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Original article

High prevalence of drug consumption and sexual risk behaviors in men who have sex with men ☆

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ABSTRACT

Basis and objective: To describe the pattern of drug use among men who have sex with men (MSM) living in Spain and its association with sexual risk practices.
Material and method: The European MSM Internet Survey was implemented in 2010 in 38 European countries on websites for MSM and collected data on sociodemographics, sexual behavior, and other sexual health variables. The association between unprotected anal intercourse (UAI) with casual partners and drug consumption was evaluated using multivariate logistic regression models.
Results: Among the 13,111 participants, most consumed drugs were cannabis (30.1%), *popper* (28.4%) and cocaine (18.7%). The risk of UAI with casual partners was 1.5 among those who had used drugs in relation to the other participants. The proportion of MSM who had injected drugs at least once in life was 2.5%, and 1.4% in the last 12 months. The prevalence of UAI with casual partners (53.4%), human immunodeficiency virus (HIV) (23%), hepatitis C (8.2%) and sexually transmitted infections (STI) (15.8%) was higher in MSM injectors related to those who had not used injected drugs ($p < .05$).
Conclusions: The results of this study confirm a high prevalence of drug use in MSM and their relationship to sexual risk behavior. Although the use of injected drugs in MSM is a minority, this group reported a higher level of sexual risk behaviors, self-reported HIV, hepatitis C and other STI.

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Alto consumo de drogas recreativas y conductas sexuales de riesgo en hombres que tienen relaciones sexuales con hombres

RESUMEN

Fundamento y objetivo: Describir el patrón de uso de drogas en hombres que tienen relaciones sexuales con hombres (HSH) residentes en España y su asociación con las prácticas de riesgo sexual.
Material y método: La Encuesta Europea por Internet para HSH se implementó en 2010 en 38 países europeos y recogió información sociodemográfica y sobre conducta y salud sexual, entre otras. Mediante modelos de regresión logística multivariante se evaluó la asociación entre la variable penetración anal desprotegida (PANP) con parejas ocasionales y el consumo de drogas.
Resultados: Entre los 13.111 HSH encuestados, el cannabis fue la droga consumida con más frecuencia en los últimos 12 meses (30,1%), seguido del *popper* (28,4%) y la cocaína (18,7%). Los modelos de regresión logística ajustados mostraron un riesgo de PANP de 1,5 entre los consumidores de drogas en relación con

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los que no las habían consumido. El 2,5% de los HSH se había inyectado drogas alguna vez en la vida, y el 1,4%, en los últimos 12 meses. La prevalencia de PANP con parejas ocasionales (53,4%), de infección por el virus de la inmunodeficiencia humana (VIH) (23%), de hepatitis C (8,2%) y de infecciones de transmisión sexual (ITS) (15,8%) fue superior en HSH inyectores con respecto al resto de los participantes (p < 0,05).

Conclusiones: Se confirma una elevada prevalencia de consumo de drogas en HSH y su asociación con las conductas sexuales de riesgo. Aunque el uso de la vía inyectada en HSH es minoritario, el subgrupo de HSH inyectores presenta una mayor prevalencia de conductas sexuales de riesgo, VIH, hepatitis C y otras ITS.

Introduction

The association between drug use and risky sexual practices in the group of men who have sex with men (MSM) has been widely demonstrated.[1–3] The use of drugs in MSM is mainly "recreational", in a context of nightlife and/or to have sex, being perceived and/or explained by many men as isolated.[4] Another fact to bear in mind is the simultaneous use of various drugs that is observed in this group. Poly-use is also associated with a greater likelihood of having unprotected sexual relations.[5,6]

The use of recreational drugs such as inhaled nitrites (poppers), cocaine, amphetamines and ketamine is one of the risk factors associated with becoming infected with the human immunodeficiency virus (HIV) and acquiring other sexually transmitted infections (STIs).[7–9] Data from the Multicenter AIDS Cohort Study in HIV-negative MSM showed a risk of seroconversion of 8.45 in men who had used Viagra®, poppers and psychostimulant drugs in the last 6 months.[10]

In recent years, new phenomena related to the use of recreational drugs are being observed in London and France. These include "slamming" and "slam parties", which are a type of sex party among MSM convened from social networks. At these parties, drugs for injection such as methamphetamine and/or mephedrone are used, and unprotected sex is common.[11,12] According to a report by the UK National Treatment Agency for Substance Misuse,[13] among patients who recently visited a specific London clinic for treatment of drug use, a high percentage of MSM (55%) reported injected drug use.

