

The association of the use of chem-sex, adherence of antiretroviral therapy and lost-to-follow-up among people with HIV

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ABSTRACT

Introduction: Chem-sex, defined as the use of substances to enhance sexual activities, has emerged as a growing concern in HIV treatment owing to its potential effects on adherence to antiretroviral medication (ART). Engaging in chem-sex can lead to poor ART adherence and increase the risk of lost-to-follow-up (LTFU), both of which are critical for sustaining viral suppression. This study aims to determine the association between chem-sex and its impact on ART adherence, as well as the risk of LTFU among people living with HIV (PLHIV). **Materials and Methods:** A multicentre, retrospective cohort study was conducted at Hospital Sungai Buloh, Selangor and Hospital Tuanku Ja'afar Seremban, Negeri Sembilan. Data were collected from patients' medical records from 2010 to 2023. Bivariable logistic regression was employed to assess the association between the use of chem-sex and its effects on ART adherence and LTFU. Multivariable logistic regression to identify factors associated with the use of chem-sex in PLHIV. **Results:** Of the 355 PLHIV patients recruited, 54 (15.20%) were involved in chem-sex. 159 (44.80%) PLHIV were non-adherence to ART medications. 69 (19.40%) PLHIV had a history of LTFU. The most common drug used in chem-sex was methamphetamine (n = 35, 64.81%), followed by ketamine (n = 17, 31.48%). The use of chem-sex was significantly associated with ART non-adherence (OR = 1.99, p = 0.02) and increased risk of LTFU (OR = 3.03, p = <0.001). The factors associated with the use of chem-sex in PLHIV were smoking, sexually transmitted infections and history of missed appointments. **Conclusion:** The involvement in chem-sex significantly compromised adherence to ART and contributed to a loss of follow-up in HIV care. This is a critical and alarming HIV issue that demands attention and intervention. Healthcare professionals should deliver awareness and health education when providing HIV care.