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FEATURES OF DELAYED AGING IN THE POST-COVID WORLD. REVIEW OF STUDIES



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The coronavirus pandemic, the general uncertainty and variability of the post-pandemic world have challenged the already outdated concept of chronological age determination of the elderly. Along with the updating the previous age limits and the isolation of the elderly during the pandemic, the question has arisen how the age of the elderly will generally be determined in the world to come, and what key parameters will be important for this? In this review we consider researchers' viewpoints on the reasons of the possibility of delayed aging in Russia, analyzing the latest publications on social policy, sociology of aging, the role of information technology in the lives of older people and their employment, and using the method of thematic analysis. The key findings of the work show that the older people's individual understanding of their age, reflexivity and participatory social policy, the integration of older people into the sphere of information technology, within which this category of citizens builds their status, and also determines the opportunities for increasing motivation and choosing one or another direction of activity play the main role in the comprehension of the new concept of delayed aging. The review results indicate that at this stage, if the indicated directions are successfully developed, the concept of delayed aging can become one of the new options for understanding age, promote a paradigm shift and a gradual departure from the chronological and medicalized determinants of age, which are still the key ones in the social sciences.

Deferred aging, features of aging, age of the elderly, information technology in the lives of the elderly, social policy, post-Covid time.

Introduction

People's age is a non-linear and individually defined category that is becoming increasingly socially conditioned today. At the same time, age differences themselves and their chronological determination increasingly less often fix feelings and meanings of an individual's life stages and are actualized only in segregated and rigidly structured societies, the number of which is getting fewer and fewer (Smolkin, 2019). Cultural effects in the development of society, the population's demographic aging, as well as the growing number of able-bodied elderly people destabilized and practically nullified the established understanding of age within certain frameworks. Habitual canons, which were previously reduced to biological determinants and definitions of the categories of "elderly person", "old age" and "aging", are increasingly acquiring fluid boundaries or losing relevance altogether¹. Very important is the rejection of the chronological understanding of age and attempts to explain aging exclusively through the measurement of time. Such a refusal is not only characteristic of the social sciences, it is now coming to the natural sciences as well, where ageing is increasingly being understood as a socially determined category (Brubaker, Cooper, 2000; Katz, Marshall, 2004, p. 62). However, at this stage it is impossible to completely get rid of the biological determinants of age (Smolkin, 2019).

Many social policy ideas being developed today, such as the idea of active longevity, lead us to think about the usefulness of defining aging, old age, as a category if people can be as active and integrated in society during this period of time (Foster et al., 2001; Rowe et al., 2014; Higgs et al., 2017).

As noted by foreign and domestic researchers of aging and age, it is important to search for interdisciplinary interaction and work of several disciplines at once, including social policy, social work, sociology, economics and history, to determine the state of late age; to create a new, fundamentally different apparatus for research on age in general (Andrews, 1999; Kelas'ev et al., 2016; Grigoryeva, Bogdanova, 2020).

Critical gerontology (namely the critical approach to understanding age as an individual entity being developed in this discipline) today is more of a review and empirical work that lacks common concepts, a common core of theory building, practice-oriented comprehension of elderly age features (Wild et al., 2013; Doheny, Janes, 2021; Amundsen, 2022).

An important contribution to the search for new models of understanding age has been made by the pandemic situation, in particular by the development of general instability, which is actively present in the modern world and, consequently, creates problems in treating aging as biologically conditioned and structured exclusively by biological determinants and rigid chronology. However, studies devoted to uncertainty and the search for new criteria for determining age boundaries are more like reviews and do not claim to construct verifiable conceptual models of late age (Fischer et al., 2020; Costa et al., 2021; Ji et al., 2021).

In order to outline the conceptual framework of delayed aging, one should turn to the approaches that consider age, in particular to the "late adulthood" approach. The latter is defined by the fact that the specificity of the perception of age for late adults themselves is the resistance to socio-status transitions that condition aging through changes in age chronology (Facchini, Rampazi, 2009; Carr, 2019). The concept of late adulthood identified in the research papers is related to the fact that the continuation of middle-age adulthood creates a situation of postponing one's own aging, causes older adults to be reluctant to call themselves "old" or "aging", to accept their age, agreeing with the biomedical discourse set by a clear framework.

In this article, we examine the extent to which late adulthood and older people's postponement of their own aging are influenced by social policy, digital integration, and employment, based on an analysis of various publications. We review studies on this issue produced during, before, and after the pandemic in order to most comprehensively describe the emerging transformations in aging. To do this,

¹ Khrisanfova E.N. (1999). *Fundamentals of Gerontology (Anthropological Aspects)*. Moscow: VLADOS.

we use the concept of “delayed aging”, which is new to both domestic and foreign sociology.

