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Motor activity as healthy lifestyle requirement

Aktywność ruchowa jako imperatyw zdrowego stylu życia

INTRODUCTION

The general lifestyle of the population has radically changed since the times of the scientific and technical revolution of the 19th century. Physical activity of an average man has been reduced following the invention and general use of various types of automatic machines, robots and computers. Physical effort has been replaced by psychical, nervous and intellectual effort. Moreover, the intellectual effort has been better appreciated than the physical effort, which is clearly seen in the criteria, scales and wage rates accepted by the modern methods of work evaluation.

The development of modern technologies and work methods requires an extended and intensified school time. The process of education and then, professional training, is now a life time process of a permanent character far beyond one's graduation from a vocational college, high school or university. The civilization changes together with urban development are accompanied by low physical activity, and, in consequence, decreased workload of the motor, circulatory and respiratory systems while the nervous system workload gets several times heavier. In such circumstances the psychophysical balance in the human organism inevitably comes to a disorder, and some kind of counteraction is required [5].

OBJECT, METHOD AND RESEARCH MATERIAL OF THE STUDY

This study aims at presenting the rational arguments for the need of motor activity at various stages of human life. This need is in fact an imperative, that is a moral responsibility before ourselves and the community we live in [3]. Arguments for this thesis can be found in the works by famous scientists, research results and statistics related to the health condition and physical shape of the worldwide society including Poland.

The primary research material for this study were the statistical data referring to the death rate of Poles resulting from a wide range of diseases between 1970 and 2000. The

source of those was the Year Book and the Demographic Year Book published by the Central Bureau for Statistics (GUS) in 2002 [9, 10].

RESULTS OF THE STUDY

The opinion of scientists as to the role of motor activity (physical, sport and recreational activity) in the human life has remained unchanged for the last 20-30 years. According to S. Kozłowski, a well-known physiologist, motor activity plays a key role as one of the few methods of treatment of such diseases as: myocardial ischemia, obesity, carbohydrate metabolism disorders, diabetes, and possibly arterial hypertension, etc. [4, 8]. Systematical exercise accompanied by correct nutrition is essential for reducing obesity, according to T. Mieczkowski [6]. A. Jegier stresses the beneficial influence of physical effort on the heart condition. This relates to the elimination of the “sitting way of life” – one of the principal factors causing many civilization diseases. On the other hand, she says that sport may also be the reason for the circulatory system problems, especially in those patients who suffer from an undiagnosed heart problem or are unprepared to do intensive training. This, however, happens rarely [2].

The following scientists: R. Trzeźniowski, R. Przeweda, J. Charzewski, M. Nowak have conducted research on the motor activity of the Poles. J. Charzewski concludes that the sport activity in the Polish society lowers with age and the level of urban development. Men older than 35 represent particularly low physical activity. Only 10% of men aged 35-60 are physically active [1]. M. Nowak drew a similar conclusion. In her study covering the sport activity of the Polish women she observed that out of the total number of people who do not do any kind of exercise, 90% were women after 35 [7].

Scientists are of the same opinion as to how significant exercising is to the prevention of various diseases including the circulatory system diseases. Thus, there is a question whether the negative results of low physical activity of the Poles older than 30-35 can be found in the statistical data. In order to check this, the death rates of the Poles following various diseases (table 1, 2 and 3) were collected. Chart 1 presents the number of deaths from various diseases in Poland in 1970-2000.

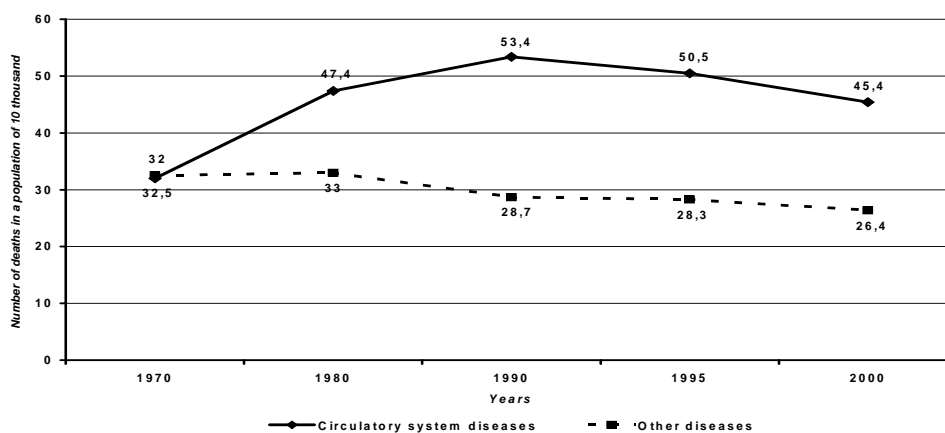


Chart 1. Deaths from various diseases in Poland in 1970-2000 (in the population of 10 thousand)

Based on chart 1, the following conclusions can be drawn: the number of deaths resulting from the circulatory system diseases exceeds the number of deaths from other diseases including the diseases of the nervous, respiratory and digestive system, as well as the psychological disorders, hormonal system disorders, metabolism disorders and external death causes (e.g. accidents, suicides).

