemiological studies are needed to assess the phenomenon in Spain, not only in the field of infectious diseases, but also in relation to substance use and its impact on mental health. A multidisciplinary approach with these users, starting with a focus on reducing risks and damage, and leading to treatment for the consequences of substance use is now required in our country.

Conflicts of interest

The authors declare no conflicts of interest.

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