The concept of delayed aging, which we developed on the basis of the theoretical idea of late adulthood, is a concept new to sociology, based primarily on subjective peculiarities of age perception. Analyzing the concept of delayed aging, we proceed from the assumption that people, while maintaining their socio-economic independence, continue their adulthood, which can be defined as extended adulthood (Greve, Staudinger, 2015). Consequently, aging, which in medical and biological discourses is explained as a time of dependence and as a time of needed help, becomes a delayed, displaced one (Westerhof, Tulle, 2007).

Scientific novelty of the concept of delayed aging is determined by the fact that sociological studies, as a rule, do not analyze peculiarities of late adulthood and this concept remains the prerogative of psychological sciences. We consider the concept of delayed aging from the sociological point of view. The fundamental significance of the research lies in the fact that on the basis of a number of works the author analyzes the key spheres of social relations, within which this concept is present, and outlines the prospects of a new author’s approach to the study of the positioning of elderly people of their age in the post-pandemic world.

The purpose of the study is to examine the concept of delayed aging in the context of transformations of socio-status transitions to aging and against the background of instability, variability of the post-COVID world.

Review methodology

To achieve the goal indicated in the article we used the method of thematic analysis of scientific articles. A total of 50 sources of Russian and foreign authors were analyzed. When forming the sample, the works were selected based on the following search criteria: the work should describe specific methods, techniques, practices and features of understanding age or social policy in relation to age; specificity of

considering various subjects in the life of older people; the sample should include works that use various research methods.

In this study, we not only analyze publications that appeared during and after the COVID-19 pandemic (they constitute a key pool of papers upon which the article is based), but we also consider papers that were published before the pandemic. Analysis of the articles shows that highlighting the intended transformations in conceptual approaches in the study of aging is impossible without considering changes in understanding the situation before the COVID-19 pandemic and identifying key trends in these changes. Consequently, these publications are also included in the analytical part of the study.

To work with texts, we used Braun and Clarke’s method of thematic analysis, adapted for qualitative descriptive research in sociology. The method made it possible to operate with different sources of different design. This is an advantage in terms of research orientation. During the analysis of the sources we managed to identify the following themes, within which the authors considered the problem of delayed aging and shifting age boundaries in the lives of older people:

- changing social policy and active longevity policies;
- integration of the elderly into new technologies, including information technology;
- continued employment of older people in the labor sphere.

Changing social policy in the context of delayed aging

The notion that the development of a sustainable social policy that adapts quickly to all transformations and challenges contributes to minimizing the effects created by the pandemic and to solving the various problems associated with the organization of care for the elderly becomes key in the period of the pandemic. An important factor in social policy adaptation is a change in the usual understanding of active longevity. As some authors note, it is the isolation and return to biological determinants, definitions

of age in general that set the specifics of the development of social policy for active longevity and the search for new opportunities, ways of activities for the elderly, which can be associated with the integration of this category of citizens into new information technology, ICT training (Grigoryeva, Bogdanova, 2020; Gardner et al., 2020; Morrow-Howell et al., 2020).

L.N. Ovcharova, O.V. Sinyavskaya, and coauthors emphasize that in an era of instability and global change, social policy must become more proactive and use the principles of evidence-based research results (Ovcharova et al., 2022). In other words, social policy must evolve with scientific research, and any changes must be supported by research evidence. Systematization and generalization of already accumulated experience, as well as critical reflection, possible on the basis of effectiveness research, the efficiency of the current policy in the social sphere are important (Grigoryeva, 2019; Lynch, 2020; Bulmer, 2021).

We can distinguish several main vectors of development in the works devoted to the transformation of social policy during the pandemic and the understanding of delayed aging within it. Thus, from the perspective of critical gerontology, social policy for the elderly should become more participatory during the pandemic, the elderly themselves should determine their needs and the necessary development of state support, develop non-state support, turning to various volunteer organizations and NPOs (Baum et al., 2006; Holstein, Minkler, 2007; Ziegler, Scharf, 2013; Parfenova, 2020). In other words, the older volunteers' own initiatives and their assistance should be taken into account in the design and development of social policy.

The second line of research is indicated by the works on the macro-context of social policy. Its key role is assigned to the stabilizing functions of social sphere development, as well as to the expansion of scientific research in the context of social policy implementation and rethinking the concept of active longevity, the transition to the understanding of age as spatially determined and, therefore, related

to the development of certain conditions (Galkin, 2021; Shimanovskaya, Sarychev, 2021; Galkin, 2022).

