P.446 Baclofen for alcohol use disorder: Mechanisms, results and safety

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Introduction: Baclofen is a stereoselective gamma-aminobutyric acid (GABA) receptor agonist which acts specifically on the GABA B receptors. This GABA derivate is used and approved in clinical settings as an antispasmodic. In the last 20 years, baclofen has been studied as a potential treatment for the management of alcohol use disorder (AUD). Some studies show its potential efficacy as a treatment for alcohol withdrawal syndrome, as well as in reducing alcohol craving and intake in alcohol-dependent patients [1]. Besides from Russia and France (since 2014) the use of baclofen for AUD is still considered an "off-label" use of the medication.

Objectives: This study aims to describe the mechanisms behind baclofen's use as a treatment for alcohol use disorder and to ascertaining its efficacy and safety for this purpose.

Methods: Non-systematic review of the literature using Pubmed database and key-words "baclofen", "alcohol", "alcohol use disorder", "withdrawal syndrome", "craving".

Results: The mechanism of action of baclofen in AUD is still poorly understood and some theories have been proposed to explain it. On the one hand, it is known that baclofen has an anxiolytic effect obtained by a rapid normalizing effect on the amygdala's GABA tone, and these anxiolytic properties are believed to reduce craving in AUD patients. On the other hand, chronic baclofen use seems to create an indifference to alcohol in some patients, which is believed to be motivated by long-term plastic remodelling of brain systems closely related to the dopamine network and implicated in the reward system. Moreover, evidence shows that alcohol and baclofen produce many similar symptoms and behavioural effects in patients, which has raised the hypothesis of baclofen as a substitution therapy. Unlike baclofen, alcohol doesn't interact directly with GABA B receptors. However, it is very likely that the two substances indirectly act on the same systems, especially the glutamatergic and GABAergic systems [2]. Randomized controlled trials (RCTs) and comparative studies have shown baclofen's efficacy for AUD, especially in the reduction of alcohol craving and intake, as well as for alcohol withdrawal syndrome [1,3]. Nonetheless, some recent meta-analysis found no effect of baclofen in AUD especially when studies with low risk of bias were considered [4]. With regard to safety issues, the need for the use of high doses of baclofen leads to the risk of serious adverse effects, particularly at neurological and cardiovascular levels. A pharmacoepidemiological study which compared baclofen's off-label use for AUD versus patients treated with approved drugs for AUD found that baclofen treated patients had a higher mortality rate, and that this risk was dose related [5].

Conclusions: In the last years, baclofen was considered a promising treatment for AUD, especially for alcohol craving and abstinence as some studies show. Nonetheless, there is still an important lack of consistent evidence regarding its efficacy, and above all, its safety. Further investigation concerning these questions is fundamental for its approval as an AUD treatment.

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P.447 Correlation between Instagram addiction and the symptoms of depression, anxiety and stress

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Introduction: Despite the fact that the number of individuals that now use Instagram across the world is approximately 800 million monthly and 500 million daily active users [1], very little is known about Instagram addictions (IA) [2]. On the other hand, the previous studies suggested that associations between most behavioral addictions and depressive and anxiety disorders are strong and non-specific [3]. Nevertheless, the number of studies that researched the correlation between IA (as one of the behavioral addictions), and psychiatric disorders is very small.

Aim: Researching the correlation between IA and the symptoms of depression, anxiety and stress.

Methods: The sample consisted of 192 students (65.1% female, mean age 22.12 ± 2.38 years). The following questionnaires were used: sociodemographic questionnaire, a questionnaire that examined Instagram activities, and the intensity and way of using Instagram, and Instagram Addiction Scale (IAS). Higher scores on IAS indicate a greater risk of developing addiction. Also, we used Depression Anxiety Stress Scales-21 (DASS-21). It is a self-report questionnaire consisting of 21 items, 7 items per subscale: depression, anxiety and stress. Lower scores are better.

