



# Types of psychoactive substance and manifested risky sexual behaviors among men – a review

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## Abstract

**Purpose:** Determining the relationship between the use of types of psychoactive substance and risky sexual behavior among men. The sources cited in the manuscript were selected through a search of scientific article databases in July 2023. Priority was given to publications with release dates from 2018-2023. Publications in Polish and English were included.

**Views:** The phenomenon of chemsex, more and more often noted in the group of men who have sex with men (MSM), involving sexual activity under the influence of intoxicants, promotes risky sexual behavior. The drugs used for these practices are mainly stimulants, disinhibitors and anesthetics. Factors that increase the risk of an individual deciding to engage in chemical sex include not accepting his sexual preferences, feelings of guilt, personality traits characterizing a person prone to taking risks and with a tendency to seek sensations, as well as high scores on the scale of depressiveness. The main factor determining the emergence of the problem is the occurrence of minority stress.

**Conclusions:** There is a relationship between the use of a certain type of psychoactive substance and engaging in risky sexual behavior. Psychoactive substances help to overcome fear and reduce the impact of minority stress on MSM. Risky behaviors undertaken during chemsex include increasing the risk of contracting diseases through the lack of appropriate safeguards, the risk of addiction, prostitution, as well as threats social relationships and mental health.

**Key words:** MSM, chemsex, risky sex.

## INTRODUCTION

The aim of the article is to present the relationship between the use of types of psychoactive substance and the risky sexual behaviors of men who have sex with men (MSM). The manuscript attempts to increase awareness of potential factors increasing the risk of exposure of this group to perisexual drug use. The problem is important due to the high percentage of people from this community who engage in behaviors that pose risk to their health and mental well-being. In the group of MSM, sexual intercourse under the influence of psychoactive substances taken immediately before or during intercourse is increasingly common. This phenomenon, called chemsex, is conducive to risky sexual behavior and exposure to various threats. The term was defined at the European Chemsex Forum in Paris as “the use of certain drugs in a sexual context by gay men, bisexual people, men who have sex with men (MSM) and trans people” [1]. MSM engaging in

chemsex represent a small but significant and particularly vulnerable male population [2]. A progressive increase in the number of psychiatric consultations and admissions related to the practice of chemsex has been described, with addiction disorders, depression and anxiety being the most common diagnoses [3].

## TYPES OF PSYCHOACTIVE SUBSTANCE

Different types of substance are used for chemical sex, with different types of action and differences in the way they are taken.

### Stimulants

Substances are usually taken just before or during intercourse. Synthetic cathinones, such as mephedrone, methamphetamine, methylenedioxymethamphetamine (MDMA), methamphetamine and cocaine, are most often mentioned in descriptions of this type of practice. The popu-

larity of these agents results from the fact that they belong to the group of stimulants that maximize both arousal and sexual performance [4]. There is a technique called “SLAM” involving the intravenous injection of drugs from this group before or during sexual activity [5].

### Disinhibiting agents

In turn,  $\gamma$ -hydroxybutyrate (GHB) and  $\gamma$ -butyrolactone (GBL), also often used in chemsex practices, are disinhibitory agents that help the user to achieve a state of relaxation. Substances from this group are available to varying degrees, depending on the country of residence [6].

### Other agents used in chemsex

In addition to these, a drug called Sildenafil, commercially known as “Viagra”, is also used, as well as other drugs for erectile dysfunction, used to not only overcome natural potency problems, but also to reduce the effects of methamphetamine, which can cause erection problems [4]. Summarized estimates range from 3% to 29% of MSM for non-injecting drugged chemical sex and from 1% to 50% of injecting drugged MSM [7].

## FACTORS CONDITIONING RISK BEHAVIOR

There are specific personality conditions, and those having their genesis in the individual’s environment, which make a person susceptible to engaging in chemsex practices. When one or more of them occur, the risk increases that, given a favorable occasion, a person will decide to try or have sex again under the influence of psychoactive substances.

