

## Abstract

Substance use disorder (SUD) is a medical condition wherein the use of one or more substances leads to a clinically significant impairment in an individual. The psychoactive nature of alcohol, nicotine, illicit substances, and some prescriptions medicines, can result in accidents and injuries due to a substance abuser's inability to exercise control of his/her mental state. The high prevalence of substance-related injuries, which is estimated to be half of South African emergency department (ED) cases, gives us an opportunity to investigate substance misuse with the use of a substance use screening interview.

**Aim:** To investigate the prevalence and sociodemographic risk factors of substance use in patients presenting to the emergency department of Charlotte Maxeke Johannesburg Academic Hospital (CMJAH).

**Method:** This cross-sectional study made use of a screening tool that included a sociodemographic information sheet as well as the World Health Organization (WHO) Alcohol, Smoking and Substance Involvement Screening Tool (ASSIST). In this study, a total of 237 ED patients were interviewed between the 2<sup>nd</sup> of September and the 1<sup>st</sup> of December 2019. The study was ethically approved by the Human Research Ethics Committee (HREC) (Appendix A).

**Results:** For participants that ever used a substance in their lifetime (lifetime use), alcohol use had a prevalence of 66,2% among study participants. This was followed by tobacco (46,8%), cannabis (33,8%), opioids (13,1%), cocaine and sedatives (9,3% each), amphetamine type stimulants (ATS) (7,6%), hallucinogens (4,2%), and inhalants (3,8%). For patients that used a substance within three months of being interviewed (past 3-month use), prevalence of use in alcoholic beverages was 40,1%, with the prevalence of use in tobacco product at 32,1%; cannabis at 16,9%; opioid at 4,6%, ATS at 2,1%; sedatives at 2,1%; cocaine at 0,8%; and lastly hallucinogens and inhalants with a 0,0% prevalence of use among interviewed patients. Multivariable logistic regression showed that tobacco, alcohol and cannabis use were predominantly associated among male patients and participants of younger age for both lifetime and past 3-month substance use. Assessments on the health and social risk involved with the use of substances found that 54,9% of the study sample was classified as low risk, 27,4% as medium risk, and 17,7% classified as high risk.

**Conclusion:** Alcohol remains the most used substance in South Africa, with cannabis being the most prevalent illicit drug. Efforts to reduce substance use and prevent SUD are integral to reducing the occurrence of substance-related cases in the ED.

