99. History of Overdose and Psychiatric Comorbidities among Medical Toxicology Consultations in the ToxIC Core Registry, 2021-2022

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Background: Non-fatal overdoses are one of the strongest predictors of subsequent overdose and represent an optimal prevention point. Psychiatric comorbidities may complicate recovery for individuals after an overdose. Our objective was to identify the prevalence of prior overdose history among patients receiving a medical toxicology consultation for intentional exposure and/or opioid withdrawal, and to compare the prevalence of psychiatric disorders, demographics, and substance exposures between those with and those without prior overdose history.

Methods: The Toxicology Investigators Consortium (ToxIC) Core Registry includes data from medical toxicology consultations on poisonings, including drug overdoses. In 2021, history of overdose and psychiatric comorbidities were added. This secondary analysis includes cases from 2021 to 2022 involving intentional exposure and/or acute opioid withdrawal as the reason for a medical toxicology consultation. Additionally, only cases with known medical history and history of prior overdose were included. Bivariate statistical tests were utilized to determine differences in demographic correlates, psychiatric disorders, and primary agent of exposure between patients with a history of overdose and without a history of overdose (Chi-square and Fisher's Exact tests for categorical variables and Mann Whitney U tests for continuous variables). All analyses were conducted in R v4.2.1.

Results: Among the 8,922 total cases which were classified as intentional and/or opioid withdrawal, 1,900 patients had a history of prior overdose, 4,063 patients had no history of prior overdose, and 1,686 had an unknown history of prior overdose. Additionally, 1,273 cases did not have known medical histories. Therefore, all unknown overdose/medical histories (n . 2,959) cases were excluded from this analysis. The total sample included 5,963 patients with 31.9% (n . 1,900) having a prior history of overdose. Those with prior overdose history were more likely to be older compared to those without an overdose history (median age .25 vs. 19, respectively, P < 0.001). Moreover, the prevalence of transgender individuals was substantially higher in the prior overdose group compared to the no prior overdose group (3.4 vs. 1.9%, P.0.002). Among those with a history of overdose, 77.0% were classified as having a diagnosed psychiatric disorder compared to 51.9% of the no prior overdose history group (P < 0.001). The group with a prior overdose history also had a higher prevalence of specific psychiatric disorders, including anxiety, bipolar disorder, depression, PTSD, and schizophrenia. The prior overdose group had a higher prevalence of current exposures for alcohol (ethanol), sympathomimetics, and opioids. However, there was no difference in prior overdose history regarding cardiovascular agents.

Conclusion: The majority of individuals presenting with prior overdose history also had previously diagnosed psychiatric disorders. Those with prior overdose history had a high prevalence of presenting with alcohol, sympathomimetic, and opioid exposures. Targeted approaches that are culturally and psychologically appropriate for individuals with psychiatric disorders may mitigate future overdose risk. Additionally, proper linkages to care for individuals with psychiatric disorders are critical after presenting with an overdose.