Venturing beyond the Behavioural MSM: "Sex, Chems, & Satisfaction" in their Syndemic Contexts

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BACKGROUND: The health and well-being of those sexual-minority men who are often behaviourally defined as men who have sex with men (MSM) is affected by a system of interlinked factors that interact on the structural, interpersonal, and individual levels. Recently, two of the most common MSM health issues have been (a) the risks of acquiring sexually transmitted infections (STIs), mostly HIV, and (b) the sexualized use of addictive substances, known as chemsex. **AIMS:** On the basis of the first comprehensive Czech dataset to integrate several mutually interlinked factors on the behavioural, as well as the psychological and structural domains, we attempt to shed light on the barriers to HIV testing and adherence to safer sex practices, including the most thorough description of the chemsex phenomenon that is available. We aim to go beyond the behavioural perspective and draw links to the well-being and satisfaction of this sexual minority and their sex lives. **METHODS:** A series of descriptive statistical analyses was conducted on a sample of 547 respondents obtained within a self-administered online survey. **RESULTS:** More than half of our respondents (55%) and three-quarters (72%) of the men younger than 25 years have never been tested for HIV. One-third of the respondents considered testing services to be insufficiently friendly to gay, bisexual, or other men, and they also reported stigmatization and discrimination by healthcare workers as a problem that exists. 84% of the MSM have experience with anal sex; 43% of them always use condoms. Of all the respondents, nearly 6% have had at least one chemsex experience during their life. Only 46% of the MSM reported being satisfied with their sex lives; 52% of those who were dissatisfied attributed this to "not having a steady partner" and 49% to "not having any sex". **CONCLUSION:** The sexual behaviour of MSM and their experience with HIV testing, chemsex, perceived stigma, and satisfaction with their sex lives are among the phenomena that deserve to be more regularly covered by relevant epidemiological examinations. Although our current analysis was more exploratory than in-depth, it may contribute to a better understanding of the syndemic and multifactorial conditions that influence the sexual behaviour of MSM, including the minority stress that may be rooted in deficiencies in our understanding of these populations.

Keywords | MSM – Stigma – HIV – Sexual behaviour – Chemsex – Substance use – Condom use – Syndemic

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1 RESEARCH BACKGROUND

Health and well-being in sexual minority populations are among the topics intensively studied on an international scale (Hatzenbuehler, Bränström, & Pachankis, 2018; Pachankis & Bränström, 2018; Pitoňák, 2017). Evidence suggests that the health and well-being of sexual minorities are affected by factors influencing them at several levels – structural, interpersonal, and individual. The structural levels include conditions and factors such as societally and culturally rooted stigmatization and institutional and legal discrimination against sexual minorities (Pachankis et al., 2016). The most common interpersonal factors include interpersonal forms of homonegativity such as hate speech, bullying, or everyday microaggressions (Pitoňák & Spilková, 2016). The individual level is then mostly influenced by psychological and domestic effects, which are moderated by appraisal or by ameliorative conditions such as family or peer support.

However, all of the elements of this framework are interconnected via a common element, described as stigma-related stress or minority stress, which is structurally rooted, interpersonally and normatively exercised, and individually experienced (Meyer, 2003; Pitoňák, 2017). To this day, international research has accumulated substantial evidence to demonstrate that a higher prevalence of some personal issues (anxiety, depression, mood disorders, substance abuse, etc.) not only has an identifiable common link to minority stress but also has a synergistic effect on ill health within sexual minority populations, for example, by increasing the risk of HIV transmission (Halkitis, Wolitski, & Millett, 2013; Mravčík, Pitoňák, Hejzák, Janíková, & Procházka, 2018). This form of a mutually interlinked complex causal system was described as syndemic, and contemporary approaches sensitive to this perspective even use the term "syndemic approach" (Singer, Bulled, Ostrach, & Mendenhall, 2017). Halkitis et al. (2013) were among the first to provide a detailed framework of syndemic factors influencing health in sexual minority men. Their research showed interactions between different health problems such as sexually transmitted infections (STIs, most commonly HIV), mental health, substance use, or sexual abuse.

The syndemic approach is characterized by its focus on the synergistic effects of multiple problems that share three common aspects: a) clustering, b) interactions, and c) the influences of societal factors (Pitoňák, 2018). The very fact that the syndemic approach stresses societal and structural factors as leading causes distinguishes it from other biomedical[1] approaches.

