

## EPP0839

## Epidemiological patterns of new psychoactive substances use in Tunisian school adolescents, 2021

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**Introduction:** The emergence of New Psycho-active Substances (NPS) such as Synthetic cannabinoid and cathinone, represents a challenging issue for drug policy globally. In order to set up new adjusted measures to limit this phenomenon extension, objective epidemiologic indicators are requested.

**Objectives:** We aimed to determine the prevalence of Synthetic cannabinoid and cathinone consumption in Tunisian adolescents by gender and regional distribution.

**Methods:** Data from the Mediterranean school survey on alcohol and other drugs (MedSPAD III-2021) were used. Based on three-stage stratification sampling method, high school teenagers in first and second grades of secondary education, were enrolled. Data collection was performed using a self-administered standardized questionnaire. We examined weighted prevalence estimates of NPS use at least once in a lifetime (Synthetic cannabinoid and cathinone) by gender and regional distribution. Epi data software was used for data entry and all statistical analysis were performed with STATA software.

**Results:** The survey included 6201 adolescents with a mean age of 16.8 years and a sex ratio female/male of 1.5. Synthetic cannabinoid's use was reported by 1.9%, 95% CI [1.57-2.39] of students, with statistically significant difference between boys (4.1%) and girls (0.6%),  $p$ -value $<10^{-4}$ . This consumption was the highest in Tunis the capital city, the center-east and the north-east (2.7%, 2.2% and 2% respectively). As for synthetic cathinone's use, it was reported by 0.36% 95%CI [0.24-0.56] of our study sample, with statistically significant difference between boys (0.8%) and girls (0.8%),  $p$ -value $<10^{-4}$ .

**Conclusions:** Our study highlighted an emerging use of NPS among high school students with significant male predominance. Further research on NPS epidemiology is, hence, needed to reinforce evidence-based management strategies aiming at fighting this phenomenon. Sensitization of decision makers to control accessibility, and increasing awareness among adolescents' close family / school-staff environment regarding this issue, are strongly recommended.

**Disclosure of Interest:** None Declared

## EPP0840

## Long-term exposure to air pollution and traffic noise and incidence of mental disorders: a large administrative cohort of adults

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**Introduction:** Air pollution is related to a global increase in mortality and morbidity. The literature on the adverse effects on mental disorders is still limited.

**Objectives:** This study aims to investigate the associations between air pollutants and traffic noise with incidence of different categories of mental disorders and drug prescriptions in a large cohort administrative cohort.

**Methods:** We enrolled 1,739,277 individuals 30+ years living in Rome at 2011 census, and followed them up until 31<sup>st</sup> December 2019. We excluded subjects with prevalent mental disorders at baseline to evaluate the incidence of schizophrenia, bipolar, anxiety, personality and substance use disorders, as well as prescriptions of antipsychotics, antidepressants and anticonvulsants. We assigned annual average concentrations of fine particulate matter (PM<sub>2.5</sub>), nitrogen dioxide (NO<sub>2</sub>), Black Carbon (BC), ultrafine particles (UFPs) and noise exposure to baseline residential addresses. We applied Cox regression models with adjustment for individual and area-level covariates.

**Results:** This study identified variable numbers of incident cases, from 1,280 cases for personality disorders to 200,549 for antidepressants. Each interquartile range increase in PM<sub>2.5</sub> (1.13µg/m<sup>3</sup>) was associated with a hazard ratio (HR) of 1.07 (95% confidence interval: 1.017, 1.127) for schizophrenia spectrum disorder, 1.135 (1.086, 1.186) for depression, 1.097 (1.030, 1.168) for anxiety disorders and 1.112 (1.030-1.200) for substance use disorders. Positive associations were also detected for the other exposures and with the three categories of drug prescriptions. In two-exposure models, PM<sub>2.5</sub>, UFPs and noise remained associated with schizophrenia spectrum disorders, depression and antidepressant drugs use. The effects were higher in the age group 30-64 than in the 65+.

Sensitivity analyses generally yielded similar results

**Conclusions:** Long-term exposure to air pollutants and noise was associated with increased risks of schizophrenia spectrum disorders, depression and anxiety disorders. The associations with prescriptions of specific drugs increase the credibility of the results.

**Disclosure of Interest:** None Declared

## EPP0841

## 1-year above-recommendation screen use and internalizing and externalizing behaviours in French children aged 3 to 14 years

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**Introduction:** The context of the COVID-19 pandemic has changed the daily life of families and children. Screen exposure was increased during this period to maintain social relationships, work remotely, and occupy leisure time.