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Physical activity and styles of coping with the stress of people aged 18-30

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Summary
Aim: The aim of the research was to examine and demonstrate whether there are links between physical activity and styles of coping with stress, and to estimate with what force these possible relationships are manifested. **Material and methods**: 60 people aged 18-30 were randomly selected for the study. The first group consists of physically active persons, in which there were 12 women and 18 men, the second group were physically inactive persons with 21 women and 9 men. CISS was used - Questionnaire Coping in Stress Situations as a research method. The study used the Spearman's rank correlation as the basic statistical method. **Results**: Checked how physical activity correlates with a given style of coping with stress. The results of styles coping with stress within two groups of variables were compared. **Conclusions**: The results of the CISS questionnaire showed that physically active people differ from physically inactive people in terms of styles of coping with stress within the style of a focused search for social contacts.

Key words: health psychology, sport psychology, stress, physical activity.

Introduction

Man in everyday life has to deal with stress many times, from the first to the last day of life. The original form of stress was to protect against a situation that caused a threat. A strong physical reaction to a human stimulus helped to stimulate the body to react quickly and usually to escape (Lazarus and Folkman, 1984; Taylor, 2000; Wenedo and Dahn, 2005; Gracz and Sankowski, 2007; Haszen and Sęk, 2007; Blecharz, 2008). During stress, the physiological response is, among others, an increase in the level of adrenaline, norepinephrine, blood sugar, acceleration of the frequency of heart and breath contractions, muscle contraction, increased sweating, enlargement of pupils (Sapolsky, 2010, Tashman et al., 2010). This state of stimulation exhausts the whole body very quickly. Staying in prolonged stress, the body begins to feel a number of physical and psychological consequences such as: weakening of the immune system, weakening of the heart muscle, insomnia, emotional exhaustion, post-traumatic stress disorder (Kabat-Zinn et al., 1992; Sallis and Owen, 1999; Conn et al., 2003; Cewic Erpic et al., 2004; Traustadottir et al., 2005; Bensimhon et al., 2006; Hallal et al., 2006; Hamer et al., 2006; Anshel and Sutarso, 2007; Basiaga-Pasternak, 2007; Landers and Arent, 2007; Terelak, 2008; Guszkowska, 2013). Often people, to relieve stress, reach for various forms of escape. These may include addiction to tobacco, alcohol, psychoactive substances. But also more effective forms of stress relief such as physical activity are noticed (Thatcher and Day, 2008, Wippert and Wippert, 2008, Harwood and Knight, 2009; Maśliński et al., 2015; Piepiora, 2015; Piepiora and Piepiora, 2015; Piepiora and Witkowski, 2018; Piepiora et al., 2015, 2016a, 2016b, 2017a, 2017b, 2017c, 2017d, 2017e, 2018a, 2018b, 2019a, 2019b, 2019c; Witkowski et al., 2018).

The subject of this work was the relationship between physical activity and styles of coping with stress. The aim of the research was to examine and demonstrate whether there are connections between physical activity and styles of coping with stress, and to estimate the strength with which these possible relationships are manifested. In connection with the above, a research question was asked: are physically active people different from physically inactive people in terms of styles of coping with stress?

Material and methods

60 people took part in the study. The examined persons were aged 18-30. Samples consisted of 30 people. The first group consists of physically active persons, in which there were 12 women and 18 men, the second group were physically inactive persons with 21 women and 9 men. At the same time, those who were physically active were those who, at least three times a week, undertook various physical activities lasting at least one hour.

The CISS method was used in the study - Coping Inventory for Stressful Situations (Endler and Parker, 2005). The research technique was an individual questionnaire and the survey tool was a questionnaire. First, the respondents were asked to declare the amount, time and type of physical activity. Then, the respondents completed the Questionnaire of Coping in Stress Situations. This questionnaire is created for people between the ages of 16 and 79 and contains 48 questions about the actions that people undertake during a difficult and stressful situation. For each of the questions, the respondents respond in a five-point scale on the frequency with which they undertake these activities. Time to complete is unlimited. The results can be obtained on three scales: a task-focused style; style focused on emotions; style focused on avoidance. A style focused on avoidance can take two forms: engaging in substitute activities or seeking social contacts. The study used Spearman's rank correlation as the basic statistical method.

Results

The first detailed problem concerned the demonstration of the difference in the style of the task-focused style as coping with stress in physically active and inactive people. In the task-focused coping style ($r = 0.081$, $p = 0.539$), the results did not show statistical significance, which means that active and inactive people do not differentiate between task-focused style.

The second specific problem concerned the demonstration of the difference in the style of emotion-focused style. In this style, the correlation ($r = -0.207$; $p = 0.112$) approached the coefficient indicating the trend that physically inactive persons may present higher results in the area of emotion-focused style than physically active people.

The third specific problem concerned the demonstration of the difference in the style of avoidance-focused. In this style ($r = -0.235$; $p = 0.071$), the correlation indicated a trend that physically inactive people with respect to physically active people may exhibit more style focused on avoidance.

The fourth specific problem concerned showing the difference in coping with stress, as engaging in substitute activities, among active and physically inactive people. In the style of coping by engaging in substitute activities ($r = -0.0443$, $p = 0.742$) statistical significance was not demonstrated.

The fifth, the last detailed problem concerned the difference in coping with stress as a search for social contacts. In this style (r = -0, 335, p = 0.009), the correlation showed that physically inactive persons more often seek social contacts than physically active people.

Conclusions

The results of the CISS questionnaire showed that physically active people differ from physically inactive people in terms of styles of coping with stress within the style of a focused search for social contacts.

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