PERSONALITY AS A SUBJECT OF RESEARCH: HISTORY, THEORY, METHODOLOGY

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ГЕРОНТОЛОГИЧЕСКИЕ АСПЕКТЫ СОМАТИЧЕСКИХ ЗАБОЛЕВАНИЙ: ОБЗОР СОВРЕМЕННОГО СОСТОЯНИЯ ИССЛЕДОВАНИЙ

GERONTOLOGICAL ASPECTS OF SOMATIC DISEASES:
OVERVIEW OF THE CURRENT STATE OF RESEARCH

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Аннотация:

Данная статья посвящена обзору теоретических и эмпирических данных о современном состоянии геронтологических исследований в сфере соматических заболеваний. Представлены основные модели и теории старения, раскрывается их основная идея и понимание причин и процессов старения. Рассматривается понятие геротрансцендентности как ресурса оптимального старения. Геротрансцендентность рассматривает процесс старения как с биологической, так и с психологической точек зрения (комплексный подход). Отмечается, что на сегодняшний день отсутствуют исследования оптимального старения и геротрансцендентности в условиях соматического заболевания (исследовались лишь условно здоровые респонденты). Перечислены три группы соматических заболеваний,

Abstract:

This article is devoted to a review of theoretical and empirical data on the current state of gerontological researches in the field of somatic diseases. Presented the main models and theories of aging, revealed their basic idea and understanding of the causes and processes of aging. Considered the concept of gerotranscendence as a resource for optimal aging. Gerotranscendence examines the aging process from both biological and psychological points of view (an integrated approach). It is noted that there are no studies of optimal aging and gerotranscendence under conditions of somatic disease (only conditionally healthy respondents were studied). Three groups of somatic diseases are listed, which, according to UN statistics, are the main causes of mortality in the world (malignant neoplasms, stroke, heart disease). Presented the results of the

которые, согласно статистике ООН, являются основными причинами смертности в мире (злокачественные новообразования, ОНМК, болезни сердца). Рассмотрены эмпирические исследования, посвященные изучению влияния вышеперечисленных заболеваний на психологические характеристики (эмоциональная сфера, психологическое благополучие, отношение к болезни и т.д.) пожилых людей. В целях более полного и комплексного изучения процесса старения, для понимания механизмов преодоления болезни, которые помогут формировать оптимальный уровень психологического благополучия пожилых людей и, следовательно, оптимальное старение, актуальным является изучение феномена геротрансцендентности людей пожилого возраста в условиях тяжелого соматического или угрожающего жизни заболевания.

Ключевые слова:

геронтология, геротрансцендентность, оптимальное старение, онкология, инсульт, инфаркт.

empirical studies about the effect of somatic diseases on the psychological characteristics of elderly people (emotions, psychological well-being, attitudes towards illness, etc.). In order to more fully and comprehensively study the aging process, to understand the mechanisms of overcoming the disease, which will help to form the optimal level of psychological well-being of the elderly and, therefore, optimal aging, it is relevant to study the phenomenon of gerotranscendence in elderly people in conditions of severe somatic or life-threatening disease.

Keywords:

gerontology, gerotranscendence, oncology, stroke, heart attack.

According to official United Nations (UN) statistics, the world's population is steadily aging: the proportion of older people in the total population is increasing in almost all countries. In 2019, one in 11 people in the world is over 65 (9% of the total population). It is expected that by 2050, every 6th person on the planet will be over 65 years old, which will already make up 16% of the total population.

The problem of aging is acute, including in Russia. V.I. Skvortsova, former Minister of health of the Russian Federation, said that gerontology is one of the important areas of modern medicine, since life expectancy in the Russian Federation has increased by 7.7 years. The creation of such projects as "Active longevity" and "Older generation" once again proves her words. Scientific and technological progress has contributed to the creation of effective methods for extending human life. However, increasing life expectancy does not always correlate with maintaining and increasing its quality. The study of O.V. Belokon, aimed at studying the quality of older people life, showed that the problems of older people are not limited only to their material security [1]. According to the results of the study, the priority areas of development in gerontology are medicine, social institutions and psychological support. Thus, the quality of life of elderly people depends not only on their level of material security, but also on their health, social environment and psychological well-being [1].