In this article, we seek to illuminate a small fraction of a syndemic that affects health and well-being in Czech sexual minority men. To do so, we will present and discuss an analysis of the results of the first Czech behavioural study conducted among sexual minority men or MSM[2] (men who have sex with men). We aim to contribute to a better understanding of the efficiency of and barriers to HIV/STI testing and/or condom use, which are the primary preventive tools available for the prevention of HIV and other STIs that disproportionately affect MSM (Halkitis et al., 2013; Mravčík, Pitoňák, Hejzák, Janíková, & Procházka, 2017).

Within the European context, several barriers to HIV testing among MSM have been recognized (Deblonde et al., 2010). These include low risk perception, fear and worries, accessibility of health services, reluctance to address HIV and to offer testing, and scarcity of financial and well-trained human resources (Deblonde et al., 2010). One of the indicators of condom use is condom use for intercourse with a non-steady partner in the last year. In the most recent European MSM Internet Survey (EMIS), condoms were never used in 10% and used seldom in 9.4%, sometimes in 11.4%, mostly in 28.4% and always in 40.8% of such cases (The EMIS Network, 2019).

In this contribution, we intend to venture beyond the context of the traditional HIV/STI preventive approach and take into consideration other factors that may endanger the well-being of MSM or lead to their higher risk of acquiring HIV or another STI. In so doing, we designed a new questionnaire, for the first time in the Czech Republic, with variables measuring perceived barriers to testing, current trends in condom use, the frequency of anal sex, the extent of the high-risk sexualized use of substances (also known as chemsex) and satisfaction with one's sex life. We studied multiple possible relationships between the above-mentioned phenomena to test our hypothesis as to whether chemsex practices may be connected with individuals' low satisfaction with their sex lives. The results of this research may contribute to reversing the growth of reported HIV cases in the Czech Republic, as well as to alleviating parts of the minority stress that may be rooted in deficiencies in our understanding of MSM as one of the societal sub-groups.

2 METHODOLOGY

This article draws on data collected as part of a behavioural study conducted under the auspices of the National Institute of Public Health (SZÚ) to fill the gaps in available data regarding HIV/STI prevention in MSM and specifically about sexualized use of addictive substances (Chemsex) and other aspects necessary for understanding the syndemic in MSM. The original study design was inspired by the first European MSM Internet Survey (EMIS, 2010).

In accordance with good practice in researching sexual minority populations, this study was designed as a self-administered online questionnaire with elements of snowball sampling (Browne, 2005). The questionnaire was based on

1 | The syndemic approach should thus not be confused with approaches studying comorbidities.

2 | This is not intended to erase sexual identitarian terminology, but rather to respect the institutional frame within which the team of collaborators conducted this research.

an open-source application, LimeSurvey, and administered via the website drogy-info.cz, belonging to a partner institution, the Office of the Government of the Czech Republic. The data collection started on 24 October 2017 and ended on 31 January 2018.

The sampling process was promoted online via adverts on multiple community websites, in Facebook groups, and also via bidirectional promotion with the almost simultaneously conducted new wave of the international EMIS 2017 survey.

In addition, the sampling process was enhanced by 10,000 business cards distributed in cooperation with the Czech Help AIDS Society at multiple community venues and event-based HIV testing points (e.g. during the Mezipatra film festival), as well as specialized HIV/AIDS care units frequented by MSM in all major Czech cities.

2.1 Measures

The sexuality of the participants was measured by sexual attraction and reported past sexual behaviour. The questionnaire was divided into several parts focusing on the following major areas: sexual practices with steady and non-steady partners; condom use habits; experiences with testing and barriers to testing (both HIV and different STIs separately); the extent of licit and illicit substance use and, specifically, a set of questions used for distinguishing chemsex from non-sexualized use of substances. Lastly, we included a question about the respondents' satisfaction with their sex lives and one on their experience with psychological or psychiatric care.

The respondents were typically asked to select a predefined answer option (e.g., degree of agreement/disagreement; time interval; frequency, etc.). The options on frequency of behaviour ranged from "never" to "last week". A blank field for open-ended questions was most frequently used when the respondent selected the "other" option.

2.2 Statistical analysis

Scale variables were characterized by means and medians; categorical variables were expressed as counts and percentages. Pearson's chi-square test was used to evaluate between-group differences for the categorical variables. All statistical analyses were performed using IBM SPSS Statistics for Windows, version 24.0 (Armonk, NY: IBM Corp). Results with p-values lower than 0.05 were considered statistically significant.

