

**Article: 0321**

**Topic: EPO03 - e-Poster Oral 03: Oncology and Psychiatry, Pain and treatment options, Women, Gender and Mental Health, Education, Promotion of Mental Health, Ethics and Psychiatry**

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**Neuroenhancers Use Amongst Italian Medical Students. a Survey.**

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**Introduction.**

Increasing use of substances by university students to improve cognitive performance ('neuroenhancement') has been reported. This refers not only to over-the-counter supplements, energy drinks, coffee and tobacco, but also to psychostimulants and modafinil. Little is known about this phenomenon in Italy.

**Aims.**

To explore prevalence of use of substances as cognitive enhancers by Italian medical students and their attitudes towards prescription-only medication (methylphenidate, amphetamine, atomoxetine, modafinil) used for this purpose.

**Methods**

An ad hoc questionnaire was distributed to 433 medical students of the University of Modena and Reggio Emilia. Valid response rate was 83.8% (N=363).

**Results**

271 students (74.7%) reported use of substances to improve cognition in the last 30 days. Coffee (73%, N=265) and tea (33.3%, N=121) were the most used, followed by caffeinated sodas (15.7%, N=57), tobacco (10.2%, N=37) and vitamin B supplements (8.8%, N=32). Prescription-only medicines were used by 2 students (0.6%) and, overall, only 4 students reported lifetime use (1.2%). 295 (83.3% ) students mentioned concerns about safety and side effects as main reasons not to use. Use of cognitive enhancers as a group in the last 30 days slightly correlated with alcohol ( $r = 0.124$ ;  $p = 0.023$ ) and cannabis use ( $r = 0.114$ ;  $p = 0.036$ ).

**Conclusions**

Italian medical students use many substances as cognitive enhancers, but this seems not to apply to psychostimulants and modafinil. Cultural and regulatory differences may underlie this difference with other Countries, which warrants further research.