

STRESZCZENIE W JĘZYKU ANGIELSKIM

Physical activity and eating habits and stress in individual structural divisions of police officers

Introduction: In the current times, focused primarily on rapid development and consumption, we increasingly encounter the phenomenon of frequently repeated changes. They can be positive or negative. Their scope includes children, school youth, and working people. There is little time left to fulfill all the tasks related to work or study, and it is even more difficult to use it to fulfill activities related to physical activity. Therefore, there is a dependence of relations, or rather correct parities, between two main factors of human existence: in the case of the youngest it is study, while in the case of the older ones it is work, and on the other hand time intended exclusively for rest. This issue should be of primary importance in order to maintain the proper cycle and not lead to an imbalance between work and rest.

The profession of a police officer cannot be compared to a dangerous occupation, such as work at heights. The distinguishing element here is the responsibility of officers for the group and the individual, for their collective and individual safety, and this means that police work is burdened with enormous risk, evokes strong emotions and becomes a source of inherent stress. The main cause of stress for police officers, according to sociologists, is not the danger resulting from the performance of duties, because at the beginning of their career path everyone is aware that police service is burdened with many factors that negatively affect both physical and mental health. Instead, it is excessive burden, too extensive "bureaucracy" and inherent time pressure, which cause discouragement, impatience and a state of permanent tension. Police officers often do not have developed methods of combating stress, some take it home, which can have a negative impact on their loved ones, others relieve tension by practicing various sports disciplines, and still others, unfortunately, try to get rid of unhealthy emotions and lower their stress levels, using behaviors that are risky for health, e.g. by excessive consumption of alcohol or other stimulants, which often become the cause of serious problems.

Non-standard working hours make it impossible to plan time for rest only. Situations that increase nervous tension, caused by the specifics of the duties undertaken, occur more often. Pressure and responsibility to superiors and society also contribute to the imbalance

between work and rest. According to the Office of the Commissioner for Human Rights, „a police officer can be punished very easily”. It is enough to fail to comply with one of the many internal regulations.

Disruption of this rhythm of mutual dependencies can largely contribute to weakening the body, loss of resistance to all disease states, faster general fatigue of the body, regression of muscle-nerve coordination and to annoying joint or muscle pain. Police officers increasingly often complain of all kinds of allergies or neurological diseases in the form of migraines, tick or tension headaches. Other organs that are affected by the lack or limitations of movement are the heart and lungs. General efficiency and fitness, due to the lack of movement, decreases quite significantly. One of the most common examples is the moment of getting out of breath during faster steps, for example on the way to the tram, bus or climbing the stairs. In addition to the subjective feeling of loss of efficiency, manifested by exertional dyspnea, fats, salts and calcium gradually accumulate in the heart and, above all, in the large blood vessels. This condition causes hardening of the arteries, also known as sclerosis. Very often, these are also symptoms of a clear aging of the body. Balanced movement has a very positive effect on weakening the symptoms of these processes and even leads to their complete disappearance. In turn, lack of movement reduces the efficiency of the respiratory system, which is manifested primarily by a clear decrease in the vital capacity of the lungs.

The breathing process becomes superficial, effective ventilation decreases, which results in a reduced ability to supply the body with the oxygen necessary for the body.

Weakness also has a decisive influence on the effectiveness of coping with stress. Activities understood as rest usually take place in free time, which, according to current research, is becoming less and less. In the light of the presented facts resulting from the review of the literature, there is a need to undertake research aimed at determining the relationships between physical activity and the health of police officers in the context of stress. The dissertation assessed the level of activity, health and the perceived level of stress. Then, the relationships between health-promoting physical activity and health and the perceived level of stress were analyzed. The aim of this study is to determine the relationship between physical activity and health of police officers in the context of emerging stress.

The aim of this study is to determine the relationship between physical activity and health of police officers in the context of emerging stress. To achieve the aim of the work, the following research questions were formulated:

1. Are there differences between selected police departments and the achieved levels of physical activity?

2. Is there a relationship between police departments and health-risk behaviors?
3. Is there a relationship between the BMI index and the MET coefficient value in police departments?
4. Is systematic physical activity a factor that reduces the effects of stress in officers of individual police departments?
5. Are eating habits a factor that positively affects the reduction of stress in police departments?

The following assumptions were made in the work:

Hypothesis I: There are differences between selected departments and the achieved levels of physical activity.

Hypothesis II: There is a relationship between police departments and health-risk behaviors.

Hypothesis III: There is a relationship between the BMI index and the MET coefficient value.

Hypothesis IV: Regular physical activity is a factor that reduces the effects of stress in officers of individual police departments.

Hypothesis V: Proper eating habits are a factor that has a positive effect on reducing the level of stress in officers of individual police departments.