Higher risk factors include previous problems, such as unacceptable sexual preferences, complexes or a sense of guilt; certain personality traits; previous sexual experience and a preference for chemsex pornography; prior involvement in parties involving group sex [8]. In turn, according to the authors of research conducted in Hong Kong, the practice of chemsex is closely correlated with a preference for more risky sexual behavior. An example is anal sex without the use of a condom between men who are either HIV-negative, HIV-infected or whose HIV status is unclear [9]. Studies conducted by the Swiss HIV Cohort Study on a group of people living with HIV also showed a strong relationship between high depression scores and the use of psychoactive substances for chemsex. This confirms the role of depressiveness as a factor that increases the risk of engaging in such practices [10]. Consistent with the literature, we identified six mechanisms that promote chemical sex behavior. These are: dealing with painful emotions and stress; normalizing and minimizing the risks associated with drug use in a sexual context; succumbing to peer pressure or satis-

fying the need to belong; growing intimacy or bonding; improvement of sexual performance and functioning; reduction of inhibitions [11]. As can be seen, not all of these risk factors can be eliminated, because some of them connect to personality-related determinants. However, some of them could be minimized by educating society on how to treat people with minority sexual preferences in a way that is free from exclusion and prejudice.

## EPIDEMIOLOGY

### Statistical data

Numerous studies conducted in various countries in Europe show that a representative part of the MSM population admits that they use psychoactive substances for chemsex intercourse. For example, in a study conducted on a group of MSM living in Amsterdam, 30.6% admitted that they practiced chemsex. Unfortunately, there is no data on how many of these people used drugs without a sexual context [12]. On the other hand, in a cross-sectional clinical study conducted in Norway among MSM respondents 17% reported sexual drug use in the last year. The most commonly used substances were GHB, GBL and cocaine [13]. A survey conducted among MSM in Germany found that 27% of participants reported having used methamphetamine, mephedrone, GHB/GBL and/or ketamine in a sexual context in the last twelve months [14]. The European MSM Internet Survey (EMIS) showed that the three cities in Europe with the highest rates of chemical sex use were Brighton (16.3%), Manchester (15.5%) and London (13.2%) [15]. In the case of Italy, most respondents participated in chemsex approximately 1-2 times a month, often accompanying men-only club events. Free-base cocaine appeared among the most important substances consumed, along with GHB/GBL, crystal methamphetamine and mephedrone [16]. In an online survey covering seven European countries, sexual drug use (SDU) was reported by 17.7% and chemsex by 5.2% of respondents. Hazard rates increased for various SDU patterns but were higher for drugs that included chemsex drugs [17]. It is also worth comparing the data collected on the MSM population with data on perisexual drug use in the heteronormative population. A cross-sectional survey study conducted by Sönmez and Palamar [18] aggregated data from 2015-2019 from the National Survey on Drug Use and Health in an adult population representative of the United States. Its conclusions suggest that homosexual men are at greater risk of using drugs such as marijuana, ecstasy, cocaine and methamphetamine, as well as inhalants throughout their lives. However, according to the same study, homosexual men initiate the use of all 5 tested substances later than the heterosexual population, and in the case of bisexual men they start using marijuana and inhalants later. There

are also examples in the literature that homosexuals use the so-called club drugs, i.e. ecstasy (MDMA, MOLLY), ketamine, GHB, methamphetamine and cocaine [19].

## Motivations

According to motivation theory, motives can be grouped on the basis of two main dimensions. The first are self-centered motives, i.e. those aimed at intensifying pleasure or increasing perceived arousal. The second is social motives. The use of psychoactive substances is used here as a means of establishing and improving contacts with others, or for conformist purposes [20]. In different situations and with different partners, the same person may have a different motive for taking psychoactive substances before having sexual intercourse.

In a situation where social motives are decisive, a frequent choice may be, for example, alcohol and other drugs commonly used in social situations, because for many MSM substance use plays a similar role in sexual contacts [21].