2.3 Characteristics of the sample

In total, 547 respondents completed the questionnaire, with 540 self-identified as men and seven self-identified as transgender (5 FtM; 2 MtF). The age of the respondents ranged from 15 to 69 years; 15 was set as the minimum age for participation. Seven respondents did not report their age. The average age was 26.2 years and the median age was 18 years.

A majority of the sample (58%) consisted of respondents up to 24 years. In more detail, the 15–19, 20–24, 25–29, and 30+ age groups comprised 31.9%, 26.1%, 14.6%, and 27.4%, respectively.

Based on place of residence, more than one-quarter of the respondents (28%) lived in the capital city (Prague), 21% reported living in major cities of between 100 and 499 thousand inhabitants (in the Czech Republic – Brno, Ostrava, Plzeň, Liberec, and Olomouc). Nearly 43% of the sample lived in one of the three biggest cities (Prague, Brno, and Ostrava). With increasing age, there were more respondents from major cities. This may have been caused both by sampling bias and by the fact that sexual minority men tend to concentrate in larger cities in the course of their lives.

Half of the respondents younger than 25 years reported having completed secondary school (53%), and nearly one-third (30%) reported having completed or pursuing university education. The analogous figures for respondents aged 25 and over were 44% and 48%, respectively. Respondents from smaller settlements reported lower educational attainment. Regarding occupation, 78% of the respondents under 25 years were students and 18% were employees, while the participants aged 25+ were mostly (73%) employees or self-employed (14%); 2% reported being retired or unemployed.

Self-reported sexual attraction	per cent	N
Attracted only to men	75.9%	415
Attracted mainly to men but sometimes to women	17.0%	93
Balanced (or bisexual) sexual preference	4.4%	24
Attracted mainly to women but sometimes to men	2.0%	11
Attracted only to women	0.3%	2
Not sexually attracted to anyone	0.3%	2
Total	**100%**	**547**

Table 1 | Sample distribution of the self-reported preference of sexual partner's sex/gender

Table 1 shows the composition of the sample according to the respondents' sex/gender preferences regarding their sexual partners. Most of the men (76%, n = 415) reported that they were sexually attracted[3] to men only and 17% (n = 93) mainly to men but sometimes to women, while 4% (n = 24) were bisexual, equally attracted to both men and women.

3 | Because of the institutional aims of this research, our primary goal was to conduct an epidemiological study; this was also determined by the institutional setting in which this research was conducted. As a consequence, the behavioural factors were considered primary, and we did not ask the respondents about their self-declared sexual orientation/identity and focused only on the behavioural perspectives. Future studies should include all aspects, including behaviours, ideation/preference, and self-identification.

The remaining 3% of the respondents preferred women or exclusively women (n = 11; n = 2), and two respondents reported not being attracted to people of any sex/gender. We did not record any significant differences between the respondents' sexual preferences with regard to age.

3 DISCUSSION OF RESULTS

3.1 HIV testing & barriers

HIV testing represents a cornerstone of modern prevention in its primary and secondary forms. In the context of MSM, the European Centre for Disease Prevention and Control recommends that testing should be provided anonymously, always on the basis of the individual's informed consent, and free of charge. More recent recommendations also stress the need for community-based testing and counselling services, which could take advantage of rapid testing methods (ECDC, 2015).

One of our most alarming results was that more than half of the respondents (55%, n = 301) had never been tested for HIV (*Figure 1*). As for those tested at least once, 43% (n = 235) received a negative test result, and 1.3% (n = 7) received a positive result. Four men (0.7%) were tested with a reactive result without further confirmation. Almost three-quarters (72%) of the men younger than 25 years had never been tested for HIV. A more detailed view shows that the proportion of those who were untested was 84%, 58%, 39%, and 26% in the 15–19, 20–24, 25–29, and 30+ age groups, respectively.

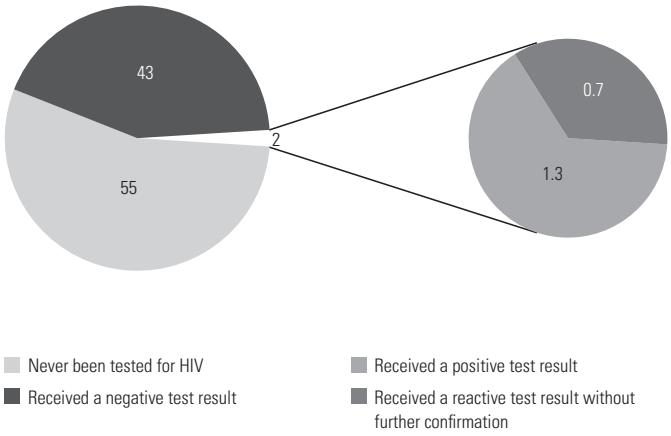

Figure 1 | Answers to the question "Have you ever been tested for HIV?" (n = 547, percentages)

To gain a better understanding of these results, an array of questions was included to identify the potential barriers to HIV testing.

