Pharmacological cognitive enhancement among non-ADHD individuals-A cross-sectional study in 15 countries

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Abstract

BACKGROUND:
Psychoactive substance use aiming at increased performance at work or while studying, usually referred to as pharmacological cognitive enhancement (PCE), has been extensively researched in recent years. While large scale national studies have tried to assess the prevalence of PCE among the general population, cross-cultural comparisons have been hampered by the different definitions and designs included. In addition, the non-medical use of prescription drugs indicated to treat the symptoms of the Attention Deficit Hyperactivity Disorder (ADHD) has been the focus of discussion, yet no study has addressed the association between ADHD rates, prescribing behaviour and PCE yet.

METHODS:
The Global Drug Survey is an annually conducted anonymous web survey on substance use. Two data sets from male and female Global Drug Survey (GDS) participants aged 16 to 65 years with no previous ADHD diagnosis were analysed to assess 12-month PCE in 15 countries. GDS2015 (n = 79,640) examined the patterns of and motives for stimulant PCE, while GDS2017 (n = 29,758) focused on both the use of stimulant and sedative drugs for PCE.

RESULTS: When comparing the study samples 2015 and 2017, PCE with prescription and illegal stimulants and modafinil increased across all countries. People who used stimulant drugs and modafinil for PCE rated the perceived effect on cognitive performance most beneficial, while alcohol was the substance with the most adverse effect.

CONCLUSION:
The analysis of data on stimulant use for PCE in the largest global sample highlights relatively low-risk PCE use patterns except for participants with illegal stimulant use for PCE. The globalisation of ADHD, physicians’ prescribing behaviour and changes in drug policy are likely to influence the country-specific rate of PCE among non-ADHD individuals what calls for further investigation.