

**שם:** מגלי קוזין פורת

**שם העבודה:**

The relationship of ADHD symptoms and genetic propensity with nutritional status, health behavior and cognitive function in middle- age and old- adults: an observational and interventional study.

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## Abstract

The Attention Deficit Hyperactivity Disorder (ADHD) is a neurobiological disorder characterized by persistent symptoms of inattention, impulsivity and hyperactivity. ADHD is one of the most common neurodevelopmental disorders of childhood and its symptoms persist in adults in up to 65% of cases, making the prevalence of ADHD in adults 2.5%. ADHD is associated with more risk behaviors that contribute to chronic health problems, including substance use, binge eating and obesity, risky sexual behavior and with higher risk of developing dementia.

Despite the high prevalence of ADHD in the general population, fewer than 20% of adults with this disorder are diagnosed or treated.

The purpose of this study is to examine the relationship of ADHD symptoms and ADHD genetic propensity with nutritional status, health behavior and cognitive function in middle- age and old- adults in order to identify population at risk and promote health intervention. We will also assess whether ADHD symptoms in parents of children with diagnosed ADHD are associated with health and life-style factors, and lastly, will assess the efficacy of an intervention to reduce health risk behaviors in these parents. Findings from these observational studies will allow a better understanding of ADHD consequences on nutritional and life-style factors and on brain health during older adulthood, and may promote healthy aging through personalized interventions in ADHD adults.

The study will include three parts: 1. We will examine the relationship of ADHD symptoms and ADHD genetic propensity with nutritional status, health behavior and cognitive function in middle- age and old- adults based on the UK Biobank (a major national health population-based cohort of 500,000 people aged between 40-69 years).

2. We will estimate the prevalence of ADHD symptoms in parents of students with ADHD symptoms in order to assess the multi-generational connection of this disorder, and evaluate the association between ADHD symptoms and dietary and health behavior patterns in these individuals. 3. An interventional study. The intervention group will include parents of students with ADHD who have reported symptoms of ADHD. The intervention will include a series of three sessions in which participants will be given appropriate tools to improve their lifestyle, and will be divided into two

groups. One group will be tailored to the needs of people with ADHD and will focus on providing tools for time organization and planning, in addition to nutritional information. Another group will focus on providing nutritional information only, as is customary in dietary intervention groups. At the end of the sessions, participants will be asked to complete repeat questionnaires to examine the effect on their dietary and health behavior patterns.