Methods We compared 515 male pathological gamblers from inpatient treatment units with 269 matched controls. Patients were diagnosed by experienced clinicians. In a random sample of 58 patients clinical diagnoses were validated through SKID 1 interviews [1].

Results 88% had a comorbid diagnosis of substance dependence (nicotine dependence 80%, alcohol dependence 28%). Only 1% of the gamblers had an impulse control disorder diagnosis. Compared with controls first degree relatives were more likely to suffer from alcohol dependence (27.0% vs. 7.4%), PG (8.3% vs. 0.7%) and suicide attempts (2.7% vs. 0.4%).

Conclusions In addition to recent papers on the neurobiology (Fauth-Bühler et al., 2016) and genetics of gambling [2,3], our findings support the classification of PG as behavioural addiction in the ICD-11 [4].

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

Reference

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S061

Neurobiological mechanisms of problem gambling and treatment

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Background and aims In the past decade, neurobiological research on pathological gambling has flourished. Based on neurobiological similarities between pathological gambling and substance use disorders and similarities in genetics, diagnostic criteria, and effective treatments, pathological gambling was the first behavioral addiction to be included in the DSM-5 within the revised category Substance-related and addictive disorders.

In this presentation novel findings from gambling research in our research group focusing on the role of impulsivity, anticipation towards monetary outcomes, and the interaction between stress and cue reactivity will be presented, with a focus on new functional MRI results. An overview will be given on the concepts of impulsivity and compulsivity in pathological gambling and relevant neurocognitive and neuroimaging findings. Implications of neurobiological research for novel intervention research, such as in neuromodulation studies and personalized medicine will be highlighted.

Keywords pathological gambling; gambling disorder; impulsivity; compulsivity; neuroimaging; craving

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

S062

Internet addiction and the virtual self-image

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Background Internet gaming disorder appears to be associated with self-concept deficits and increased identification with one's avatar. For increased social network use, the few existing studies suggest striatal-related positive social feedback as an underlying factor. Furthermore, few study findings indicate that internet addicts generally have problems in emotional inhibitory control processing.

Methods Pathological and addicted internet gamers as well as social network users were compared with healthy controls regarding psychometric and neurobiological measures of self-concept-related characteristics, avatar identification and emotional inhibitory control processing.

Results and conclusion Psychometric results indicated that both subgroups showed higher self-concept deficits compared to healthy controls. Neurobiologically, different brain activation patterns were observed in the subgroups during self-knowledge retrieval and inhibition of emotional stimuli. Furthermore, addicted internet gamers showed a higher identification with the own avatar, mirrored in an increased left angular gyrus activation, a region functionally associated with identification processing and feelings of empathy.

These findings provide a starting point for the deduction of specific psychotherapeutic treatment approaches for addicted internet gamers and social network users.

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

S063

Mobile phone addiction: Evidence from empirical research

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Introduction Recent technological innovations have led to a proliferation of mobile and smartphones, which have become the cornerstone of modern societies in the 21st Century in terms of communication, notifications and entertainment. Latest research however suggests that with the advantages offered by mobile technologies, smartphone use today may have a significant impact on mental health and well being. Overuse has been associated with stress, anxiety, depression and addiction.

Objectives This talk aims to highlight results of current mobile phone addiction research.

Aims To replicate and extend earlier research with regards to psychopathology (depression, anxiety and stress), mobile phone use and age on problematic mobile phone use and addiction.

Methods Individuals aged 16 and above participated in an online study that contained a pool of validated psychometric measures. Data were analyzed using Structural Equation Modeling.

Results Calls per day, time spent on the phone and using social media significantly predicted prohibited and dependent mobile phone use, whereas stress predicted dependent use only. Anxiety and depression did not significantly predict problematic mobile phone use. Findings also revealed that problematic mobile phone use is prevalent across all ages and both genders.

Conclusions The current results have implications for addiction to using mobile phones, and suggest teachers, parents and affected individuals may benefit from awareness and prevention efforts, respectively.

This talk is based on Kuss, D.J. et al. (2016). Problematic mobile phone use and addiction: The roles of psychopathology, mobile phone use and age. Under review, and was funded by the British Academy and NTU.