Sexualized Substance Use among Sexual and Gender Minorities from Brazil, Mexico and Peru

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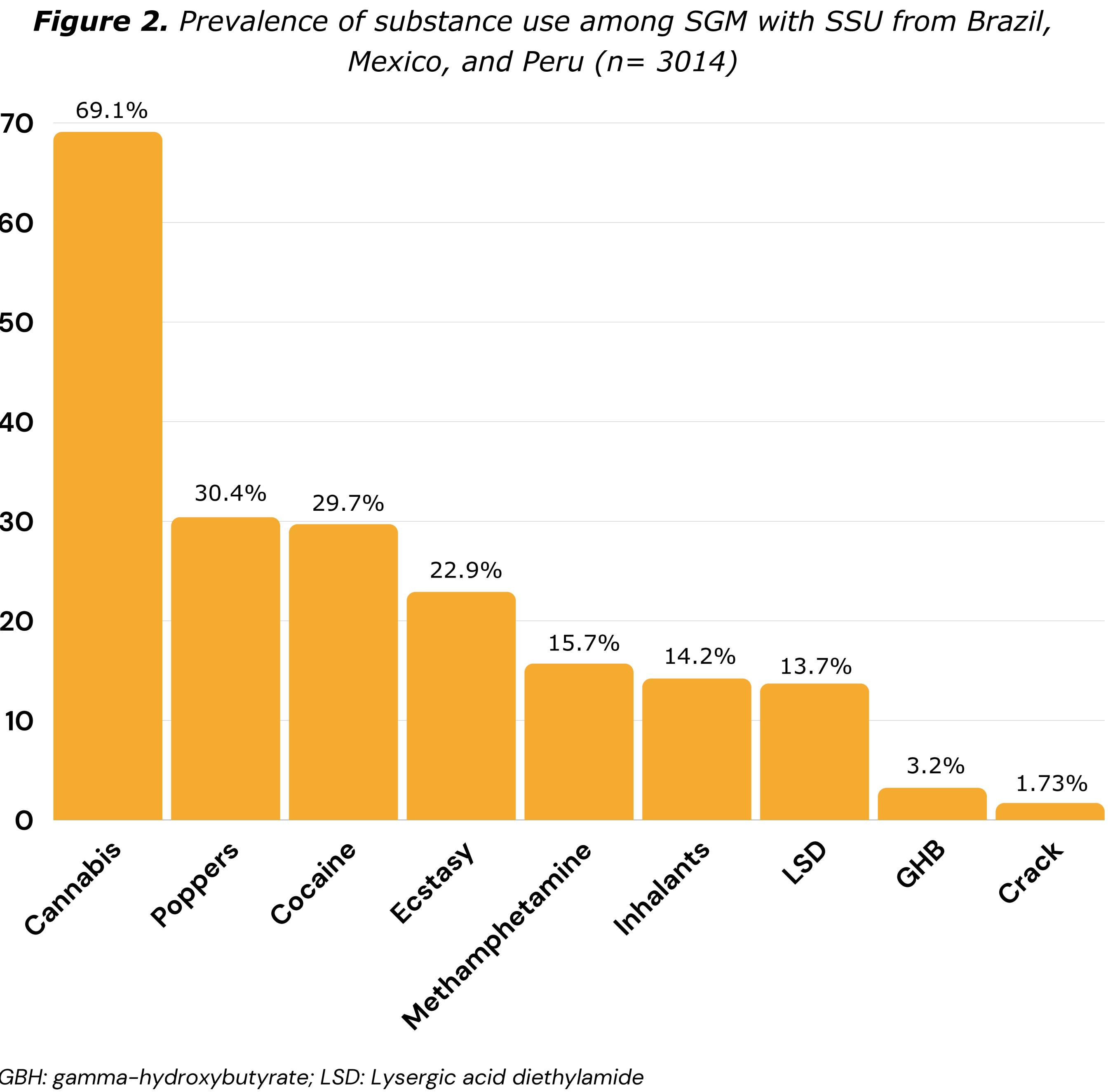
BACKGROUND

Sexualized substance use (SSU) is rising among sexual and gender minorities (SGM) in Latin America. This practice increases vulnerability to HIV and other detrimental health outcomes (i.e., depression) that could weaken the HIV prevention efforts in the region. We aimed to identify factors associated with SSU in a sample of SGM from Latin America.

METHODS

This study was a cross-sectional web-based survey among SGM from Brazil, Mexico, and Peru conducted in 2021. Participants were ≥18 years old, male assigned at birth, and not living with HIV (self-reported). We collected sociodemographic data, sexual behavior, use of geosocial networking (GSN) mobile applications for sexual encounters, substance use, sex under alcohol use, and previous PrEP use (all in the last six months). We also assessed depression using the patient health questionnaire (PHQ-2) and mental health well-being with the mental health module of the Short Form Health Survey (SF-36). We defined depression if the PHQ-2 score was ≥3. The question for SSU was: *In the last six months, have you used any illicit drugs before or during sex? (yes/no)*. We performed a logistic regression analysis, keeping all significant variables (*p*≤ 0.05) in the final multivariable model.

