

Streszczenie Popularno-Naukowe

Posttraumatic stress disorder (PTSD) develops in some people following an exposure to very stressful events, and is characterized by symptoms such as emotional re-experiencing of traumatic memories and avoidance of reminders of the traumatic event. Women are twice as likely to develop PTSD following trauma than men. PTSD is associated not only with the obvious emotional distress and impairment, but also with poorer physical health. Individuals with PTSD are at higher risk for experiencing obesity and cardiometabolic problems, putting them at further risk of chronic illness and premature death. One of the potential mechanisms linking PTSD and poor physical health is dysregulated eating, including food addiction (FA). FA is associated with higher obesity rates and past studies show high rates of FA among individuals with PTSD, but little is known about the health implications of the overlap between PTSD and FA. Given the risk of further increase in PTSD rates resulting from prolonged stress of the COVID-19 pandemic, it is important to understand the extent to which PTSD, FA, and combined PTSD+FA impact health and body mass. The current study will investigate the relationship between PTSD symptoms, FA and objective markers of health (such as levels of pro-inflammatory C-reactive protein, hypercholesterolemia, blood glucose and insulin) as well as obesity in Polish adults. The current project will utilize low-burden cutting-edge methods, such as eSense for skin conductance and an actigraphy watch for blood pressure, to measure the objective physiological markers of motivational and emotional responses in PTSD and FA. The findings will lay the groundwork for designing psychological interventions designed to improve not only emotional but also physical health outcomes among individuals with PTSD.

The current project is intended to fill the gaps in knowledge on the relationship between trauma, dysregulated eating, and associated health consequences, with three general scientific aims accomplished in the course of two studies. The first aim is to investigate the relationship between trauma severity, FA, and obesity in a large sample, with particular emphasis on sex differences. We expect that FA will be associated with more trauma symptoms and higher body mass index, and that women will have on average more severe PTSD and FA symptoms compared to men. This aim will also allow for an estimate of prevalence of PTSD and FA among Poles in the aftermath of the pandemic. The first aim will be accomplished by recruiting 2000 Polish adults to complete online surveys (Study 1). We will recruit heavily among healthcare workers to capture people at the frontlines of the COVID-19 pandemic. The second aim is to determine whether individuals with combined PTSD and FA have a more severe pro-inflammatory state (measured with CRP) and a less favorable cardiometabolic profile (i.e., higher triglycerides, LDL, fasting glucose, fat body mass, waist-to-hip ratio, and measured body mass index; and lower HDL cholesterol and lean body mass) than those PTSD or FA alone, or those without either. Aim 3 is to identify physiological markers of motivational and emotional processes involved in PTSD and FA. Aims 2 and 3 will be accomplished by inviting eligible participants from Study 1 to undergo a phlebotomy exam at a partnered lab (Aim 2), and to participate in a laboratory visit at UŚ in which they will complete a clinical interview for PTSD and a number of psychological tasks while wearing eSense electrodes for measuring skin conductivity and an actigraphy watch for measuring heart rate.

This study is intended to clarify the role of PTSD symptoms and dysregulated eating in objective physical health. It will use innovative and low-burden technology to identify objective biomarkers of psychological processes. If funded, this project will allow for training of future psychologists (postdoctoral fellow, doctoral students, student research assistants) in a scientist-practitioner model as part of a vertical research team. This project is also designed to foster existing international collaborations by involving the PI's American research collaborators and to build new ones in Europe. Therefore, in addition to answering important questions related to public health, this project is also a stepping stone in a long-term plan to build an interdisciplinary team of Polish and international scientists developing and studying the effectiveness of treatment for PTSD+dysregulated eating, for improvement in psychological symptoms and objective health indices.