The common features of these two directions of social policy, as the authors of the research note, are a reflexive understanding of age; the denationalization of social policy of the development of local, local initiatives, which are implemented not according to the existing prescriptions and medical criteria for organizing social support for older people, but take into account the views regarding the age of the specific individual and the specifics of necessary support measures. In addition, an important basis for the development of new social policy is the transition from the usual understanding of age and aging as set by medical and biological discourse to the consideration of age and aging as created, set by the specific environment and the attitude of individuals, their understanding of their own age.

Thus, in social policy there is a new definition of age understanding, a non-determined one, which does not depend on any initially set criteria and is connected exclusively with the needs of the elderly themselves and their understanding of their modes of activity, integration into social life, as well as the development of territories in urban and rural areas.

Integrating older people into information technology

At the present stage, older people's activity and quality of life largely depend on their integration into the digital space, on their information and technological competence, access to digital technologies, financial capabilities to purchase necessary devices, smartphones and laptops, as well as the availability of the Internet (Grigoryeva et al., 2018; Rakhmatullina, Koroleva, 2019; Grigoryeva et al., 2016).

One of the important points preventing older people's integration into information technology is (according to the authors of numerous studies on older people's ICT mastery) the problem of digital gaps (Kiel, 2005; Datta et al., 2018; Mishori, Antono, 2020).

This problem is primarily related to the uneven distribution of resources and culture of older people's use of modern online technologies in different countries. For example, in Japan, robotic assistance for the elderly, that is, the use of robots and artificial intelligence as therapeutic assistance and support, assistants for the elderly, is quite actively developed. Such innovation certainly implies a high degree of integration of the elderly into modern technology, which is achieved, among other things, through mastering new technologies, through their active use for social services and communication, development of interaction skills in the elderly².

The modern researches devoted to integration of elderly people into the sphere of information technologies reflect the interrelation of elderly people's positioning of their age, status and possibilities, ability to use technologies of the Internet and online communication in their everyday life. M.H. Kilyashkanov notes that the social status is influenced by the adaptability (or lack thereof) of the elderly to the use of new technologies, which creates difficulties in understanding their age. Older people's lack of knowledge and ICT skills often becomes for them synonymous with the loss of connection with the social world and positioning their age as a time of isolation, a time of inaccessibility of modern technology (Kilyashkanov, 2018).

Thus, the various digital inequalities arising from regional and infrastructural development, as well as the training of older people in the use of new technologies, create rather weighty and serious problems with older people's sense of their age and labeling it as a time of activity.

The pandemic has only intensified the effect of the digital divide and the integration of older people into the sphere of information technology, as both Russian and foreign studies attest. Rural residents and those elderly people who rarely or never used Internet resources in their daily lives before the pandemic faced the greatest difficulties (Galkin, 2020; Milovanova, 2020; Galkin, 2022b; Litchfield et al., 2021).

Meanwhile, the pandemic period perfectly demonstrated the confusion of the return boundaries of older people in the development of information technology, which is primarily due to the fact that isolation and negative perception of their age by the elderly, its stigmatization depended on the ability to quickly master information technology, integrate into Internet communication, which, as many authors note, often is seen as the only "connection" with the social world during the period of limited mobility and offline communication, and also opened up another important perspective for the elderly, namely, opportunities for online volunteering and continuing employment, maintaining previous jobs or job counseling. Thus, qualifications and capabilities, the ability to learn digital skills quickly served as a mechanism for pushing back the issue of the elderly's age (Wu, 2020; Samuels et al., 2021; Yang et al., 2021). The pandemic showed that the elderly's digital literacy opened up access to important sources of information such as e-health, ordering groceries at home, and finding alternative medical information regarding coronavirus infection and its impact (Parfenova, Petukhova, 2022; Sixsmith et al., 2022).

Consequently, in the analyzed works on the ICT role, the older people's integration into information technology, as well as the features of delayed aging, the key conclusion is that the use of these technologies by the elderly allows postponing aging itself. The diversity of the virtual world in this case is an important factor that expands the possibilities of communication and receiving alternative information by older people, which, in turn, contributes to the fact that this category of citizens considers their age as a time of various changes associated, among other things, with online activity, the skills of which increase the status of an elderly person.

Summing up the consideration of the role of information technology, we should note that the creation of various services, as well as the ICT use by older people, contribute to their positive view of aging.

² Shirshov E.V. (2017). Information, education, didactics, history, methods and technology of education. Dictionary of key concepts and definitions. Moscow, 1-138.

