



Health and its conditionality as a factor for increasing the level of safety in society

Zdravie a jeho podmienenosť ako faktor zvyšovania úrovne bezpečnosti v spoločnosti

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Abstract:

We are constantly aging, and the majority of diseases result from an improper diet and lack of physical movement. Health and a fit body figure is a shared dream among everyone, no matter the continent or country one is living in. For the technological advance, change in the natural and social environment, humanity has to pay a great price. More often things lead to a disordered nervous system, weakened immune system and an impairment in the functionality of the morph functional structure. Diseases of the XXI century are the most common consequences of this state; including diseases of the circulatory system, diabetes (select types), tumors, osteoporosis, obesity, asthma and other diseases of the respiratory system, back pain, neurosis, psychosomatic disorders, brain trauma, allergies and many more diseases.

The purpose of the research was to determine pro-healthy behaviors of students studying in fields related to safety, selected two universities from Košice (Slovakia) and from Kraków (Poland) as a factor of increasing the level of security of the society. The research group consisted of 66 students of the Academy of Public and Individual Security in Krakow APEIRON and 70 students from the University of Security Management in Košice. An own structure survey questionnaire was used, containing 9 questions about nutrition and hydration of the body, as well as physical activity and sleep. Based on the analysis of the obtained results, the following conclusions were made: the frequency and duration of physical activity undertaken among the researched students from both universities is at a similar and high level, physical activity is a priority for respondents in



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maintaining health and safety, both individual and in the population, nutrition, hydration and sleep in the daily life of respondents play a dominant role in health.

Keywords: *health, negative and positive factors, safety culture*

Abstrakt:

Neustále starneme a väčšina chorôb je výsledkom nevhodnej stravy a nedostatku fyzického pohybu. Zdravie a vhodná telesná postava je spoločným snom každého, bez ohľadu na kontinent alebo krajinu, v ktorej žije. Za technologický pokrok, zmenu v prírodnom a spoločenskom prostredí musí ľudstvo zaplatiť veľkú cenu. Častejšie dochádza k porušeniu nervového systému, k oslabeniu imunitného systému a k narušeniu funkčnosti morfolologickej štruktúry. Choroby XXI storočia sú najčastejšími dôsledkami tohto stavu; vrátane chorôb obehového systému, cukrovky (vybrané typy), nádorov, osteoporózy, obezity, astmy a ďalších chorôb dýchacieho systému, bolesti chrbta, neurózy, psychosomatických porúch, traumy mozgu, alergie a mnoho ďalších ochorení. Cieľom výskumu bolo zistiť pro-zdravé správanie študentov v oblasti bezpečnosti, vybrať dve univerzity – Košice (Slovensko) a Krakov (Poľsko) ako faktor zvyšovania úrovne bezpečnosti spoločnosti. Výskumná skupina pozostávala zo 66 študentov Akadémie verejnej a individuálnej bezpečnosti v Krakove APEIRON a 70 študentov z Univerzity bezpečnostného manažérstva v Košiciach. Použil sa dotazník vlastného štruktúrného prieskumu, ktorý obsahoval 9 otázok týkajúcich sa výživy a hydratácie tela, ako aj fyzickej aktivity a spánku. Na základe analýzy získaných výsledkov boli urobené tieto závery: frekvencia a trvanie fyzickej aktivity vykonávanej medzi skúmanými študentmi z oboch vysokých škôl je na podobnej a vysokej úrovni, fyzická aktivita je prioritou respondentov pri udržiavaní zdravia a bezpečnosti, individuálne a v populácii. Výživa, hydratácia a spánok v každodennom živote respondentov zohráva dominantnú úlohu v oblasti zdravia.

Kľúčové slová: *zdravie, negatívne a pozitívne faktory, kultúra bezpečnosti*

1. Introduction

We are constantly aging, and the majority of diseases result from an improper diet and lack of physical movement. Health and a fit body figure is a shared dream among everyone, no matter the continent or country one is living in. Despite having the knowledge about ongoing involution processes, the negative effect of societal factors and the risk of the insufficiency of the human organism, there continues to remain a large amount of our population that does not take care of their own health or the health of their loved ones [1]. In 1988, at the World Health Assembly, Poland undertook the World Health Declaration, an idea, that health is the basis of human rights. In the foundation of the National Health Program, lies a definition from the World Health Organization (WHO), which defines health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity”. The principle concept of the following versions of the National Health Program, was the concept taken from the Ottawa Charter of Health Promotion (1986), defining the promotion of health as the “process of enabling people to increase control over their health, by making the right choices and decisions.” A person’s health depends on many mutually coherent factors, among which four groups stand out: lifestyle (50%), physical environment (natural, and the one constructed by the person) and social life including work and education (20%), genetic factors (20%), health care system (10%). Improving health and quality of life, and decreasing inequality of health