RESULTS

The final sample was 13,470 participants (60.6% Brazil, 29.2% Mexico, and 10.2% Peru) with a mean age of 32.9 (±9.1); of those, 12,918 (96%) were cisgender men, 432 (3.2%) non-binary, and 111 (0.8%) transgender women. More than half had had ≥secondary education (68.7%). Almost a quarter of all participants reported SSU (22.4%, 3014), with the Mexicans the most prevalent (26.3%, *p*< 0.001) (Figure 1). The most prevalent substances among this group were cannabis (69.1%), poppers (30.4%), and cocaine (29.7%) (Figure 2). In the past six months, most participants (75.6%) had any condomless anal sex (receptive or insertive), 40.5% had ≥6 sex partners, and 9.9% reported transactional sex. Conversely, only 1,295 (9.6%) were using PrEP at the moment of the survey, and 3.6% were past users. The mean score of mental health well-being was 20.4 (±5.0), and 21.5% had depression. Young individuals, Mexicans, non-binary, PrEP users, and those with sexual HIV exposure had increased odds of SSU; meanwhile, Peruvians and those with higher scores of mental health well-being had decreased odds of SSU (see Table 1).

Figure 1. *Prevalence of SSU among SGM from Brazil, Mexico, and Peru (n= 13,470)*

Mexico — 26.3 %
Brazil — 22.4 %
Peru — 11.2 %

Figure 2. *Prevalence of substance use among SGM with SSU from Brazil, Mexico, and Peru (n= 3014)*

Cannabis 69.1%; Poppers 30.4%; Cocaine 29.7%; Ecstasy 22.9%; Methamphetamine 15.7%; Inhalants 14.2%; LSD 13.7%; GHB 3.2%; Crack 1.73%
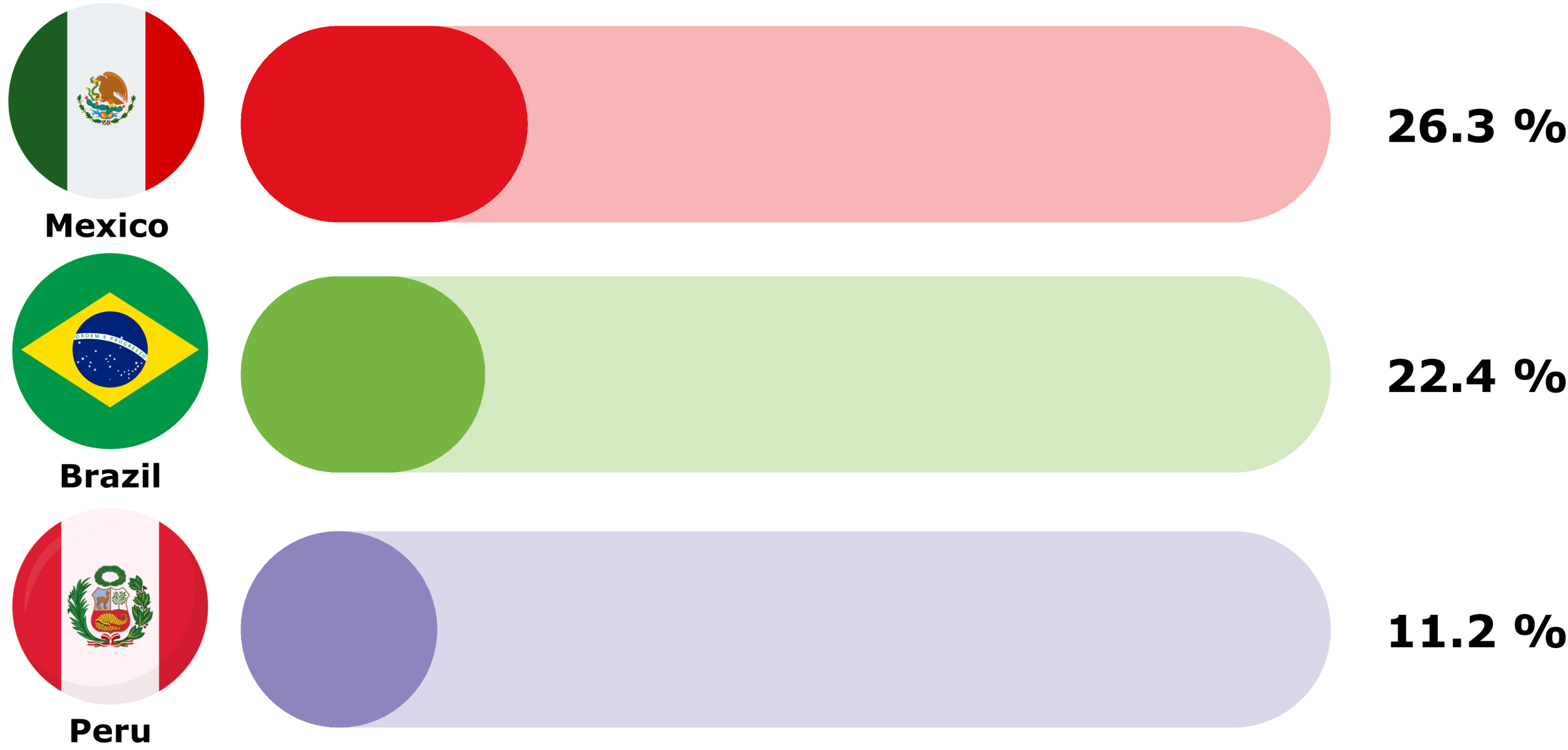
GBH: gamma-hydroxybutyrate; LSD: Lysergic acid diethylamide