According to the UN, older people are increasingly becoming important participants in the development processes in the world, which leads to the need for their high and effective functioning, which is inextricably linked to the optimal level of their quality of life. This explains the need to maintain not only the vital functions of older people at the necessary level, but also the formation of psychological well-being and an optimal standard of living.

It is also worth noting that old age is a special period of life that every person will have to face. This period is accompanied by negative phenomena, such as decreased physical activity, depression of mental functions, somatic diseases, and narrowing of the social contacts circle. Often, it is during old age that severe, life-threatening diseases occur. Due to the presence of negative components of the aging process, this age period causes tension, anxiety and fear in people.

Today, there are a large number of approaches to understanding the phenomenon of aging. All available approaches can be divided into 2 groups: biological and psychological (Table 1).

As can be seen from Table 1, gerontological theories mainly consider the aging process from only one side, relying either on biological or psychological consideration of the causes and processes of aging. Modern research on the psychological characteristics of aging is mainly devoted to the quality of life, the level of life satisfaction and the identification of factors that contribute to positive and successful aging. For example, in the article I.V. Shapovalenko notes the importance of combating existing myths about the aging process ("being old = being sick", "mandatory decline in intelligence", "no ability to support yourself", "inability to learn something new", etc.), and the need for social support for older people [2]. The maintenance or strengthening of existing myths, the lack of social support and support from the state lead to a decrease in the quality of life of older people, emotional disorders and deterioration of physical well-being, and a decrease in working capacity [2]. E.F. Nikolaeva noted in her study that the multifactorial nature of objective conditions in combination with subjective parameters due to both the personal characteristics of an elderly person and his life experience in general are sources of negative experiences of the quality of life [3]. This negative perception and assessment of the quality of life generates or exacerbates destructive states and affective disorders, the loss of existing values and the meaning of life [3]. O.S. Glazachev in his article notes that the quality of life of an elderly person is defined not only socio-economic factors, health, health care,

Table 1

Theoretical approaches to understanding the phenomenon of aging

Biological	Theories of programmed aging	Clock theory (L.Hayflick)	There is a fixed amount of cell division in the human body. As soon as the cells exhaust the possibilities of division – aging.
		Immune theory	The human immune system is programmed to work for a limited time. After that, the work of the immune system decreases, which leads to aging.
		Evolutionary theory	The body is initially programmed to conceive, bear and give birth to offspring. After performing these functions, the body becomes more vulnerable to the influence of external negative influences.
	Theories of stochastic biological aging	Theory of errors	Errors can occur in the body at the cellular level, which leads to the formation of defective cells. The older a person is, the more defective cells there are in the body.
		Speed of life theory	A person is born with a limited supply of vital energy. As soon as a person uses up all life energy – death.
		Theory of stress	Aging is the result of the body's exposure to stress. A large number of glucocorticoids that appear after stress leads to high blood pressure, cardiovascular diseases, and accelerates the aging process.
Psychological	Domestic theories	Adaptation and regulatory concept of V.V. Frolkis	Changes in the adaptive capacity of the body with age. Vitaukt is a process that helps to stabilize the vital activity of the human body, restoring disorders that are associated with aging.
		The concept of psychological vitaukt by O. N. Molchanova	With age, there is a decrease in the Self-value. However, with age, factors of compensation for negative traits (self-esteem, character traits, and self-attitude) are formed.
	Foreign theories	The concept of cognitive restructuring H. Thoma	Cognitive restructuring is manifested in a person's desire to adjust or revise personally significant goals and change the existing time prospects.
		E. Erickson, R. Peck, G. Sheehy	The authors considered the period of old age as a separate period, which is characterized by the need to adapt to the prevailing external and internal conditions. A person in this period is faced with the task of adapting to changing conditions of the external and internal environment, developing the necessary neoplasms and correcting existing psychological phenomena. The success of this process depends on the well-being of a person in this age period.
		Model of coping (J.Brandtstaedter, D.Ventura)	According to this theory, for optimal quality of life in old age, it is necessary to re-evaluate priorities and set more achievable goals.

and his independence from external assistance, external and internal resources, coping strategies, problem solving skills, which can help to overcome emerging difficulties [4].