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are goals which NPZ strive to achieve primarily through: educating society about a pro-health lifestyle and creating a social, work and educational environment favouring health. Lifestyle is mainly comprised of: physical activity, proper diet, ability to manage stress, the use of nicotine, alcohol and stimulants, as well as sexual behaviour. There are many factors that correlate with each other and influence health. Apart from genetics, these factors can have a direct effect ex. diet and addictions as well as indirect: for ex. macro-economical and social-demographical conditions, that can have a positive or negative effect at the same scale as direct factors. Acknowledging the influence of clinical medicine and its achievements at the beginning of the XXI century, it is important however, to note that clinical medicine is unable to sufficiently take care of a person's health. Over the course of the centuries, a short period of time existed in China, where the doctors were paid for "health", in other words, up until "someone" from the Empire became ill. For hundreds of years now, doctors focus their attention on the disease itself, but health and its prophylaxis, in most cases remain a concept. We are unable to effectively deal with diseases of the XXI century. Why is that? A healthy human is a being of morph functional balance, and full integration of his systems. Energy potential is equally important for a human organism. An incorrect lifestyle contributes to lowering the human organism's life potential, which consequently leads to a decreased lifespan.

2. Purpose of the work and reasearch questions

For the technological advance, change in the natural and social environment, humanity has to pay a great price. More often things lead to a disordered nervous system, weakened immune system and an impairment in the functionality of the morph functional structure. Diseases of the XXI century are the most common consequences of this state; including diseases of the circulatory system, diabetes (select types), tumors, osteoporosis, obesity, asthma and other diseases of the respiratory system, back pain, neurosis, psychosomatic disorders, brain trauma, allergies and many more diseases.

The purpose of the research was to determine pro-healthy behaviors of students studying in fields related to safety, selected two universities from Košice (Slovakia) and from Kraków (Poland) as a factor of increasing the level of security of the society. To achieve the above goal, the following research questions were posed:

1. Is the frequency and duration of physical activity undertaken among the students from both universities at an equal level?
2. Is physical activity for the researched a priority for maintaining health and safety?
3. What is the role of nutrition and hydration of the body, as well as sleep in the daily life of respondents?

3. Test material and research methods

The research group consisted of 66 students of the Academy of Public and Individual Security in Krakow APEIRON and 70 students from the University of

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4. Results

The results of the analysis of obtained information on students' lifestyle are presented: (men Kraków: M K-w, men Košice: M K-e, women Kraków: W K-w, women Košice: W K-e).

Tab. 1. Amount of meals consumed daily

Gender and university	N	1-2	3-4	5 and more
M K-w	34	1	28	5
M K-e	36	1	31	4
W K-w	32	1	28	3
W K-e	34	2	28	4

Tab. 2. Regularity of meals consumed during the day

Gender and university	N	Yes	No
M K-w	34	24	10
M K-e	36	24	12
W K-w	32	27	5
W K-e	34	27	7

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Tab. 3. Paying attention to the nutritional value and composition of consumed products

Gender and university	N	Yes	No	Sometimes
M K-w	34	11	4	19
M K-e	36	10	6	20
W K-w	32	12	4	16
W K-e	34	12	5	17

Tab. 4. The amount of liquids consumed during the day

Gender and university	N	Less than 1	1-2	More than 2
M K-w	34	1	16	17
M K-e	36	1	17	18
W K-w	32	2	20	10
W K-e	34	3	21	10

Tab. 5. The problem of overweight

Gender and university	N	Yes	No
M K-w	34	5	29
M K-e	36	5	31
W K-w	32	6	26
W K-e	34	5	29

Tab. 6. Moving in your city

Gender and university	N	Car	Public transport	Bicycle	On foot
M K-w	34	12	15	1	6
M K-e	36	13	14	1	8
W K-w	32	10	17	0	5
W K-e	34	11	18	0	5

Tab. 7. Taking physical activity during the week

Gender and university	N	None too	1-2	3-4	5 and more
M K-w	34	0	12	13	9
M K-e	36	0	13	14	9
W K-w	32	0	12	13	7
W K-e	34	0	13	12	9

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Tab. 8. Health assessment

Gender and university	N	Very good	Good	Rather good	Enough	Insufficiently
M K-w	34	4	21	5	4	0
M K-e	36	5	19	6	6	0
W K-w	32	2	11	12	7	0
W K-e	34	3	13	12	6	0

Tab. 9. Dedicated time for sleep during the day.

