

Understanding the process of coping with pain remains a key issue for interdisciplinary research teams in the XXI century. The physiological processes connected with regulating the stress and immune reaction are known to underpin pain responsiveness; these processes, in turn, are determined by numerous other factors, including those psychosocial in nature. Social threats to the self such as sense of exclusion or exposure to negative evaluation are examples of stressors which evoke the strongest hormonal response of an organism. It has been proven many times that an individual's self-esteem is a factor that can modify their functioning in the face of social threats. Individuals with high self-esteem usually cope better. However, the group of people high in self-esteem is very diverse, comprising individuals with both secure and fragile self-esteem. While secure high self-esteem occurs when the implicit and explicit attitudes towards oneself are congruent, fragile high self-esteem is a situation where an individual explicitly declares a high sense of self-worth, yet their implicit self-esteem, which is automated and based on previous early-age experiences, remains low. For fragile self-esteem, it is highly likely to trigger a strong compensatory reaction in the face of threats to the self. Based on research to date, the mentioned compensation can be expected to encompass changes in one's reaction to stress and in terms of pain responsiveness.

The basic aim of the project is to determine the role in experiencing and tolerating pain that is played by implicit and explicit self-esteem, which is an element of the physio-psychological system that regulates an organism's response to stress evoked by social rejection threats. This purpose is vital in times when social rejection threats reach beyond the exclusion of minority groups. Evaluating people from their early age, creating rankings, a lack of acceptance for weakness and exorbitant standards lead to making room for feeling rejected and/or unworthy due to unmet expectations.

Three hundred and sixty healthy volunteers will take part in three studies, including two experimental ones, where it will be possible to examine the physio-psychological reaction to stress connected with being exposed to evaluation as well as examining the changes in reaction to stress and in the level of pain responsiveness in relation with the intensity of the sense of lasting and acute social rejection threat in people with a fragile or secure self-esteem. The project will also allow answering the question whether self-compassion mediates the relationships between self-esteem and the physiological response and perception of pain in the situation of a social threat.