In 1994, the American scientist L. Tornstam put forward a complex theory that considers the aging process from both biological and psychological points of view [5]. This theory is called gerotranscendence. Within the framework of this theory, aging is presented as a unique period that is fundamentally different from the period of adulthood. Gerotranscendence involves the transition to maturity and wisdom, the formation of a different reality, in contrast to the one that was formed in adulthood. From these positions, aging is no longer associated with oppression / decay / death, but becomes a new, special stage of human development. It should be noted that the theory of gerotranscendence considers a person at once on three levels: philosophical (understanding and perception of such phenomena as the world, time, death, life), at the level of the self (physical and mental self), and at the level of social and personal relationships (relationships with society).

Thus, today it is the theory of gerotranscendence that most fully reveals the features of such an age stage as old age. In Russia, gerotranscendence is a new area of research. O. Strizhitskaya conducted the first studies on the level of gerotranscendence in older people in Russia. Factors and conditions of positive aging were identified. These researches allowed us to identify the structure of gerotranscendence and create an author's questionnaire aimed at measuring the level of this phenomenon in three dimensions (philosophical, "I", social relations) [6].

However, the study of gerotranscendence and optimal aging was conducted only on samples of "conditionally healthy" elderly people, whose history did not indicate the presence of severe somatic diseases that threaten life or lead to disability. As noted earlier, the period of old age is characterized by the occurrence of such diseases, which, according to the biopsychosocial model, have an impact not only on the somatic level of patients, but also on the socio-psychological levels.

The UN website provides information about 10 somatic diseases that are the leading causes of death in the world. In the first place in this list are heart diseases (coronary heart disease), with a mortality rate of 9.5 million people per year. It is worth noting that over 16 years (from 2000 to 2016), the death rate from cardiovascular diseases increased by 2.5 million people. Stroke is the second most common cause of death, with 6 million deaths per year. Compared to 2000, the number of deaths increased by one million people. In the data published by the UN for 2018, diseases of the cardiovascular system (coronary heart disease, circulatory disorders, etc.) still remain in the first place in terms of mortality, representing 21.9% of deaths in the world.

According to the Ministry of health of the Russian Federation for 2019, the first place in mortality in Russia are diseases of the cardiovascular system (including heart attacks and strokes), which make up 47% of all deaths. In second place – malignant neoplasms with an indicator of 16.1%. Thus, in Russia, the most dangerous diseases that lead to death are cardiovascular and oncological pathologies.

According to statistics from the National medical research center for radiology of the Ministry of health, 617 thousand cases of cancer were detected in Russia in 2018, which is 20 thousand more than was detected in 2017. The total number of Russians registered with an oncologist is 3.63 million people, which is 2.5% of the total population. Modern statistical studies indicate that there are 3.45 million people diagnosed with cancer in European countries, most of whom (70%) are elderly. According to the world Health Organization (who), the number of cancer cases is increasing every year. In 2018 alone, 18 million people worldwide were diagnosed with cancer, 10.8 million of whom died, accounting for more than 50% of cases. According to who forecasts, the number of cancer cases will only increase every year.

According to researchers R. Freak-Poli, R. M. Saracino, S. Schroyen, and others, cancer causes a significant level of distress, decreased self-esteem, increased suicidal activity, and decreased quality of life and satisfaction with it [7-9]. It is worth noting that these psychological phenomena are also reduced in healthy elderly people. However, if they have a severe somatic disease, the decrease is several times faster. As noted earlier, cancer-related deaths occur in more than 50% of cases. According to the results of research T. Pudrovska, A.M. Napoles, and A.Y. Bergfeld, the perception of cancer as a fatal disease significantly worsens the quality of human life, which in turn affects the success of treatment and further functioning [10-12]. In the study of I.M. Shestopalova and G.A. Tkachenko, aimed at studying the personal reactions of cancer patients in old age, the authors noted violations of the emotional sphere. Elderly patients with cancer were found to have depressive symptoms (increasing in the postoperative period) and increased anxiety (decreasing after surgery). The leading psychopathological syndrome in the postoperative period was asthenodepressive and anxiety-depressive [13].