Results: The average score on the IAS was 28.97 ± 10.45. There were no statistically significant differences according to gender (U = 418, p = 0.99). The most frequent activity of the respondents is viewing the photos of other users. Our participants spend 3.29 ± 2.77 hours on Instagram. About one-third of the photos are processed in one of the available filters. All Instagram activities had a statistically significant positive correlation with the score on IAS. The higher correlation was with the time spent on Instagram (rs = 0.488, p <0.05). Then viewing the photos (rs = 0.369, p <0.05) and videos (rs = 0.298, p <0.05). The total score on the IAS was in a statistically significant correlation with all subscales DASS-21. The strongest correlation is with the subscale of stress (rs = 0.460, p <0.05), then the correlation with the subscale of anxiety (rs = 0.439, p <0.05), and finally with the subscale of depression (rs = 0.376, p <0.05). The score on the anxiety subscale is in a statistically significant positive correlation with a larger number of activities on Instagram, from which the strongest correlation is with watching streams of other users. The score on the depression subscale is in a statistically significant positive correlation only with the activity - watching streams of other users. The score on the stress subscale is in a statistically significant positive correlation with a larger number of activities on Instagram, from which the strongest correlation is with the activity of viewing videos of other users.

Conclusions: Our results indicate a correlation between the symptoms of depression, anxiety and stress and IA. As this is a cross-sectional study, we cannot determine the nature of that correlation for certain. It is possible that IA are a maladaptive way of coping with the primary states of depression or anxiety or that depressive and anxiety disorders occur as a consequence of various problems associated with behavioral addictions.

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P.448 Association of parental substance use disorder with offspring cognition: A population family-based study

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Background: Substance use disorders constitute a global public health problem contributing to substantial morbidity and mortality worldwide. Substance use disorders run in families and have a heritability (i.e., proportion of variance explained by genetic factors) of approximately 30% - 70%. Parental substance use disorder has been associated with lower cognitive ability in offspring, but the nature of this association is not known. The aim of the current study was to investigate if parental substance use disorder is associated with lower cognitive ability in offspring, and whether the association is independent of shared genetic factors.

Methods: A national register-based cohort study of more than 3 million individuals in Sweden. All Swedish citizens have a unique personal identity number which enables linkage between different Swedish national registries. Exposure was parental substance use disorder, operationalized as having a parent with lifetime substance use disorder diagnosis or substance related criminal conviction in the National Patient Register or Crime Register, respectively. Outcomes were cognitive test score at military conscription (n=1 215 690) and final high school grades (n=2 517 030). Linear regression with increased adjustment of covariates was performed in the full population. The covariates adjusted for were offspring sex, offspring birth year, parents birth year, parental educational level, parental immigration status and both parental and offspring psychiatric co-morbidity. In addition, the mechanism of the association was investigated with children-of-sibling analyses using fixed-effects regression with three types of sibling-parents with increasing genetic relatedness (half-siblings, full siblings and monozygotic twins).

Results: Parental substance use disorder was associated with decreased cognitive test stanine (mean=5, standard deviation=2) score at conscription (No parental substance use disorder: mean, 5.16; 95% CI, 5.15 to 5.16; One substance use disorder parent: mean, 4.60; 95% CI, 4.59 to 4.61; Two substance use disorder parents: mean, 4.22; 95% CI, 4.19 to 4.25) and lower z-standardized high school grades (No parental substance use disorder: mean, 0.08; 95% CI, 0.08 to 0.08; One substance use disorder parent: mean, -0.39; 95% CI, -0.39 to -0.39; Two substance use disorder parents: mean, -0.83; 95% CI, -0.84 to -0.81). The associations remained significant after adjustment for covariates. In the children-of-siblings analyses when accounting for genetic relatedness, these negative associations were attenuated, suggestive of shared underlying genetic factors.

Conclusions and Relevance: The findings suggest that there are shared genetic factors between parental substance use disorder and offspring cognitive function, suggesting that cognitive deficits may constitute a genetically transmitted risk factor in substance use disorder. Clinical and genetically informed studies of different substance use disorder populations are needed to further characterize the cognitive profiles transmitted across generations in families with substance use disorder. Cognitive deficits may be intrinsic to the substance use disorder syndrome, which has significant