low-middle class, 51.6% from middle class, and 11.2% from upper-middle class.

Substance dependence was identified in 29.2% of the participants: alcohol (20.3%), MDMA (11.1%), cocaine (10.3%), psychopharmaceuticals (4.8%), and hallucinogenic mushrooms (4.0%). No significant differences were found in SDS scale scores for determining dependence thresholds for any substances except for cannabis (Males = 6.13 vs. Females = 1.80, t = 3.886, df = 83, p < .001). A total of 55.6% of males showed substance dependence compared to 25.7% of females ( $X^2$  = 6.853, df = 1, p = .009).

**Conclusions:** This study highlights a concerning prevalence of drug use and substance dependence among university students majoring in Social Education at the university, with certain genderbased consumption pattern differences. These findings emphasize the urgency of intervention approaches targeting mental health and substance prevention in this specific population.

Disclosure of Interest: None Declared

## **EPP0277**

## Unmasking the Dual Threat of Fentanyl and Xylazine Abuse in America

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**Introduction:** The United States of America are currently facing a public health crisis characterized by the abuse of synthetic opioids, notably Fentanyl, and the veterinary sedative Xylazine. While each of these substances has been associated with significant risks, their current misuse presents a formidable challenge to healthcare professionals, law enforcement agencies and policymakers. While the opioid epidemic has long held the nation in its grip, the emergence of Xylazine as complementary agent in substance abuse has added a disturbing layer of complexity to an already terrible situation, due to its cost-cutting, an increase in its addictive properties and its ability to extend the duration of the opioid with which it is combined.

**Objectives:** The authors intend to review the relevant and current literature in order to extend the knowledge about this condition and find the best conducts for clinical practice.

Methods: Non-systematic literature review

**Results:** Various regions of the United States are facing a troubling surge in the co-abuse of Fentanyl, a potent synthetic opioid many times more potent than morphine, and Xylazine, a veterinary sedative and muscle relaxant, particularly in urban areas. The motivations for this combination appear to vary, ranging from the enhanced euphoria to cost-saving measures, further fueling its prevalence. However, the consequences are devastating. Both substances depress the central nervous system, with a sharp increase in overdose deaths and emergency medical services are strained to their limits in responding to these crises. Law enforcement agencies are facing a daunting task in curtailing the distribution of these substances, often grappling with clandestine networks that exploit the accessibility of these drugs.

**Conclusions:** The concurrent abuse of Fentanyl and Xylazine represents a critical public health challenge in the United States of America, demanding immediate attention and a multidisciplinary response. Failure to address this issue comprehensively will have profound implications for the well-being of individuals, families and communities across the nation. It is imperative to mobilize resources, foster interdisciplinary collaboration and develop evidence-based policies to combat this dual-threat crisis. Novel intervention strategies, including community education programs, targeted outreach efforts, and supervised consumption facilities, are urgently needed to address this complex issue.

Disclosure of Interest: None Declared

## **EPP0278**

## An LC-MS/MS method for the determination of W18 in urine samples

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**Introduction:** Synthetic drugs pose one of the most significant drug problems worldwide. In this category, W18 emerges as a potent drug of abuse chemically related to fentanyl. W18 has an analgesic potency 10,000 times greater than morphine. Recent in-vitro studies reported no activity of W18 towards opioid receptors. However, its presence in seized drug samples indicates its use as a precursor in fentanyl synthesis. This emphasizes the need to develop methods for its detection in developing countries dealing with emerging new drugs.

**Objectives:** To develop an analytical method for the determination of W18 in urine samples.

**Methods:** Standards with W18 concentrations ranging from 5-500 ng/ml were prepared in negative urine along with deuterated internal standard. The samples were diluted with methanol, centrifuged and the supernatant was subjected to Liquid chromatography-tandem mass spectrometry (LC-MS-MS) with time of flight (QTOF) analysis. For chromatographic separation, a C18 column with 50 degrees oven temperature was used. The mobile phase consists of formic acid, water, and acetonitrile. The TOF MS was operated in positive ion mode and multiple reaction monitoring was used for quantification.

**Results:** The retention time of W18 was obtained at 9.57 minutes. The parent ion with molecular weight 422.1 along with precursor ions Q1-273, Q2-111.0, Q3-150.0 g/mol were measured. The area of the standards ranges from 1 to 9.0 log 5 with R square of 0.99. The limit of detection (LOD) and quantitation were 5 and 20 ng/ml respectively. The recovery of W18 was estimated to be 96% from the from spiked urine standards.