Acute cerebral circulatory disorders (ACCD) are the second most common cause of death in the Russian Federation. According to the Ministry of health of the Russian Federation, 428 thousand cases of cerebrovascular diseases were registered in 2017, which is 14 thousand more than in 2016. It is also worth noting that the number of strokes over the past 9 years has increased by 100 thousand cases. In the article by P.A. Machinsky, N.A. Plotnikova et al., it is noted that the mortality from ACCD in the elderly and senile age is 55% of all ACCD in the population of the Russian Federation. Over the past 9 years,

mortality from these diseases has significantly decreased (2008-259.3 thousand deaths from stroke; 2017-136.4 thousand deaths from strokes). Thus, the number of deaths from strokes decreased almost twice. However, according to the National Stroke Association (NSA), only 8% of patients who have had a stroke can return to their previous full life, while 31% of patients need special care and 20% cannot walk independently. The greatest risk of stroke is manifested in the patient's disability, violation or inability to perform their professional activities and their loss from social interaction. Most studies note the relationship between subjective complaints of patients after stroke (paralysis, difficulty concentrating, memory loss, speech disorders) and depression, which ultimately affects the quality of life of post-stroke patients [14-17]. The need for effective rehabilitation, the formation of psychological well-being and a harmonious perception of their disease are the main tasks of specialists. To form effective rehabilitation programs, it is necessary to understand the specifics of the psychological sphere functioning of post-stroke patients [18]. A.G. Zinelova also mentions the importance of complex rehabilitation effects on elderly post-stroke patients in her work.

In addition to stroke as a result of a vascular catastrophe, the highest mortality rate among diseases of the cardiovascular system is characterized by myocardial infarction (MI). According to V.I. Skvortsova, the death rate from myocardial infarction in Russia decreased by 7.3% in 2018. Over the past few years, the availability of modern high-tech treatment tactics has increased, allowing patients to survive their first heart attack. After a heart attack, patients have a large number of restrictions in both professional and daily activities, which leads to the need to restructure their lives. Narrowing the social circle, changing the status, changing the relationships of other people-all this can lead to a violation of the quality of life and psychological well-being. A large number of studies are devoted to emotional, physical and cognitive changes that occur in patients with heart attacks and CAD, especially in the elderly, which indicates the need for timely and comprehensive rehabilitation. The importance of an individual approach to rehabilitation work with elderly post-infarction patients is emphasized. In addition, there was a significant increase in life satisfaction indicators in elderly patients after undergoing rehabilitation in sanatorium conditions [19-21].

Thus, to date, there are very few comprehensive studies of the psychological characteristics of the response to the disease, self-perception and attitude toward life of older people in conditions of somatic diseases. Existing studies either consider "conditionally healthy" elderly people, or consider individual aspects of the course of somatic disease in older people, often without distinguishing them from groups of adult patients. Cognitive functions, emotional disorders, or the quality of life of older people are studied separately against the

background of a chronic disease or after a vascular catastrophe (heart attack, stroke), but the psychological resources of older people in the fight against the disease are ignored, in particular, changes in the value-semantic sphere and attitude to themselves, to life and their health, which could significantly shed light on their role in maintaining psychological well-being during aging. In our opinion, for a more complete understanding of the psychological mechanisms of optimal aging in people with somatic diseases, this phenomenon should be studied through the prism of gerotranscendence, considering all the changes that occur at this stage of the life cycle.

Conclusion

Old age is a special period of life that every person will have to face. This age period is characterized not only by changes in the somatic sphere (chronic diseases, cosmetic changes, injuries), but also changes in the social and psychological spheres. Existing gerontological theories mainly consider aging only from some sides. The complex perception of aging is presented in the theory of gerotranscendence, a new concept that considers old age as a special, new period of life, qualitatively different from the previous age periods of human ontogenetic development. For a more complete and comprehensive study of the aging process, to understand the mechanisms of overcoming the disease that will help maintain the optimal level of psychological well-being of older people and, consequently, optimal aging, it is relevant to study the phenomenon of gerotranscendence of older people in conditions of severe somatic or life-threatening disease.

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