The results show that only three-fifths of the respondents were not worried about undergoing an HIV test. The remaining one-quarter reported being concerned "neither/nor" and 15% of the respondents admitted to being rather worried (9.4%) or definitely worried (5.7%). The proportion of those worried was 19% and 9% in the 15–24 and 25+ age groups, respectively. We also included an additional question, "Do you perceive any additional barriers to testing?",[4] and, on the basis of our literature review, we operationalized three main options to determine factors that may play major roles in the Czech testing environment. The results in *Table 2* show that almost every third respondent felt stigmatized and discriminated against by healthcare workers within the context of testing (30.9%). One-third of the respondents (32.4%) felt that testing services are insufficiently friendly to gay, bisexual, or other men. The very fact of receiving a positive test result and its consequences (including limitations at work and limitations in their sex life) was considered an important concern.

Perceived barrier to testing	Never been tested (n = 301)	Tested at least once (n = 246)	Total (n = 547)	p-value
The testing environment is insufficiently friendly to gay, bisexual, or other men	35.2%	28.9%	32.4%	0.114
HIV stigma and discrimination by healthcare workers	38.9%*	21.1%*	30.9%	<0.001
Language and/or cultural barrier	2.7%	4.1%	3.3%	0.359

Table 2 | Perceived barriers to HIV testing

Interestingly, we noticed significant differences in the perceived barriers between respondents who had an actual experience with testing and those who had never been tested. Our data suggests that the presumed stigma and discrimination by healthcare workers may not be so strong in reality. The difference in the perceived stigma in testing between those who had been tested (21.1%) and those who had never been tested (38.9%) is substantial ($p < 0.001$). This leaves some space for the improvement of communication strategies and advertising of these services among the key groups.

3.2 Anal intercourse and condom use

Regarding sexual intercourse, in the context of assessing the vulnerabilities of acquiring/contracting HIV/STIs, it is the practice of passive (receptive) anal intercourse followed by active (insertive) anal intercourse that is regarded as "riskiest" (Mravčík et al., 2017). Oral sex is an extremely low-risk practice (Patel et al., 2014).

A total of 89 men (16%) said they had never had sex. In the 15–19 age group, there were 30% of such men, compared to 8–10% in other age groups (20–24, 25–29, 30 and over).

4 | The original questionnaire was in Czech.

We asked the men who had had anal sex (n = 458) whether their last episode of anal sex was protected by condom use. A condom was used during the last episode of anal sex by 195 men (43% of those who had ever had anal sex). There were no statistically significant differences in the proportion of condom use among the four age groups that were analysed (p = 0.842). 1% of the men were unsure about using a condom.

One-fifth (22%, n = 85) of the 392 men with a history of anal sex during the last 12 months had no anal intercourse with their steady partner during this period. This proportion varied significantly depending on age (p = 0.002) and was higher in the 30+ (34%) and 15–19 age groups (22%) compared to men aged 20–24 (14%) and 25–29 (14%). Only 44% of the above-mentioned 392 men reported having had more than ten episodes of sexual intercourse during the last 12 months. Of the 307 respondents who had anal intercourse with their steady partner during the last 12 months, 45% never used a condom, 20% (62 men) always used one, 18% rarely, and 17% used one mostly or sometimes. There were no significant differences between the four age groups (p = 0.231), although the proportion of men who never used a condom increased somewhat with age (39% in the 15–19 and 20–24 age groups, and 59% among those aged 30 and over).

During their last anal sex session with their steady partner, 90 of the men (30% of those having any sex with a steady partner during the last 12 months) used a condom. The proportion was similar in the 15–19, 20–24, and 25–29 age groups (31%–36%) but it was considerably lower (19%) in the group aged 30 and over. The most frequently reported reason (82%) for not using a condom was a conviction that having a steady partner is in itself the only reason and a sufficient one. The second most frequently mentioned reason was that the use of condoms diminished their sexual experience (23%).