Job placement and continued employment of the elderly

Socio-economic studies on the employment of the elderly show that the pandemic has had a serious impact on employment and has reformatted many trends in this area. It is low-skilled workers with no information technology experience and members of basic occupations who are most at risk (Bellotti et al., 2021; Sizova et al., 2022). Information deprivation has been the most significant blow to employment for various population groups, which, as the authors of the research note, is primarily related to the lack of employment opportunities and the translation of employment of older people into an online format, which has the greatest impact on this category of citizens' understanding of their age and its stigmatization, as well as the lack of prospects for continued employment (Sizova et al., 2022; Blažič, Blažič, 2020).

Older people's return to the labor market is a strategically important task, which is addressed by action plans within the framework of the active longevity concept. Employment between the ages of 55 and 74 is as an important controlled parameter of the Active Ageing Index (AAI) (Walker, Zaidi, 2019; Zaidi et al., 2018).

On the one hand, such measures represent an objective response to transformations in labor markets: as the researchers point out, work becomes easier, more comfortable physically and emotionally for older people. On the other hand, an important part of the older person's activities is increasingly associated with labor activity, and without the development of sustainable employment, continued employment and retraining it is impossible to imagine one of the main strategic objectives of the active longevity plan, namely the integration of older people into social relations, into society. An important strategic task is also a break, a shift in the usual patterns regarding the importance of older people's family involvement. As a consequence, employment makes it possible to destigmatize the very image of old age associated with family care and support, and to expand the boundaries of age. The pandemic disrupts the plans and

possibilities of this strategy, primarily because isolation and job cuts, including for the elderly, are becoming widespread, and the level of the elderly's computer literacy (mostly in developing countries) is insufficient to change employment formats and shift to online employment.

Thus, the elderly's positioning as active agents integrated into labor markets, retrained and changing styles and characteristics of employment is transformed and becomes again similar to the provisions of previous strategies of returning the elderly to family care, positioning old age as a time of retirement and a time free from work. A significant contribution to the study of elderly employment during the pandemic is made by I.L. Sizova, I.A. Grigoryeva, Z.H. Saraliev, aimed at studying intergenerational interactions, the specifics of employment transformation of older people during the peak of COVID-19 epidemic process, as well as identifying the impact of pension reform on the employment of older people (Grigorieva et al, 2018; Grigoryeva, Sizova, 2018; Saraliev, Yermilova, 2019; Sizova, Orlova, 2021). One of their main conclusions is about the development of age discrimination, which intensifies during the pandemic and, consequently, has an impact on older people's conceptualization of their age. The problem of discrimination against older people during the pandemic begins to intensify due to problems with access to information technology and computer skills, which in general aggravates the problem of ageism (Kudryavtseva, 2012). As noted by researchers, this is due to the fall in demand for labor, which is typical for the pandemic period, and also due to the bankruptcy and closure of many businesses that have been unable to adapt to the market and work in the new environment (Kozina, Zangieva, 2018; Shestakova et al., 2016). In this case, it is the elderly who may get laid off due to their lack of the necessary conditions and opportunities to move to remote employment, change lifestyles, and retrain. The authors also note the presence of a serious gender gap in the elderly's employment. Thus, the desire to continue employment, retrain and acquire

another profession was mostly expressed by women, while men were more inclined to retire and position this time as time out of work (the exception was male employment in large cities) (Yelyutina, Klimova, 2018; Agranovich, 2019; Schmunk, Giltman, 2021).

In analyzing older people's integration into the labor market, researchers note the importance of the problem of orienting modern economic development toward innovation, which subsequently creates problems with the realization of their potential. This is mainly due to the fact that the focus of the modern labor market on innovative technologies, rather than on tradition, leads to the hiring of younger employees, rather than older workers. Also, an important problem is soft skills, which are mostly developed in younger workers (older workers tend to have more hard skills) (Hendarman, Tjakraatmadja, 2012). We should note that depreciation of resources, which is typical for older people, is caused by the fact that accumulation of resources is usually specific to young workers, and, consequently, resource development is the prerogative of young workers (Sizova, Orlova, 2021). With age comes the loss of previously accumulated resources, which has a negative impact on employers' desire to hire older workers, because their training and retraining are usually difficult and do not contribute to improving the work process, the acquisition of new skills by employees. The authors note the existing contradictions both in the content of the labor potential of older people, and their position in the employment system. First of all, these contradictions are associated with doubts among employers about the full potential of the elderly (Markeeva, Kolodeznikova, 2022; Chernykh et al., 2022). Another problem is the lack of understanding of age as a specific and given, constructable characteristic. Most employers today tend to view the age of the elderly in the context of the abilities of younger generations and do not take into account the need for specific scales to assess the competence of the elderly, to use the potential of this category of citizens in the context of retraining and create new

opportunities for them when integrating into labor markets.