The existence of cultural motives for the phenomenon being described should also be noted. Internalized homonegativity, and therefore the feeling of guilt when having intercourse with another man, and minority stress, the definition of which will be discussed in more detail later in the article, may cause inhibition of the enjoyment of sex and the desire to reduce this effect by taking psychoactive substances before intercourse. A factor that also affects the problem of stress-free pleasure is the stigma of the AIDS epidemic, which in public opinion is associated with male-male sex because of the perception of this sex as risky and dangerous. Low self-esteem, complexes, fear of rejection, sexualization and the pressure to behave in a specific way are also important [22]. It should be emphasized that different studies present different conclusions on whether the perisexual use of psychoactive substances leads to greater satisfaction with sex or, on the contrary, to a decrease in sexual satisfaction. In the study by Hibbert *et al.* [15] 83% of MSM who practice chemsex are satisfied with their sex lives and feel in control. The 89% of MSM who drink alcohol for this purpose reported the same feelings, although both groups had lower overall life satisfaction. In turn, in a study conducted by Gerymski and Magoń [23] on the relationship between the use of chemsex, perceived stress, sexual well-being and life satisfaction of young Poles in a population of 175 men aged 18-33, results were obtained suggesting that people using chemsex had significantly lower levels of sexual well-being and life satisfaction and higher levels of perceived stress compared to the control group not using psychoactive substances. As can be seen, these studies are inconsistent regarding the impact of chemsex on the well-being of the people who engage in it.

## The concept of minority stress

In the MSM population, minority stress is a determining factor for chemsex. The term emphasizes the socio-cultural context in which they are affected by discrimination and psychological violence. Stigmatization causes a lot of stress resulting from the feeling of being stigmatized by negative social attitudes [24]. This concept assumes that experiences related to distal stressors, such as external prejudices, and internal stress processes, such as internalized homophobia, which are proximal stressors, contribute to an increased risk of distress for sexual minorities, including MSM [25]. In the 20 years since its formulation, the minority stress theory has had a significant impact on research into the health and well-being of sexual and gender minorities [26]. Chemsex becomes a way of mental relaxation. No one uses drugs to add to their difficulties. On the contrary, everyone who reaches for them expects an improvement in well-being. Most people using stimulants believe that, thanks to the psychoactive substances they take they become calmer, more socially attractive [27].

## ANALYSIS OF RISKY BEHAVIOR

### Risk to physical health

Among male practitioners, more frequent infections with HIV, hepatitis B and C, syphilis, chlamydia and gonorrhea are reported [28]. Every year around 30,000 people in EU/EEA countries become infected with HIV. In 2016, 76% of those diagnosed were men, of which 40% belonged to the MSM population and 4% to the group of injecting drug users [29]. Bacterial infections are also common, which, compared to the ones described above, seem harmless because they can be easily fought with antibiotics. However, there is increasing talk about the alarming rise of drug resistant bacteria [4].

### Danger of addiction

Addiction can be defined as a recurrent disorder involving both mental and somatic processes. It is characterized by phases of the active, excessive use of the drug, phases of more controlled use, abstinence, and episodes of relapse [30]. The use of psychoactive substances also significantly increases the risk of becoming addicted to their effects. Feelings resulting from taking a psychoactive substance and the sexual act itself activate the reward system responsible for repetitive behaviors, and its dysfunctions lead to the feeling of pleasure after risky behaviors [31].

### Risky social behavior

Some MSM who practice chemsex admit that they take certain doses and combinations of drugs to overcome

personal limits. Sometimes, however, the same means begin to turn pleasure into an experience of consumerism. The other person is “consumed” just as the drug was used a moment ago. The quantity of intercourse becomes more important than the quality [32]. In the study “Sex and nightlife: Risky sexual behavior and young people’s attitude toward STIs”, the experience of unwanted sexual contacts was reported by 17.8% of the respondents, of whom 63.6% were under the influence of psychoactive substances at that time. Approximately 6.4% of the respondents were offered drugs for sex, of which 15.5% accepted the offer [2]. Another threat is the loss of time. This results from the fact that the effects of taking a substance in a chemsex session can last from 4 hours to even 4 days, so the time needed for sobering up should also be taken into account [33]. Insufficient sleep due to several days of chemsex sessions may also be associated with this loss of time. As a consequence, it leads to disorders of cognitive processes, as well as weakening the mental and physical condition of the taker [34].