In contrast to steady sexual partners, among the respondents who reported having anal sex with non-steady sexual partners (37%, n = 203) in the last 12 months, 44.5% always used condoms, 27% used them mostly or sometimes, 22% never used condoms, and 6.5% used them sometimes. This characteristic did not change significantly with age (p = 0.624). The three most frequent reasons for not using condoms with non-steady partners included "not having one" (35%), "did not want to disturb the sex" (21%), and "a condom has a negative influence on my erection" (16%).

3.3 Substance (ab)use

Combining addictive substances (especially alcohol) with sexual activity is a hardly surprising and not-so-uncommon phenomenon. Permissive social norms and popular culture actually perpetuate their use, for example, during courtship, as evidenced by ubiquitous representations in the media, advertising, films, etc.

In order to ascertain how commonly substances are used during sex, we included a question asking our respondents whether they had used any substance (including alcohol) during their last episode of sex with a non-steady partner. No substance was used in two-thirds (66%, n = 186) of the 284 cases when the men had casual sex. Both partners used some substance in 27% of cases (n = 76). Only one partner used some substance during sex in fifteen cases (5%). The most frequent substance was alcohol (*Table 3*), used by over 90%.

Which drug did you take during your last episode of sex?	**per cent**	**n**
Alcohol	91.7%	77
Poppers (nitrites)	21.4%	18
Marijuana	11.9%	10
Pervitin (methamphetamine)	7.1%	6

Table 3 | Substances* used during the last episode of sex among the 91 participants who used any substance during their last episode of sex with a non-steady partner
* we excluded the "other" category from this table

Poppers (nitrites) were the second most frequently reported substance used (every fourth episode of sexual activity with a casual partner). This was not surprising since nitrites are popular among MSM as myorelaxants that especially facilitate anal intercourse for the receptive partner. The third most frequently used substance was marijuana, and *pervitin* (methamphetamine) was used occasionally.

More than one-tenth of the respondents (11%, n = 58) reported being worried because of the frequency of their alcohol drinking. There were no differences according to age, education, or housing in this indicator.

3.3.1 Chemsex

One of our main aims was to map the extent of the sexualized use of drugs known as chemsex (for details about this phenomenon, see Bourne, Reid, Hickson, Torres-Rueda, & Weatherburn, 2015; Uhloyeva, 2018). The primary characteristic of chemsex is sexual motivation to enhance and/or increase sexual enjoyment. It is often accompanied by participating in online social networks (such as Grindr) which facilitate access to sexual partners and help sort them according to their willingness to participate in riskier sexual behaviours and group sexual activities.

Legal drugs such as alcohol and tobacco, as well as poppers or marijuana, are not typically counted as chemsex drugs. Typical drugs for chemsex may be divided into (a) stimulants – *pervitin* or methamphetamine, cocaine, mephedrone, etc., and (b) depressants – GBL/GHB, ketamine, etc. (Bourne et al., 2015; Maxwell, Shahmanesh, & Gafos, 2019). Although it is difficult to draw a distinction between sexual and non-sexual primary motivations for drug use (especially recognizing that there may be various transitional situations), we included a specific question to measure this: "Have you ever used some drug (other than poppers,

alcohol, or tobacco) primarily to increase your sexual experience?" As we did not count marijuana as a chemsex drug, we excluded respondents using only marijuana (n = 29) during sex, as well as five respondents who failed to provide information about the substance used.

Overall, nearly 6% of the respondents (5.7%, n = 31) admitted having at least one experience with chemsex during their life. The proportion was significantly higher ($p < 0.009$) among older respondents over 25 years of age compared to younger ones (*Figure 2*). The literature suggests that chemsex is not related to personal immaturity but rather to a more complex set of previous experiences in one's life such as relationship problems, experienced stigmatization, etc. (Race, 2016). According to a report on chemsex use among MSM across thirteen different European cities (Rosińska et al., 2018), the prevalence ranged between 0% and 14%, with no clear-cut pattern between the Eastern or Western metropolises. Epidemiological data on chemsex in Central and Eastern Europe remains largely unavailable.