In addition, researchers note the multiple stereotypes, characteristic mainly for Russian employers. These stereotypes are due to stigmatization and lack of understanding of older people as potential employees. In connection with this, numerous clichés are developing, mostly related to retirement age and the understanding of retirement time as the time of loss of ability to work and, consequently, the end of a person's employment activity (Otkidach, Larin, 2021; Sizova, Orlova, 2021). The elderly's lack of interest in employment is also an important factor. Research shows that many older people consider income to be the only motivating factor and tend to retire when the importance of earning income ceases to be a priority (Kyazimov, 2018; Sizova et al., 2022). As a result of the pension reform, the number of older people who continue their employment is increasing, but older workers are becoming a predominantly new force, a particular strain on the labor market, whose potential needs to be studied in detail. Today there are relatively few studies on older workers in Russia. At the same time, the pandemic situation, crisis retraining and the transition to digitalization set a special context in understanding how the age of older people is positioned on the basis of labor relations.

Most of the authors whose works we are reviewing note that it is the creation of individual comfortable conditions and an environment (in addition to financial) that motivates older people to continue to be employed that becomes important. At the same time, the financial specificity itself is not considered by older people as a factor influencing the understanding of their age as a special state, independent of the chronological framework. By contrast, factors such as uncertainty, the need to move toward digitalization of employment, and interest and motivation to work contribute to older people's positive perception of their age as a time of opportunity, which sets the context for delayed aging.

Conclusion and discussion

The pandemic and the corona-crisis it caused have restored the existing boundaries of age determination. In a matter of weeks, chronological age became more tangible, the isolation within the walls of apartments and private houses, within a neighborhood or a garden plot played its part. However, following the revival of age boundaries and a return to biologized interpretations of age, new ideas emerged. In particular, the most striking was the idea of a change in research strategies in relation to age and the understanding of aging as a new category. There have been various studies devoted to the problems of age and consideration of various concepts regarding the rejection of its biologized and chronological parameters. A critical revision of existing approaches and concepts, a constant search for a category that could best describe human age as a social essence – these are the issues that the COVID-19 pandemic has certainly exposed.

Beginning the review, we posed the question to what extent age as a non-linear concept can be tied to a chronological framework at all and how, in this situation, the concept of delayed aging (or late adulthood) can become a new social category describing and defining age of the elderly and its individual meanings. Summarizing the review, we can argue that, based on the research conducted in Russia, the features of late adulthood should be considered as one of the concepts that can serve as a new milestone in the understanding of aging as a category related to the inclusion of older people's external investments in the project of their own age. The key points when considering the concept of delayed aging are as follows: reflexivity; participation; individual meanings of age; older people's role in the information environment; successful integration into the information environment.

In the course of our analysis, we derived the key themes within which the authors described the emergence and prospects of development of the delayed aging concept. Thus, within the theme of new social policy, participation and

participatory social policy, as well as reflexivity and focus on various initiatives, such as aging in place, where older people model the help they need and position age as a time to support and simultaneously participate in various volunteer initiatives and long-term care system (LTC) are important directions. The second theme identified in the review is older people's integration into information technology. The mastery of information technology by older people is of no small importance, which affects the development of their status as well as their habitus. In general, the use of the Internet becomes one of the central categories in the study of delayed aging, which creates opportunities for older people to rethink their age, use alternative sources of knowledge, read specialized literature, consider medical issues and the use of certain online services, online employment and increased employment opportunities.

The third theme is the elderly's continued employment. The key role here is given to creating motivation for older people to retrain, as well as organizing special programs for employment and finding suitable jobs, and overcoming stigma. In other words, it is believed that a pensioner should not work and develop within their career.

Thus, based on the topics identified during the review, we should conclude that delayed aging, or late adulthood, as a new concept is primarily associated with the expansion of forms of older people's participation in social life, with the mastery of new technologies (from information to employment technology) and new professions, which allows us to consider age as created within a specific moment in time, and levels out older people's chronological motives of referring themselves to old age. In general, at this stage, empirical and theoretical work on the development of the delayed aging concept has just begun, but this concept and its empirical confirmation, which is now found in research, can become promising, one of the most powerful arguments for abolishing biologized and chronologically defined models of age, which do not lose their relevance in the social sciences.

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