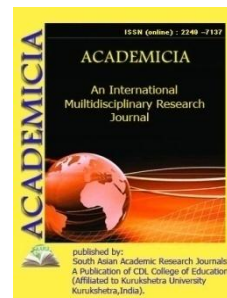




ACADEMICA
An International
Multidisciplinary
Research Journal
(Double Blind Refereed & Peer Reviewed Journal)



DOI: 10.5958/2249-7137.2021.01379.3

IMPACT OF LIFESTYLE ON THE PHYSICAL DEVELOPMENT AND HEALTH OF ELDERLY AND OLD AGE PEOPLE (REVIEW)

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ABSTRACT

Taking into account the peculiarities of age-related changes in the body, which determine the relevance of medical and social activities, the main tasks of geriatrics are the preservation of the physical and mental health and social well-being of the elderly and old people. The basis for maintaining the health of older age groups is not only qualified treatment, but also competent prevention, which implies a solid foundation of knowledge and capabilities of medicine. A sedentary lifestyle, which prevails in old age, leads to premature deterioration in health, illness and weakness. The physiological rationale for physical activity, risks of adverse events, social and psychological factors are discussed to inform public health initiatives for relatively healthy older people as well as those with disabilities. The most common sign of premature aging is an energy imbalance, accompanied by obesity, decreased mobility, a decrease in the rate of neurohumoral regulation of metabolism and a number of other physiological functions of the body. Meanwhile, in connection with the increase in the average life expectancy of the population, knowledge in the field of geriatrics should be constantly replenished and improved.

KEYWORDS: *Peculiarities, Capabilities, Well-Being, Preservation*

INTRODUCTION

Aging is a biological destructive process that inevitably develops with age. Aging leads to a limitation of the organism's adaptive capabilities, a decrease in its reliability, the development of age-related pathology, that is, to old age [14]. Old age is a naturally coming final period of human developmental age [32]. Aging is not a disease; it is one of the stages in the development of the body. Aging is accelerated by a sedentary lifestyle, prolonged or repeated stressful situations, inappropriate nutrition, chronic diseases, bad habits, hereditary predisposition [24]. The most frequent signs of accelerated aging are rapid fatigue, early graying, decreased ability to work, early loss of memory, reproductive capacity [26]. The problem of longevity has worried mankind for many centuries. In the meantime, the elixir of eternal youth has not been invented, modern doctors recommend, if possible, leading a healthy lifestyle. In old and older age, irreversible changes occur in the systems and organs of the human body, called aging [22].

MATERIALS AND METHODS

Currently, the increase in the value of human life requires a shift in the focus of attention to the individual characteristics of a person and the prerequisites for the onset of diseases [6;7].

In modern literature, studies devoted to the study of physical development and constitutional characteristics of childhood, adolescence and adulthood prevail, and practically no attention is paid to the problems of old age and longevity, which are directly related to an increase in the duration of active life. Meanwhile, in connection with the increase in the average life expectancy of the population, knowledge in the field of geriatrics should be constantly replenished and improved. The area of knowledge that forms the basis of health is also important - this is physical development. In old and senile age, physical development undergoes a number of regular changes and has its own characteristics [21].

Constitutional diagnostics is an important stage in solving the problems of medical anthropology. Currently, it is difficult to predict the possibility of development and the characteristics of the course of pathological processes in a particular person without taking into account the type of his physique [8]. The constitution is the basic characteristic of an integral organism, which gives a complete idea of the quantitative unity of its biological organization [4]. The study of the individual typological characteristics of the population is one of the primary tasks of the preventive direction of medicine [10]. This approach opens up new prospects for early diagnosis and prevention of diseases [31].

Regular physical activity helps improve physical and mental function, as well as reverse some of the effects of chronic illness, so that older people remain mobile and independent. Despite the well-publicized benefits of physical activity, the vast majority of older adults do not meet the minimum levels of physical activity required to maintain health. A sedentary lifestyle, which prevails in old age, leads to premature deterioration in health, illness and weakness. The physiological rationale for physical activity, risks of adverse events, social and psychological factors are discussed to inform public health initiatives for relatively healthy older people as well as those with disabilities. Evidence shows that regular physical activity is safe for healthy and frail older adults, and the risks of serious cardiovascular and metabolic disease, obesity, falls, cognitive impairment, osteoporosis, and muscle weakness are reduced by regularly doing a variety of activities, from walking to walking at low intensity to more active sports and

resistance exercises. However, the participation of older people in physical activity remains low, especially among those living in less affluent areas. Older adults can be encouraged to be more active if they are influenced by doctors, family or friends, with low costs and high pleasure [77; 91; 93; 96; 102; 105]

Main part

In connection with the changing environmental conditions, economic and social living conditions, there is an increase in the number of persons of older age groups in the population [2].