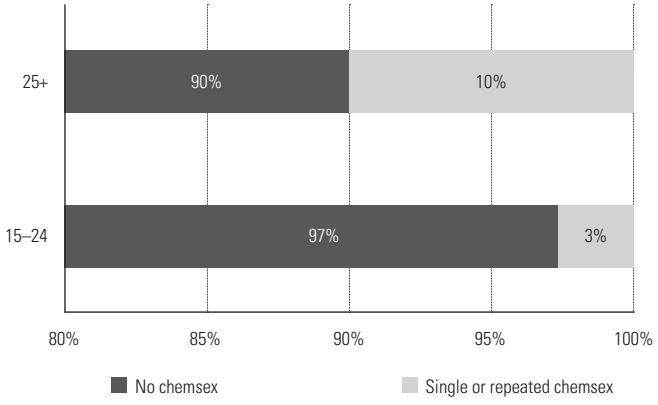

Figure 2 | Chemsex experience by age percentages (axis begins at 80%)

On the basis of our results, nearly three-quarters of the respondents who reported chemsex use had repeated experience with it (77%, n = 24). The majority of chemsex users used stimulants (58.1%, n = 18), 35.5% combined stimulants with depressants (n = 11), and two individuals (6.4%) used only depressants. Intravenous application was reported in four cases; in such a situation, there are additional risks related to injecting (syringe sterility etc.).

More than two-thirds (71%, n = 22) of the chemsex users reported using methamphetamine. Some users mentioned polydrug use. Six users named GHB (γ-*Hydroxybutyric acid*) as the last chemsex drug they had used, four men had used ketamine, and the same number reported cocaine. Of the less frequently used drugs, the respondents mentioned ecstasy (probably MDMA). Mephedrone was not mentioned.

Men who knew someone who is HIV positive reported more chemsex experiences than those who did not know anybody living with HIV (14.6% vs. 2.4%, $p < 0.001$), which suggests that the relationship between chemsex, contact with people living with HIV, stigma, and STI prevention needs to be investigated further. The use of chemsex among university students and graduates was insignificantly less common ($p = 0.122$) than in lower-educated respondents (3.4% vs. 7.0%). Chemsex use was higher and the between-group differences more pronounced in men aged 25 and over (5.6% vs. 14.5%, $p = 0.046$) compared to younger respondents (1.1% vs. 3.2%, $p = 0.470$). Rosińska et al. (2018) also reported more frequent chemsex experience among men living with HIV and/or those with a history of STI.

In addition, chemsex is often discussed as an urban or even metropolitan phenomenon. Our results support this since men living in Prague reported repeated chemsex experience more often (7.8%) than men coming from smaller settlements and/or rural areas (3.0%), $p = 0.014$. In both Prague and other areas, chemsex use was higher in the 25+ age group (10.0% vs. 6.6%, respectively). When asked about their last chemsex session, slightly more than one half of the respondents reported engaging in chemsex only with one partner (55%, n = 17), while the other half (45%) reported engaging in a group sexual activity (three or more persons).

As chemsex involves the use of substances with various consciousness-altering, stimulating, or disinhibiting effects, we wanted to understand better how it may interfere with maintaining safer sex practices (e.g. using condoms or applying other strategies to reduce the risk of acquiring an STI). Our results show that only less than half of the 31 chemsex users (45%) were able to maintain safer sex rules even while engaging in chemsex. Another group of men (26%) wanted to maintain safer sex rules, but they were not successful in all cases. More than one-quarter (29%) did not care about safer sex rules. Two men said that it was mostly hardly possible to maintain safer sex rules. Four men did not answer this question.

Chemsex users had been tested for HIV significantly more often than the rest of the sample ($p < 0.001$). The share of the respondents who had never received an HIV test result is 57% for those who never engaged in chemsex, and 23% for those who engaged in it at least once. Regardless of these results, the rate of HIV testing among chemsex users still needs to be increased.

As chemsex has been theorized, among other things, as interrelated with (a) efforts to intensify the sexual experience between MSM, (b) enabling contacts between sexual minority men, and (c) being a form of escape from negative emotions (Uholyeva, 2018), we dedicate the last section to describing the state of our respondents' satisfaction with their sex lives and attempting to identify barriers to sexual well-being that may contribute to understanding the wider structural, and/or other syndemic, factors at play.

3.4 Satisfaction with sex life

In general, our respondents reported rather low satisfaction with their sex lives. Only 46% mentioned being rather satisfied or definitely satisfied (29% and 17% respectively),