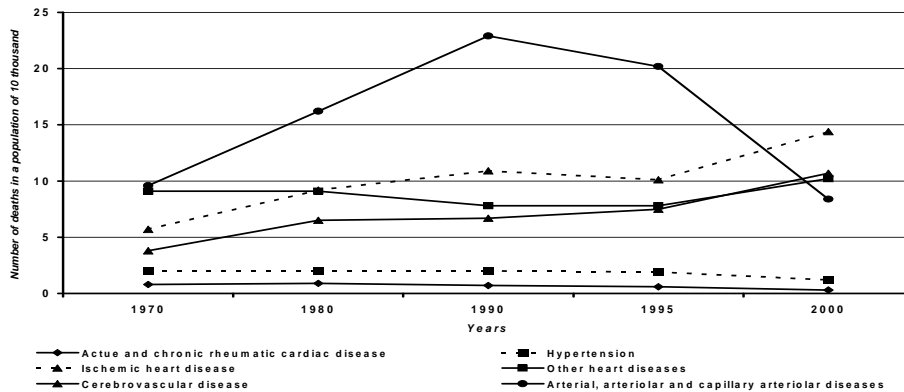


Chart 2. Number of deaths from specific circulatory system diseases in Poland in 1970-2000, in a population of 10 thousand.

The role of physical exercise is especially essential for people aged 35-60, since this is the age range of the excessive (unnatural) death rate of the examined group of people (chart 3).

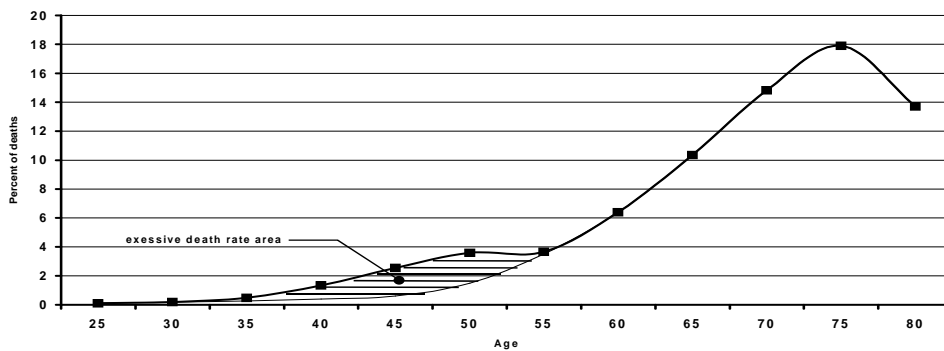


Chart 3. General number of deaths from circulatory system diseases according to the age in 2000.

After having analyzed the curve representing the number of deaths caused by circulatory system diseases in Poland in specific age groups, it can be assessed that in 2000 around 7 thousand people aged 35-60 got into the area of excessive (unnatural) death rate, which constitutes 4% of the whole number of people dying from this type of diseases. It is highly possible that the principal reason for those deaths was improper lifestyle with no physical exercise.

CONCLUSIONS

1. Excessive (unnatural) growth of the death rate in Poles aged 35-60 resulting from circulatory system diseases is accompanied by noticeable decrease of physical exercise applied by people of this age.
2. At least several thousand people aged 35-60 die unnecessarily in Poland each year in consequence of their minimal physical activity.
3. A significant growth of motor activity of the society should become one of the priorities of the state social policy and the state health protection program.

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SUMMARY

Civilisation changes are connected with a decreased motor activity of a man, expressed by a decreased load of motor, circulatory and respiratory system, at the same time, by a far more increased load of nervous system.

The aim of this work was to present rational arguments, which prove the utter necessity of the movement activity of a man in various periods of his/her life.

Opinions of the scientific authorities are conformable as far as the importance of the movement activity in the prophylactic of many diseases, and particularly of the diseases of the circulatory system. The number of deaths as a result of the diseases of the circulatory system exceeds the number of deaths caused by remaining diseases, including the diseases of the nervous, respiratory and digestive system and of the psychic disorders, disorders of the internal secretion and metabolism, as well as of the external causes of death (ex. accidents, suicides) etc.

Among the diseases of the circulatory system the diseases of arteries, arterioles, capillaries as well as cardiac ischemia are the most frequent causes of deaths.

When analysing the curve of mortality of the Polish population as a result of the diseases of the circulatory system in particular age groups, it can be estimated that the excessive (unnatural) death rate of the population aged between 35-60 is 7 thousand people per year. This accounts for nearly 4% of people dying as a result of such diseases. It can be assumed, in all probability, that the main reason of these deaths was the improper lifestyle, including the limited movement activity.

STRESZCZENIE

Zmiany cywilizacyjne związane są z coraz większym obniżeniem aktywności motorycznej człowieka, wyrażającym się zmniejszonym obciążeniem układu ruchowego, krążeniowego i oddechowego, przy równoczesnym wielokrotnie większym obciążeniem układu nerwowego.

Celem pracy było zaprezentowanie racjonalnych argumentów, świadczących o bezwzględnej konieczności aktywności ruchowej człowieka w różnych okresach życia.

Opinie autorytetów naukowych są zgodne co do znaczenia aktywności ruchowej w profilaktyce wielu chorób, a zwłaszcza chorób układu krążenia. Liczba zgonów w następstwie chorób układu krążenia przewyższa liczbę zgonów z powodu wszystkich innych chorób, w tym chorób układu nerwowego, oddechowego, trawiennego, zaburzeń psychicznych, zaburzeń wydzielania wewnętrznego, przemiany materii, zewnętrznych przyczyn zgonu (np. wypadków, samobójstw) itp.

Wśród chorób układu krążenia najczęstszymi przyczynami zgonów są choroby tętnic, tętniczek, naczyń włosowatych oraz choroba niedokrwienia serca.

Analizując krzywą śmiertelności ludności Polski, z powodu chorób układu krążenia, w poszczególnych grupach wiekowych, można oszacować, że nadmierna (nienaturalna) śmiertelność populacji w wieku 35-60 lat, wynosi ok. 7 tys. osób rocznie. Stanowi to blisko 4% osób umierających w następstwie tego typu chorób. Z dużym prawdopodobieństwem można przyjąć, że główną przyczyną tych zgonów był niewłaściwy sposób życia w tym ograniczona aktywność ruchowa.