Medical science faces an important task in the development of criteria for the body's resistance to the effects of various factors [5; 7].

The study of individual indicators of physical development and typological characteristics of the population is one of the tasks of the preventive direction of modern medicine and allows early diagnosis of diseases and their prevention [10]. Somatotypological diagnostics is an integral component in assessing physical development and a basic characteristic of a whole organism, since it is she who serves as a predictor of a number of diseases inherent in a certain type of constitution [31].

With age, there is a change in all anthropometric parameters. The change in each indicator is strictly individual and is associated with factors such as the presence of a number of diseases in an individual, dietary habits, physical activity, social and marital status, climatic conditions of living, etc. –chivaya integrity and optimal conditions for his life. Somatypes are regarded as ways of adaptation of the organism to the environment [5; 13].

In older age groups (elderly, senile and longevity), in addition to the intragroup variability of indicators of physical development and body composition, in particular those characteristic of all population groups, specific intergroup changes characteristic of older age are also revealed [11].

Assessment of the absolute and relative content of the main components of the body helps to objectively assess the metabolic processes occurring in the body, in particular, the slowdown of metabolic processes with age in older age groups. Expansion of knowledge in these fundamental areas of science will help to carry out preventive measures, as well as to treat diseases in older age groups individually, which is a priority task of modern medicine [12].

Age is not simply a biological function of the number of years lived or the physiological changes that the body goes through throughout its life. It is also a product of social norms and expectations that apply to every stage of life. Age is a wealth of life experiences that shape who we become. Thanks to medical advances that extend human life, old age has taken on a new meaning in societies that have the means to provide high-quality health care. However, many aspects of aging also depend on social class, race, gender and other social factors [16; 17]. An active lifestyle contributes to the maintenance and improvement of health and well-being and disease prevention among older people [30]. In particular, physical activity (PA) reduces the risk of cardiovascular disease [27] and osteoporosis and improves cognitive function [34] and subjective well-being [33]. PA properties such as gait speed allow predicting the probability of survival within 10 years [28], and population-level estimates suggest that if inactivity were eliminated, life expectancy worldwide would increase by 0.68 years [29]. According to the most

widely used definition, which describes PA as “any movement of the body produced by skeletal muscles that results in energy expenditure” [18], the benefits can be derived from PA performed for a variety of purposes, including structured exercise, walking for transportation, heavy work, and housework. It is important to note that activities such as walking are especially accessible to older people [31], allow people to fulfill the recommendation of the World Health Organization (WHO) to perform at least 150 minutes of PA of medium intensity per week. These recommendations were made on the basis of growing data on the beneficial properties of PA and the growing importance of physical inactivity as a risk factor for mortality [25].

The levels of PA in the elderly worldwide are too low, while most studies report that 40 to 80% of older adults do not meet the recommendations for PA [23]. Findings about historical trends in PA involvement are conflicting. Regular participation in PA - defined as following the recommendations of the WHO PA [25] or physical activity at least five times a week - appears to have decreased in several countries [130], probably due to a decrease in the number of PA associated with work, while the levels of PA in other countries have increased, possibly due to an increase in PA in free time [24]. Accordingly, people aged 55 and over are the most sedentary group of the population, even when considering walking, an activity that is popular among older people and is easily accessible to them [23]. PA levels are often even lower in older age groups, for example, over 65 years old [17]. However, within this age group, there are significant individual differences in PA levels. In an attempt to determine the potential for intervention, individual characteristics associated with higher levels of PA have been the subject of many studies.

Aging processes are characterized by gradual evolutive changes in most tissues, organs and systems, which entails a change in their functional capabilities and, as a consequence, the functional capabilities of the whole organism [24]. General physical activity decreases, health deteriorates, and the number of chronic diseases increases. The processes of the immune response are disrupted, as a result of which the susceptibility to infections and the growth of malignant neoplasms increases [19]. Age shifts can be summed up with pathological ones and develop into diseases. Polymorbidity occurs, as a rule, due to chronic diseases; 3-5 diseases and more can develop at the same time. General changes in the body that occur during aging are a decrease in the content of total and intracellular fluid, a slight increase in extracellular fluid, a reduction in muscle mass (sarcopenia) and a decrease in muscle strength, a violation of the structure and amount of bone mass, a decrease in the basal metabolic rate of the body, an increase in the amount body fat, increased blood glucose [12].