Gender and university	N	More then 8	6-8	Below 6
M K-w	34	9	24	1
M K-e	36	9	25	2
W K-w	32	8	24	0
W K-e	34	8	26	0

5. Summary

The fight against diseases over the past centuries has not achieved solid results, unknown diseases and epidemic waves continue to appear, and the morbidity is not decreasing. Keeping in mind the constructive effect of prophylaxis, it is imperative to act against the disease factors of the XXI century. Medical research should be related back to an individual's health. Therefore, it is essential to keep the holistic approach in mind, because without treating the human organism as a whole, all composed analysis provides strictly selective information about an individual's health. The essence of maintaining a good quality of life is striving towards stimulating health and the organism's immune system, most importantly through physical activity and a proper diet combined with supplementation. A significant part of health depends on the intensity and duration of physical activity, those being two main factors that can have a positive influence on the circulatory system. The effective strategy ensuring and improving health lies in physical activity, training all organs and bodily systems. Trusting pharmaceuticals is interim, as they temporarily mask the symptoms, however they do not eliminate the root cause of the disease or current bodily state. The human being reaches the optimal level of motor efficiency around the age of 30. Men have a significantly greater advantage in respect to strength and endurance, whereas women have an advantage in respect to precision, rhythm and fluidity. It is impossible to maintain a high level of physical fitness throughout one's entire life because the natural, biological, and preconditioned genetic processes of aging cannot be denied. The middle years in an adult's life are a period of relative body equilibrium and the beginning of involution processes. The level of psychomotor excellence is differentiated depending on the an individual's physical activity level. The physically active may continue, without difficulty, to ski, play tennis, take up jogging and many

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other disciplines. Unfortunately, those who did not play any sports or lead an active lifestyle, are more often affected by issues with movement and range of motion. The cause of involution is the biological process of aging, which may display itself in the following ways: changes in the nervous system (the amount of nerve fibres decreases by 27%, consumption of brain oxygen and the rate of firing neurons decreases by 35%), decreased muscle strength (muscle mass lowers by around 30%), changes in the circulatory system (decreased strength, longer cramps of the heart muscles by approximately 45%, decreased minute volume of the muscle), changes in the respiratory system (maximal lung volume decreases by approximately 40%) [2,3].

Involution changes are irreversible and their effect lowers the body's energy efficiency, decreases work performance (approximately by 30%), drop in immunity against environmental bacteria as well as a lowered ability to adapt in different situations. The first motor involution can be and should be moved with time through choosing the proper exercises and the correct diet strengthened by supplementation, but most importantly through systematic and consistent daily use.

Health and good self-esteem should be every person's attribute. Without a high level of: energy and immunity, mechanisms protecting from tumors, circulation diseases and stress, the life-span is short. Around 2500 years ago, Hippocrates (460-377 BC) constructed the health ideology saying that:..."the entire medical knowledge has two powerful pillars, on which it supports itself. They are exercises and diet". He was a strong propagator of physical activity as a means of healing, studying the prophylactic significance of physical exercise.

The idea of "safety", describes a state, which is characterized by a lack of danger, through which one understands the likelihood of occurrences that are adverse to the human existence, including health and life, as well as the existence of perspective for further development. Various research measures, providing perspectives on how to eliminate what is dangerous for human development and functionality, concern the area of research pertaining the fitness culture [4]. This area specifically includes individual safety, which directly affects every individual. Components include the broad understanding of a person's fitness, health, and quality of life. It seems as though securitology, the study of widely interpreted safety, should become an equally important element in research about fitness in favor of eliminating dangers.

Holism is an idea that describes looking at a human being as a whole, composed of mind, body and soul. Health and disease are defined through the concept of homeostasis, the state of functional equilibrium supported by the idea of holism. In the case of disrupting equilibrium, biological, psychological and social factors work together to maintain health.

One goal of the fitness culture is a functional human body, which will not function properly without the balance between psychological and social factors which are significant in the development of diseases, their prophylaxis and health promotion.

Majority of the factors determining safety and the need for safety depend on the individual. External institutions serve to support the individual's actions. In many societies around the world, there is an urgent need to educate about the threats to health that are drawn from the psychological, spiritual and social realms.

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Conclusion

Based on the analysis of the obtained results, the following conclusions were made:

1. The frequency and duration of physical activity undertaken among the researched students from both universities is at a similar and high level.
2. Physical activity is a priority for respondents in maintaining health and safety, both individual and in the population.
3. Nutrition, hydration and sleep in the daily life of respondents play a dominant role in health.

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