Table 1. *Factors associated with SSU among SGM from Brazil, Mexico, and Peru*

	OR (C.I. 95%) (n= 13,470)	aOR (C.I. 95%) (n= 11,701)
Country (ref. Brazil)		
Mexicco	1.24 (1.13, 1.35)***	1.45 (1.28, 1.64)***
Peru	0.44 (0.37, 0.53)***	0.54 (0.43, 0.68)***
Age (≤30 vs. >30)	1.10 (1.02 ,1.20)*	1.12 (1.01, 1.24)*
Gender (ref. cisgender men)		
Trans woman	0.92 (0.58, 1.45)	0.86 (0.49, 1.53)
Non-binary	1.40 (1.13, 1.73)**	1.44 (1.10, 1.87)**
Family monthly income (ref. none)		
Low	1.07 (0.87, 1.33)	1.05 (0.82, 1.36)
Medium	1.29 (1.05, 1.60)*	1.32 (1.02, 1.70)*
High	1.63 (1.30, 2.04)***	1.73 (1.29, 2.31)***
Number of sexual partners (ref. 1–5)		
6–10	1.98 (1.77, 2.21)***	1.57 (1.38, 1.79)***
>10	3.06 (2.78, 3.36)***	1.83 (1.62, 2.08)***
Use of GSN apps (ref. never)		
Monthly	1.56 (1.31, 1.87)***	1.31 (1.07, 1.62)***
Weekly	1.84 (1.58, 2.14)***	1.25 (1.04, 1.50)***
Daily	2.04 (1.74, 2.39)***	1.48 (1.22, 1.80)***
PrEP use (ref. never)		
Past use	1.89 (1.55, 2.29)***	1.55 (1.23, 1.96)***
Current use	2.03 (1.80, 2.30)***	1.43 (1.22, 1.66)***
Perceived risk for HIV acquisition (ref. none)+		
Low	1.73 (1.41, 2.13)***	1.33 (1.04, 1.69)*
Middle	3.11 (2.52, 3.84)***	1.58 (1.22, 2.03)***
High	4.36 (3.46, 5.49)***	1.68 (1.26, 2.23)***
Transactional sex (yes vs. no)°	2.21 (1.96, 2.50)***	1.37 (1.18, 1.59)***
CRAS (yes vs. no)°	2.25 (2.06, 2.45)***	1.53 (1.37, 1.69)***
CIAS (yes vs. no)°	2.03 (1.85, 2.21)***	1.35 (1.21, 1.50)***
Sex under alcohol (yes vs. no)°	5.56 (5.09, 6.08)***	4.47 (4.05, 4.94)***
Mental health well-being (score)	0.97 (0.96, 0.98)***	0.97 (0.96, 0.98)***
Depression (yes vs. no)	1.18 (1.07, 1.30)***	1.02 (0.89, 1.16)

+Participants who were currently or past PrEP users were excluded (n= 1605); ° In the last 6 months
GNS: geosocial networking; CRAS: Condomless receptive anal sex; CIAS: Condomless insertive anal sex; STI: Sexually transmitted infections; *p≤ 0.05; **p≤ 0.01; ***p≤ 0.001

CONCLUSIONS

The proportion of SGM with SSU in Latin America is high, with high exposure to HIV and low PrEP use. Comprehensive HIV prevention services should include mental health care, substance use, and harm reduction counseling, especially for SGM over 30 years old with middle or high income and for those who report sex under alcohol use. Additionally, encouraging strategies for mental health well-being seems to be a good protector to avoid SSU.

REFERENCES

- Guerra FM, Salway TJ, Beckett R, Friedman L, Buchan SA. Review of sexualized drug use associated with sexually transmitted and blood-borne infections in gay, bisexual and other men who have sex with men. Drug Alcohol Depend. 2020 Nov 1;216:108237.
- Jaspal R. Chemsex, Identity and Sexual Health among Gay and Bisexual Men. Int J Environ Res Public Health. 2022 Sep 25;19(19):12124.
- Lisboa C, Stuardo V, Folch C. Sexualized drug use among gay men and other men who have sex with men in Latin America: A description of the phenomenon based on the results of LAMIS-2018. PLoS One. 2023 Oct 19;18(10):e0287683.

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