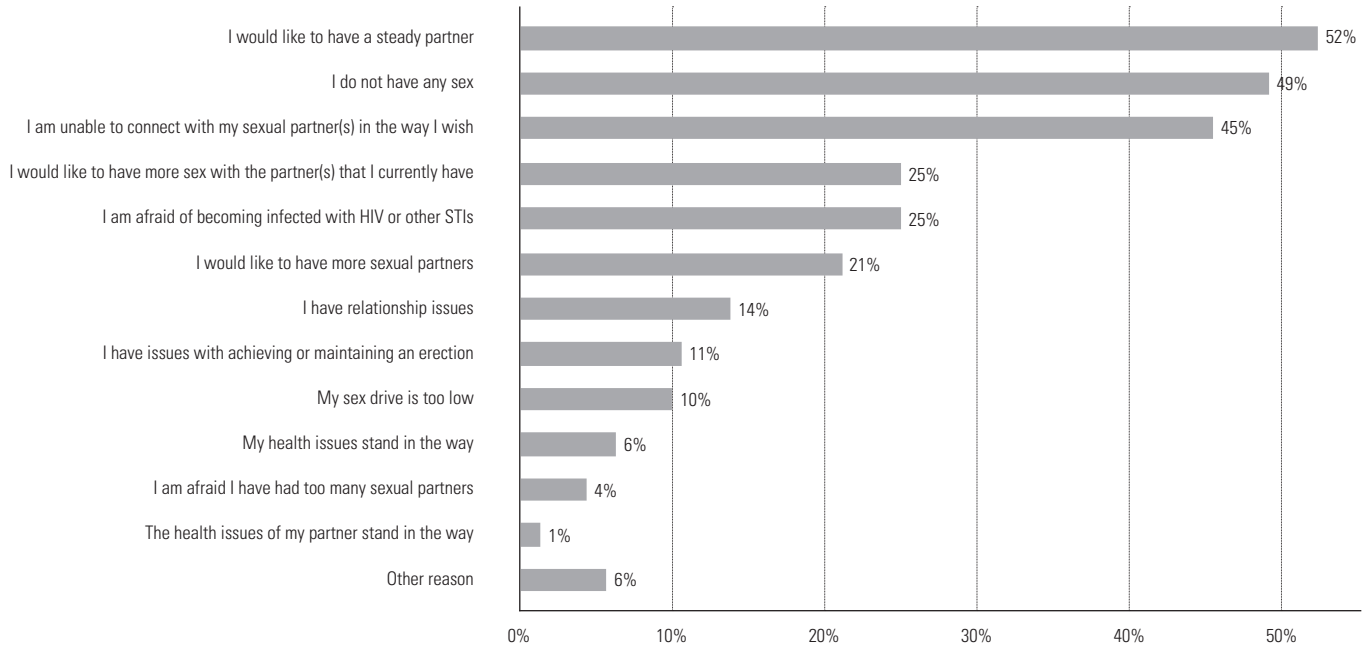

Figure 3 | Answers to the question "What is the reason for your dissatisfaction with your sex life?" in 161 men who were rather or definitely dissatisfied with their sex life

24% were hesitant about being or not being satisfied and 30% (n = 161) reported not being satisfied with their sex life (22% rather dissatisfied, 8% definitely dissatisfied). When we compared the results between the groups of younger men (≤ 24y) and the group of older men (≥ 25y), we found that the younger men were somewhat less satisfied with their sex lives. These results, however, were not significant (p = 0.159), and they may be part of the much more complex workings of difficulties during the adolescent phase of sexual maturation in sexual minorities as they are expected to adapt to the heteronormative environment. This life phase, often described as "coming out", is far from uncomplicated, as it is connected to psychological distress and appraisal of the minority stress; the discussion of these factors, however, goes beyond the scope of this article (for more, see Hatzenbuehler, 2009; Pitoňák, 2017).

To gauge these factors and to gain a better understanding of the reasons for the respondents' dissatisfaction, an additional question was directed specifically to the 161 respondents who were dissatisfied with their sex lives. As shown in *Figure 3*, the most common reason for sexual dissatisfaction was the very fact of "not having a steady partner" (52%), followed by "not having any sex" (49%) and a reported "inability to connect with sexual partners" (45%).

We ran a series of statistical cross-tabulations to measure whether the most common cause of sexual dissatisfaction, the absence of a steady partner, is significantly connected to chemsex, or whether sexual dissatisfaction as such predicts chemsex. However, our results were not statistically significant. The only statistically significant (p = 0.006) relationship that we found was one between reported satisfaction with one's sex life and self-reported contact with psychotherapeutic or psychological care in the past 12 months