The selected research tool is a survey questionnaire. The International Physical Activity Questionnaire (IPAQ) in its short version, which was created in cooperation with experts from the World Health Organization and the Centers for Disease Control and Prevention, was used to measure physical activity. The questionnaire is available in two formats for conducting interviews (long and short version). The short version was deliberately chosen due to the specificity of the service and the possibility of correlating the results with research conducted in other doctoral dissertations.

To measure aspects and dimensions of health, eating habits and leisure behaviors along with physical recreation, due to the subject of the research undertaken and the specificity of police work, an original research questionnaire was used. Based on the literature and twenty years of professional experience, during which the author served in the Prevention and Criminal Divisions, questions were formulated that precisely corresponded to the issues undertaken in the work.

The Quetelet index, which is commonly used as a BMI indicator, was used to classify overweight and obesity in the research.

To measure the structure of stress experiences, a test based on the Perceived Stress Scale (PSS–10) was used. After consultations with specialists in psychology, questions were selected for the questionnaire that most closely matched the specifics of work in the Police and the subject of the research work undertaken. The main studies were preceded by pilot studies (Appendix 4).

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Preparation for the studies began with obtaining consent for the studies by resolution no. 707/17 of the Bioethics Committee at the Karol Marcinkowski University of Medical Sciences in Poznań. Then, pilot studies were conducted, the aim of which was to test the procedure and research tools.

The experience gained during the pilot studies was used during preparation for the main studies. The main studies were conducted in October and November 2018. In addition to the International Physical Activity Questionnaire (IPAQ, short version) and a test based on the Perceived Stress Scale tool (PSS–10), the subjects completed an original questionnaire regarding the self-assessment of the subjects: health, physical recreation, free-time behaviors and eating habits.

The study covered 250 officers of the Provincial Police Headquarters in Poznań, from five selected groups, i.e.: Criminal Division (23% = 54), Investigation and Investigation Division (21% = 52), Support Division (20% = 50), Prevention Division (19% = 48) and SPAP/GR (17% = 42) (Table 1). The study group constitutes (16%) of the entire staff of officers of the Provincial Police Headquarters in Poznań. The analyzed group was dominated by men (78%), the percentage of women was close to (22%).

Statistical analysis of the collected material allowed the following conclusions to be presented, which at the same time provide answers to the research questions posed. The obtained results allowed for positive verification of 4 out of 5 hypotheses.

1. Physical activity of police officers remains at a high level, significantly higher than the 12 selected professions. In correlation with selected representatives of uniformed services, the physical activity of police officers remains at the highest level. The level of frequency (undertaken per week), volume and intensity of physical activity of officers is also the highest.
2. Significant differences were found between individual divisions in terms of intensive, moderate and general activity. The results of individual divisions are decisively influenced by the specificity and wide range of activities undertaken

3. A statistically significant relationship between education and assessment of current health status was confirmed. People with a higher level of education assessed their health higher. It was not found that the assessments were related to the place of residence.
4. There is a relationship between self-assessment of health status and self-assessment of one's own physical activity. People who assessed their health status higher also assessed their physical activity higher.
5. A significant relationship was found between divisions in the police and health-risk behaviours. The results for individual divisions are decisively influenced by the range of activities undertaken, related to the hardships and dangers of everyday service.
6. There is no correlation between the BMI index and the MET coefficient value. Only a correlation was observed between the BMI index and the MET coefficient value for intensive physical activity, mainly in officers whose specific duties are related to intensive physical activity. Increased body mass, however, did not indicate overweight, but was caused by greater muscle mass. No more statistically significant correlations were found between the remaining MET indicators.
7. The research confirmed that the most frequently chosen way of dealing with stress symptoms is physical activity. According to the respondents, it is practiced primarily to improve health, maintain a stable form and for pleasure. A high level of physical activity was associated with the frequency of stress symptoms. Stress appeared less often in people with a higher level of physical activity.
8. A link has been shown between healthy eating habits and the frequency of stress symptoms. Stress was most common in people with an unhealthy diet.
9. Based on the research results, it is noted that there is a need to modify the programs in police schools and during qualification courses, in terms of education to increase the level of physical fitness, through regular physical activity and taking care of a healthy lifestyle.
10. Considering the fact that work and service in the Police structures is generally associated with high or very high energy expenditure resulting from the implementation of training and official tasks, as well as the need to maintain their good health and psychophysical condition at a high level, based on the results achieved before the introduction of the Regulation of the Minister of Internal Affairs

and Administration of September 28, 2020, which thoroughly reformed the nutritional standards for Police officers, I consider it necessary to compare both periods and then continue research on the development of the best-adapted nutritional standards for Police officers, based on an assessment of their daily energy requirements and all nutrients, taking into account gender, age, structural divisions, and physical activity.