

## EW0291

**FKBP5 modulates the effects of nicotine on hpa axis activity in females**

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**Background** FK506 binding protein 51 is a modulator of the hypothalamic-pituitary-adrenal axis activity. Its function is modulated by the single nucleotide polymorphism rs 1360780. Females often use smoking to cope with stress. The aim of this study was to investigate if the influence of nicotine consumption on cortisol plasma levels is modified by the polymorphism of rs 1360780 in females.

**Methods** Two hundred and ninety-six female smokers were genotyped for the SNP rs1360780 of FKBP5 protein. Cortisol plasma concentrations were measured in blood plasma drawn three hours after smoking. Severity of tobacco addiction was assessed based on the Fagerström Test for Nicotine Dependence (FTND).

**Results** Thirty-six participants were TT-homozygotes and 260 were C allele carriers. In TT homozygotes, we found a significant negative correlation between the FTND sum score and the cortisol plasma concentrations. In a linear regression analysis, the FTND sum score accounts for 12.4% of the variance of cortisol plasma levels. By contrast, we could not find such an association in C allele carriers.

**Conclusions** Our results suggest that nicotine is an important confounder in the modulation of HPA axis activity by FKBP5. In the light of these findings, future studies on FKBP5 should include nicotine consumption as a confounder.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## EW0292

**Influence of impulsivity during decision-making in regular cannabis users**V. Laprevote<sup>1,\*</sup>, A.L. Devin<sup>2</sup>, B. Blanc<sup>3</sup>, R. Schwan<sup>1</sup><sup>1</sup> *Psychiatric University Clinic of Grand Nancy, CPN Nancy, Laxou, France*<sup>2</sup> *Université de Lorraine, EPSaM- EA4360 APEMAC, Metz, France*<sup>3</sup> *Addiction Medicine Department, CH Jury, Metz, France*

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**Introduction** Regular cannabis use is associated with cognitive impairments, including impaired decision making measured by the Iowa Gambling Task. The question remains whether the impulsivity measured in regular cannabis users may participate to impaired decision making. Interestingly, the Cambridge Gambling Task (CGT) is a computerized gambling task allows to differentiate risk taking and impulsivity when making a decision.

**Aims** This study aims at separately exploring the impact of regular cannabis use on risk taking and impulsivity during decision making process.

**Objectives** To do so, we compared the performance of regular cannabis users and healthy controls during the CGT.

**Methods** Forty-three regular cannabis users (>7 units/week) with a cannabis use disorder (CUD), 8 non-CUD regular cannabis users and 30 healthy controls were recruited. Decision-making was assessed using the CGT. The following outcomes were considered: Delay aversion score, Overall proportion bet, quality of decision making, risk taking and risk adjustment.

**Results** The analysis on delay aversion score showed a group effect ( $F=3.839$ ,  $P=0.026$ ) but no effect on other CGT variables. This effect was explained by the fact that cannabis CUD users had

a higher delay aversion score than healthy controls and non-CUD cannabis users.

**Conclusions** In this study, CUD cannabis users had an increased impulsivity but no increase of risk taking and quality of decision-making. Future work should include the CGT with a clinical scale to evaluate impulsivity and a motor inhibition task to understand if the impairment observed relates to cognitive or motor abilities.

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## EW0293

**Psychosocial functioning in injured and non-injured athletes with symptoms of exercise addiction**M. Lichtenstein<sup>1,\*</sup>, R.Ø. Nielsen<sup>2</sup>, C. Gudex<sup>3</sup>, A.B. Bojesen<sup>4</sup>, C.J. Hinze<sup>5</sup>, U. Jørgensen<sup>6</sup><sup>1</sup> *Department of Psychology, University of Southern Denmark, Odense, Denmark*<sup>2</sup> *Sport Science, Aarhus University, Department of Public Health, Aarhus, Denmark*<sup>3</sup> *University of Southern Denmark, Department of Clinical Research, Odense, Denmark*<sup>4</sup> *Mental Health Services, Region of Southern Denmark, Odense, Denmark*<sup>5</sup> *Research Unit for Telepsychiatry and E-mental Health, Odense, Denmark*<sup>6</sup> *Orthopaedic Research Unit, Odense University Hospital, Odense, Denmark*

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**Introduction** Exercise addiction is characterized by compulsive and excessive exercise patterns that eventually can lead to musculoskeletal injury. While exercise leads to increased self-esteem and is a useful tool for emotional regulation, the level of psychosocial distress may be negatively affected by such injuries.

**Objectives** The prevalence proportions of post-injury depression and emotional stress in athletes with exercise addiction have not previously been explored and compared to non-addicted athletes.

**Aims** We wanted to test the hypothesis that athletes with addiction profiles react to injury with higher levels of emotional and social distress compared to athletes without addiction.

**Methods** A cross-sectional survey was employed and a total of 1167 athletes (673 with diagnosed musculoskeletal injuries and 494 without present injury) responded to the following questionnaires: The Exercise Addiction Inventory, The Major Depression Inventory, The Perceived Stress Scale and EQ-5D to assess quality of life.

**Results** We found that 26% of the injured athletes with exercise addiction had symptoms of major depression and 53% reported emotional distress. These proportions were significantly greater compared with the injured non-addicted athletes where 11% had symptoms of major depression and 28% reported stress. Quality of life was also significantly reduced in the addiction group.

**Conclusions** Injured athletes with exercise addiction report more post-injury psychosocial distress compared with injured non-addicted exercisers. Future trials need to investigate the effect of emotional assessment and support as a complement intervention to somatic injury treatment. Injured athletes should be examined for exercise addiction as they are at risk of depression.

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