## RISKY BEHAVIOR AND PSYCHOACTIVE SUBSTANCE USE

An important issue to be discussed is the demonstration of the relationship between the use of a psychoactive substance and subsequent risky sexual behavior. This relationship exists because psychoactive substances used in chemsex help to overcome fear and doubts about such behavior [35]. Among MSM, sexual drug use is associated, as we have seen, with a high chance of risky sexual behavior [36]. The EMIS study mentioned above claims that from a behavioral point of view, chemsex is associated with an increased number of sexual partners, group sex, having sex without a condom, fisting, sharing sex toys, injecting drugs, and drinking more alcohol [15]. In an online cross-sectional study conducted across Scotland, Wales, Northern Ireland and the Republic of Ireland, where 1 in 16 MSM men reported having engaged in chemical sex in the past year, these men reported group sex, exchanging sex for non-financial gain, and HIV-positive status [37]. Drug use at parties is strongly associated with high-risk sexual behavior, and regular consumption of GHB/GBL changes cognitive functions, in particular memory and the management of emotion [38]. Such effects of the substance may impair the ability to control one’s actions and promote risky sexual decisions. Further evidence that psychoactive substances are related to risky sexual behavior is the fact that, according to research, users of the so-called new psychoactive substances (NPS) show riskier behaviors compared to the control group [39]. The relationship can also occur in the opposite direction. A personal tendency towards risky behavior may contribute to the use of stimulants. People at risk of developing addic-

tion and related behavioral problems include those with high levels of impulsivity, anger, avoidance and sensitivity to rewards. People exhibiting these characteristics may be prone to problematic alcohol abuse [40].

## DISCUSSION OF THE LIMITATIONS OF THE RESEARCH REPORTED AND NEW DIRECTIONS OF RESEARCH

Undoubtedly, it should be noted that the cited empirical data come from research with certain limitations, which include the fact that the entire issue of chemsex has only recently attracted the interest of researchers. For this reason, there is a lack of both long-term longitudinal studies and studies that observe how changing a sexual identity over the course of life may influence changes subjects’ habits in the practice of chemsex. The suggestion comes to mind that it would be valuable to conduct the above-mentioned long-term longitudinal studies so as to deepen our knowledge about the issues discussed. Another valuable direction of research seems to be an attempt to deepen our knowledge about the practice of chemsex by people from the heterosexual and heteronormative population and women of all orientations, because the available research is dominated by men from the MSM population. It is also worth obtaining more data on minority stress as one of the possible causes of the entire chemsex phenomenon. This issue should also be re-examined, taking into account larger samples of respondents and new variables, e.g. heterosexism in the case of people from the LGBTQ+ community. If study participants use chemsex as a self-destructive form of coping, preventive steps should be taken, such as psychoeducation in developing and adopting adaptive strategies for coping with stress.

## CONCLUSIONS

The phenomenon of chemsex among MSM is associated with specific types of psychoactive substance. We distinguish, in particular, stimulants, disinhibitory agents and other agents that cannot be assigned to the above two groups. Factors increasing the risk of the perisexual use of psychoactive substances include individual personality traits, previous mental health and addiction problems, preferences for risky sexual behavior, and in particular minority stress. The motivation for engaging in chemsex may be the desire to increase the pleasure of intercourse and intensify sensation, as well as the desire to make it easier to establish and maintain contacts with potential sexual partners. Minority stress and the desire to reduce it may also be the reason for reaching for drugs before, during or after intercourse. Minority stress, in a concept that emphasizes the socio-cultural context, has implica-



tions for the occurrence of discrimination and psychological violence. Chemsex involves a number of aspects that constitute increased risk factors for an individual's well-being. Areas of functioning at risk include, in particular, physical health and an increased risk of addiction

and risky social behavior. There is a clear connection between taking the drug before, during or after sexual intercourse, as it helps overcome fear and doubts about risky sexual behavior.

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### Conflicts of interest

Absent.

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Absent.

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