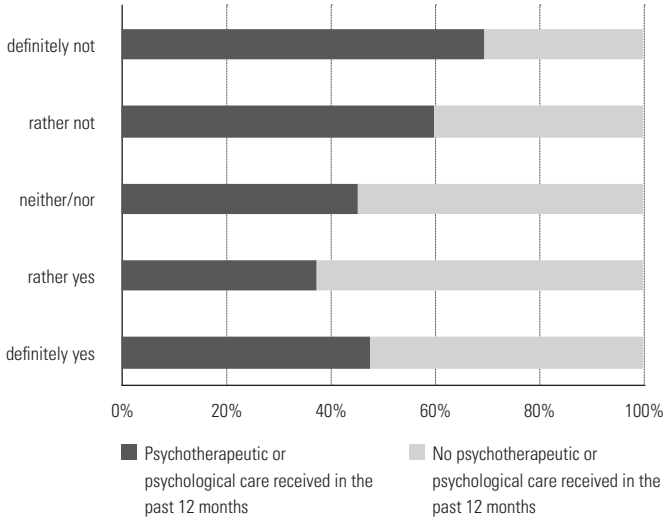

Figure 4 | Comparison of satisfaction with sex life between respondents who sought psychotherapeutic or psychological care in the past month and those who did not

(*Figure 4*). These results suggest that the interrelations between satisfaction with one's sex life and substance (ab)use are more complex and require more detailed investigation in future.

4 CONCLUSION

This research study attempted to provide a first brief insight into the complex domain of factors that syndemically affect the health and well-being of MSM or sexual minority men. We aimed to connect the traditional, more behavioural concerns in HIV/STI prevention with a perspective sensitive to the workings of more socially and structurally rooted factors such as stigma, discrimination, or various interrela-

tions between the use of addictive substances and self-reported satisfaction with sex life among MSM.

Our results showed that as far as HIV testing is concerned, testing services are not used by a large proportion of MSM. More than half of all the respondents (55%, n = 301) had never been tested for HIV. However, in young men aged 20–24 and 15–19 years, this proportion was as high as 58% and 84%, respectively. The design of our study attempted to go beyond the behavioural factors and identified several barriers to testing. One-third of the respondents felt that testing services were insufficiently friendly to gays, bisexuals, or other men, and they also reported stigmatization and discrimination on the part of healthcare workers as a problem that existed. Interestingly, our research found significant differences between a higher "expected stigma" among those respondents who had never been tested and a lower "reported stigma" among those who had been tested at least once. These results may inspire improvements in communication strategies and provide insights into appropriate ways of future destigmatization of HIV prevention in the Czech Republic (Mravčík et al., 2017; Pitoňák, 2018).

Furthermore, we provided a detailed perspective on sexual minority men's sexual practices and especially their adherence to condom use. Similarly to the general population, the majority of MSM did not use condoms in sexual intercourse with their steady partners (43% of those who had ever had anal sex, and as little as 30% during their most recent anal sex session). We also found that in contrast to frequent reports of the over-sexualization of the "MSM community," only 44% out of the 72% of the sample (n = 395) who had had anal sex with their steady partners reported having more than ten episodes of sexual intercourse during the last 12 months.

In contrast to sex with steady sexual partners, our data shows that condom use was higher during anal sex with non-steady sexual partners (in total 37% had had such experience) in the last 12 months. More than two-thirds (65%, n = 132) used condoms always or mostly, 13% used them sometimes or rarely, and 22% never used condoms with non-steady partners. Similar results are, however, rarely compared with data available for the general population. According to the most recent Czech population study on sexual behaviour in the general population, men and women (combined) used condoms during sex with non-steady partners in 41% of the cases on average (Weiss, 2014).

Our research also aimed to provide better information about the extent of the sexualized use of drugs, known as chemsex, in the Czech Republic. In agreement with the findings from international studies (the prevalence of chemsex ranges between 0% and 14% in Europe), nearly 6% of our respondents admitted having at least one chemsex experience during their life. The most often used chemsex drug was methamphetamine (22 cases). Chemsex was more frequently used by older men and our data substantiates that as such it is a serious problem concentrated in a rather small part of the MSM community.

As we intended to anchor this research project within a more holistic approach, we also aimed to gain a better understanding of the challenges in sexual minority men's satisfaction with their sex lives. Although we have not been able to confirm any statistically significant links between dissatisfaction with one's sex life and chemsex, we have been able to identify several key reasons for the sexual dissatisfaction of MSM. Most of the men reported being dissatisfied with their sex lives because of the mere fact of not having a steady partner (52% of those dissatisfied) or lacking any sex (49%). It was perhaps because sexual minority men mature within a heteronormative environment posing as a barrier to socializing (e.g. "coming out") that inability to connect with sexual partners was the third most frequently accentuated reason (45%). The only significant connection concerning sexual dissatisfaction was one with a history of seeking psychological or psychiatric care. This and other partial findings highlight new potential avenues for future and more in-depth research in this area.

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