In Spain, the use of recreational drugs by MSM has been explored previously in different cities,[6,14] but the use of drugs by the parenteral route has not. The data from these studies demonstrate an increase in the prevalence of use of these substances, with figures greater than those observed in the general population.[15] Bearing in mind the rapid increase in the use of new psychoactive drugs in European countries such as the United Kingdom and France,[11–13] exploring the patterns of use of injected and non-injected drugs in MSM is important for being able to develop early interventions.

The objectives of this study were to report the pattern of use of drugs in MSM residing in Spain and participating in the European MSM Internet Survey (EMIS) which was conducted in 2010, and to demonstrate its association with risky sexual practices in this group.

Materials and methods

The EMIS study forms part of a multi-centre project, funded by the European Commission (EU Health Programme 2008–2013), which was conducted in 2010. The inclusion criteria for the participants were residing in Spain, having reached the minimum age for consent to sexual relations (13 years of age in 2010), reporting feeling sexually attracted to and/or having had sexual relations with men, and having granted informed consent to participate in the study. Data collection was carried out between June and August 2010 using advertisements placed in the main Spanish and international web portals (banners) aimed at the gay public. The EMIS study protocol was approved by the University of Portsmouth Ethics Committee in the United Kingdom (REC application number 08/09:21). The methodology has been described in detail in previous studies.[16]

An anonymous structured questionnaire was used. This questionnaire gathered information on socio-demographic characteristics, sexual behavior with Steady and non-steady partners, sexual relations outside of Spain, sexual relations in exchange for money, alcohol and drug use, HIV test and result of the last test, history of STIs, and other information. The questions on sexual behavior and drug use referred to the last 12 months. Before implementing the survey, a pilot study of the questionnaire was conducted in a printed version and online to assess completion time, degree of acceptability and functioning in real conditions.

A steady partner was defined as a man considered to be a "boyfriend" or "husband" in a relationship, but not to refer to partners who are simply sex buddies. Non-steady partners were defined as partners other that steady partners. An occasional partner was a man one had one or more contacts with but did not consider to be a stable partner. Unprotected anal intercourse (UAI), was defined as the practice of anal penetration (inserting and/or receiving) in the last 12 months without always using a condom.

In considering drug use, a grouping pattern was sought using a factorial statistical analysis based on the purpose or context of drug use: recreational drugs used for the most part in the recreational context of nightlife (ecstasy, speed, crystal meth, mephedrone, liquid or acid ecstasy, gamma-hydroxybutyrate [GHB] or gamma-butyrolactone [GBL], ketamine, lysergic acid diethylamide [LSD] and cocaine), drugs for sex used exclusively to have sexual relations (poppers and drugs for erectile dysfunction such as Viagra®, Cialis® or Levitra®), "fringe" drugs linked to situations of social exclusion (heroin and crack) and cannabis (marijuana and hashish). The method for extracting the factors chosen was that of principal components. To confirm the suitability of this analysis, the Kaiser–Meyer–Olkin measure of sampling adequacy was calculated and Bartlett's sphericity test was performed. To facilitate interpretation of the results, a rotation was performed using the Varimax with Kaiser method. "Poly-consumption of drugs" was defined as the use of 3 or more different drugs at least once in the last 12 months, without this consumption necessarily being simultaneous. "Injecting MSM" was defined as participants who reported having used drugs by the parenteral route at some point in their lives.

Mean and standard deviations (SD) were calculated for quantitative variables, and frequency distributions were prepared for discrete variables. Multivariate logistic regression models were used to assess the association between the variable of UAP with occasional partners (last 12 months) and the use of grouped drugs, adjusting for age, country of origin, size of municipality of residence, level of education, sexual orientation, the degree to which people are open about their sexual attraction to others, number occasional partners and self-reported HIV status. Adjusted odds ratios and their respective 95% confidence intervals were calculated. The level of significance was set at 0.05.