

POSTER PRESENTATION

TOPIC: Prevention and Risk Reduction in Addiction (Prévention et Réduction des Risques en addictologie)

Title: Profiling and Assessing the Risks of Image and Performance Enhancing Drugs: a Cross-Cultural Perspective

Ilaria De Luca¹, Francesco Di Carlo², Julius Burkauskas³, Artemisa R. Does^{4,5}, M. Ángeles Gómez-Martínez⁶, Attila Szabo^{7,8}, Hironobu Fujiwara^{9,10,11}, Cristina Monteiro¹², Marco Di Nicola¹³, Marianna Mazza¹³, Gabriele Sani¹³, Mauro Pettorruso², Ilaria Cataldo¹⁴, Gianluca Esposito¹⁴, Giovanni Martinotti^{1,2}, and Ornella Corazza^{1,14}

¹Department of Clinical, Pharmaceutical and Biological Sciences, School of Life and Medical Sciences, University of Hertfordshire, Hatfield, United Kingdom

²Department of Neuroscience, Imaging, and Clinical Science “G. d’Annunzio” University of Chieti-Pescara, Chieti, Italy

³Laboratory of Behavioural Medicine, Neuroscience Institute, Lithuanian University of Health Sciences, Kaunas, Lithuania

⁴Laboratory of Neuropsychophysiology, Faculty of Psychology and Education Sciences, University of Porto, Porto, Portugal

⁵School of Health, Polytechnic of Porto, Porto, Portugal

⁶Department of Psychology, Pontifical University of Salamanca, Salamanca, Spain

⁷Institute of Health Promotion and Sport Sciences, ELTE Eötvös Loránd University, Budapest, Hungary

⁸Institute of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary ⁹

⁹Department of Neuropsychiatry, Graduate School of Medicine, University of Kyoto, Kyoto, Japan

¹⁰Decentralized Big Data Team, RIKEN Center for Advanced Intelligence Project, Tokyo, Japan

¹¹The General Research Division, Osaka University Research Center on Ethical, Legal and Social Issues, Osaka, Japan

¹²Department of Psychometrics, Institute of Psychology, Federal University of Rio de Janeiro, Rio de Janeiro,

Brazil

¹³Institute of Psychiatry and Psychology, Department of Geriatrics, Neuroscience and Orthopedics, Fondazione Policlinico Universitario A. Gemelli IRCCS, Università Cattolica del Sacro Cuore, Rome, Italy

¹⁴Department of Psychology and Cognitive Science, University of Trento, Trento, Italy

Corresponding author: Ilaria De Luca MD, Department of Clinical, Pharmaceutical and Biological Sciences, School of Life and Medical Sciences, University of Hertfordshire, Hatfield, United Kingdom

i.de-luca2@herts.ac.uk

Abstract

Background: Image and performance-enhancing drugs (IPEDs), or lifestyle drugs, are a wide range of products presented as having the potential to improve mental and physical function and health. The present study aimed to profile IPEDs use, especially during the COVID-19 lockdown, a period characterized by physical distancing, isolation, gym closures, and other altered lifestyle habits.

Methods: A cross-sectional observational study investigating the type of IPEDs consumed and purchasing methods was disseminated via a web-based questionnaire in eight countries (United Kingdom, Italy, Lithuania, Hungary, Portugal, Spain, Brazil, and Japan) between April and May 2020. This included the Exercise Addiction Inventory (EAI), the Appearance Anxiety Inventory (AAI), and the Self-Compassion Scale (SCS).

Results: A total of 736 IPEDs users were included in the survey. The mean age of the sample was 33.05 years ($SD = 10.06$), with females' rate of 64.2%. Among IPEDs users, 6.8% were at risk of exercise addiction ($EAI > 24$), 27.6% presented high levels of appearance anxiety and 24.9% revealed low levels of self-compassion and emotional self-regulation. Most participants (55.6%) purchased IPEDs through pharmacies/specialised shops, while 41.3% purchased IPEDs on the Internet. Online

shoppers of IPEDs were mainly men who reported higher scores on the Exercise Addiction Inventory. One or more IPEDs classifiable as “potentially at-risk” were used by 66.3% of the sample. Users of “potentially at-risk IPEDs” were younger and mostly males. They showed higher scores both at Exercise Addiction Inventory and Appearance Anxiety Inventory.

Discussion: This study profiled users of IPEDs during a period of strict social restrictions. Both purchasing methods and types of IPEDs used were associated with distinct socio-demographic factors and psychopathological traits. Relevant cross-cultural differences also emerged. Longitudinal research will be necessary to better understand the long-term impact of social restrictions on IPED consumption.

Conflict of interest: The authors declare that there are no conflicts of interest with respect to the research, authorship, and/or publication of this work.