The incidence rate in the elderly (60-74 years old) is almost 2 times higher, and in elderly people (75 years and older) - 6 times higher than in young people. It is noted that the older population suffers from multiple severe chronic diseases occurring against the background of reduced compensatory capabilities [1].

Up to 80% of old-age pensioners need medical and social assistance. More than 70% of this category of persons have 4-5 chronic diseases of the cardiovascular, nervous, endocrine, hematopoietic, osteoarticular systems, respiratory system, digestion, etc. [18].

Aging is associated with an increased risk of death and maladjustment. Starting from 30-35 years, every 8 years the probability of death doubles, but after 90 years this dependence decreases. The risk of developing oncopathology, starting with the same age group, doubles

every 11 years. From 60 years of age, the risk of developing maladjustment and the associated pathological process is significantly higher compared to younger age. If we consider the proportion of diseases in these age groups, then IHD is 40%, tumors - 20%, ischemic brain disease - 10% [14].

According to scientific research, the need for outpatient care among the elderly is 2-4 times higher than among people of working age. The need for hospitalization for certain types of specialized medical care (cardiology, endocrinology, pulmonology, urology, ophthalmology, neurology, psychiatry, etc.) is 1.5-3 times higher than among the working-age population [11].

Elderly and senile people are characterized by a variety of functional disorders and a plurality of chronic diseases (polymorbidity), which determine the needs and requirements for various types of medical and social assistance. During the examination, they usually reveal 3-9 diseases. This determines the increased need for medical and social assistance. The presence of chronic diseases is one of the main reasons for the deterioration in the quality of life. With age, physical discomfort becomes more pronounced, and memory changes progress. All elderly people need annual medical monitoring of their health and preventive rehabilitation, about 12-15% in various types of permanent medical and social assistance. In old age (over 75 years), every fourth person does not leave the apartment on their own and uses medical services exclusively at home or in stationary medical and social institutions [9].

The functional status of the elderly includes physical, cognitive, behavioral, psychological, social, economic components, as well as factors such as the environment and quality of life [6]. Other important aspects reflecting the functional state of the elderly include the psychological, social, and economic status of this population. WHO experts believe that assessing the functional capabilities of the elderly requires not only an assessment of activities in everyday life, but also an assessment of mental and physical conditions, socio-economic conditions and environmental conditions [11].

Several ways are recommended for assessing the health status of the elderly: personal perception of the elderly, the degree of limitation of their usual activity, the number of days of activity restrictions and the number of bed-days of patients with functional impairments. To improve the quality of life of the elderly, the preservation of vision and hearing is important; impairments of the sensory organs negatively affect the participation of an individual in society. Sensory impairments in older people over 65 increase in proportion to age [19].

Proper nutrition is also a powerful means of managing the aging process and preventing the premature development of changes and disorders in the body [13]. It is generally accepted that with aging there is a decrease in the adaptive capabilities of the organism and the functional abilities of organs and systems [15]. Aging is accompanied, first of all, by a gradual decrease in the intensity of metabolic processes that underlie the vital activity of the organism. The most common sign of premature aging is an energy imbalance, accompanied by obesity, decreased mobility, a decrease in the rate of neurohumoral regulation of metabolism and a number of other physiological functions of the body. Often, energy imbalance manifests itself in a violation of lipid metabolism, in particular cholesterol, leading to atherosclerosis and other changes in the work of the cardiovascular system [5]. In old age, excessive food cravings are often observed. Overeating leads to an increase in body weight and metabolic disorders, which, in turn, adversely affects health. Overeating and subsequent obesity is by no means indifferent to the body of an

elderly person. As you know, obesity predisposes to diseases such as diabetes, gastrointestinal, cardiovascular diseases, urinary and cholelithiasis, gout [31].

CONCLUSION

It is generally accepted that the most useful foods for the elderly are fermented milk products. The study of the actual nutrition of centenarians shows that their nutrition is characterized by a pronounced milk-vegetable orientation, low consumption of salt, sugar, animal oil, meat, fish.

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