

Press Release: The CoCA PROUD Study has started

How bright light and physical exercise might help ADHD patients

by Thomas Wagner-Nagy (concentris research management GmbH)

Attention deficit hyperactivity disorder (ADHD) is a mental health condition that rarely occurs alone. More than 80 percent of adult ADHD patients suffer from a comorbid disorder, meaning there is at least one additional disease co-occurring with the primary disease.

In the case of ADHD, two common comorbid conditions are obesity and major depressive disorder. Therefore, the risk for comorbid obesity and major depressive disorder is increased in adolescents and adults with ADHD. Moreover, a disturbed circadian rhythm and altered sleep are key features of ADHD.

Bright light therapy, a so-called chronobiological modification, improves the day-night (circadian) rhythm and is an established therapy for major depression in adolescents and adults. Exercise prevents and reduces obesity in adolescents and adults along with improving depressive symptoms.

While these non-pharmacologic treatments are known to modulate dopaminergic transmission (DA) and circadian rhythm (CIRCA), two key mechanisms regulating mental wellbeing, no study has assessed their effect on ADHD and its comorbidities in an experimental setting yet. PROUD is therefore the first large scale, multicentre study to systematically evaluate the role of DA and CIRCA and scrutinize their potential relevance for developing disease biomarkers and thus obtaining measurable indicators for predicting and treating these ADHD comorbidities.

“The idea here is to employ non-pharmacological methods to improve patients’ lives. There is a well-established drug treatment for ADHD with stimulants – methylphenidate being the most famous one. However, that is only one step and we want to make use of the knowledge that sports on the one hand and bright light therapy on the other hand showed promising initial data to improve patients’ lives with ADHD”, says CoCA project coordinator Andreas Reif, Chair of the Department of Psychiatry, Psychosomatic Medicine and Psychotherapy at the University Hospital Frankfurt in Germany.

“So we put that into a clinical study where we compared treatment as usual with add-on sports therapy or add-on bright light therapy. Over this ten-week trial, we will see whether this affects not only ADHD symptoms but overall health symptoms like depressive symptoms or weight.”

Need a watchdog or motivator? There’s an app for that



Just how do you motivate obese patients to exercise regularly? “It’s very hard to get up and do sports on a daily basis”, says Reif. “We thought about how we can empower our patients to adhere to the study protocol. In order to do that, we have developed a mobile health application, the mHealth App.”

The mHealth App was specifically developed for the PROUD Study with the aim of keeping the patients motivated. “We achieve this by showing them videos of exercise, sending reminders as well as a daily feedback and summary on their achievements”, trial coordinator Jutta Mayer explains.

The study has started with its first participants at the University Hospital of Frankfurt in late March 2017. The CoCA team expects first results and insights by the end of 2017.

Notes for Editors

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