The impact of medical and social rehabilitation on the adaptation of the elderly to modern social and legal processes

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ABSTRACT

The article is devoted to the peculiarities of the process of medical and social rehabilitation of the elderly, which an increasing number of people of this age category requires. The paper examines the main causes and problems in the lives of the elderly, leading to their loss of physical and social activity, and subsequently to social isolation and misadaption of representatives of the specified age category. The article explores the relationship between the medical and social rehabilitation of the elderly and their participation in social and legal processes. The results of the most highly-publicized studies of scientists from different countries of the world concerning the problems of medical and social rehabilitation of the elderly and the importance of this process for society have been analyzed. Recommendations on the introduction of effective technologies of medical and social rehabilitation of the elderly, their impact on social and legal processes have been proposed.



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1. INTRODUCTION

In most countries of the world, the number of elderly people increases compared to other categories of the population, which leads to various social transformations and changes due to the redistribution of social roles. Therefore, today we see a social paradox, which is that the scope of social roles of the elderly is

expanding, and on the other hand, they can not fully realize them due to reduced levels of physical and social activity. This trend is typical for most countries of the world. In the case of further progression of this phenomenon, humanity risks entering a state of stagnation and social anomie, when the passivity of the largest categories of the population will lead to total social regression. This regression of social relations will consist in the social isolation of certain groups of the population, which will lead to unpredictable manifestations of destructive behavior at both the individual and group levels. One of the options to solve this problem of the elderly is medical and social rehabilitation as the largest number of people of this age category. The use of individual technologies of medical and social rehabilitation will facilitate the integration of the elderly into current social processes through improving health and mastering social and cultural norms relevant for modern society, where individuals of the elderly and the global community operate The use of medical and social rehabilitation at both the local and global levels requires legal regulation and support. That is why the definition and updating of legal regulation plays an important role in the application of medical and social rehabilitation technologies in working with the elderly.

2. Methodological framework

The methodological basis of the article is the results of studies of the influence of insufficient physical activity of the elderly on their social activity within the framework of social and legal processes [2], [4], [5], [8] and socially negative processes that are stimulated by low levels of social activity in society [15] and research on the introduction of technologies of medical and social rehabilitation of the elderly [5], [7], [9], [10], [12].

3. The purpose of the study

To find out the peculiarities of the impact of medical and social rehabilitation on the adaptation of the elderly to modern social and legal processes.

4. Results

The importance of rehabilitation practices in modern society is difficult to overestimate, since in the 21st century more and more representatives of different social groups need rehabilitation. Today, the most popular forms of rehabilitation are medical, physical, social and psychological. Persons requiring rehabilitation can differentiate by age, gender and forms of nosology. In the framework of our study, we are interested in all these factors, but age is the most important. The concept of old age has both a physiological and psychological aspects. The physiological aspect of old age is investigated by many scientists in different countries of the world, but these studies do not affect the institutionalization of this concept. Today, the age range of old age in most countries of the world is determined within the framework of pension legislation. Depending on the country, today the pension legislation applies to people from 55 to 75 years with a steady trend with a shift of the retirement age to the age range from 65 to 75 years [1]. These age range can be considered as the age limit after which it is difficult for a person to perform professional duties and he / she gets the opportunity to compensate for lost income from employment through pension benefits. Therefore, retirement age in most countries of the world plays the role of determining old age according to socio- economic criteria. That is, a person reaching the specified age receives certain social and economic preferences, but is gradually excluded from the active phase of socio-economic relations. At the same time, the Study by Clara W. Berridge and Marty Martinson [2, pp 83-85] shows that today the age range of old age is expanding due to the transformations of social perception of people who at the end of the twentieth century considered the age limit of old age at 50 years, and today it has shifted to 20 years and today equals 70 years. Extrapolating this example to youth, it can be stated that there have been similar changes in age perception of other age categories as the scope of youth has expanded from 30 years towards 35-40 years.



These changes of the age range in social perception have caused the fact that physically and psychologically older people find it difficult to meet the social demand and this leads to a deterioration in psychological well-being and behavioral disorders. The study by George S Alexopoulos suggests that depression accompanies the elderly with chronic diseases. Depression leads to disability, conflicts in the family, which often lead to divorce. In addition, the depressed state of the elderly can lead to premature death [3]. As you can see, we can conclude that the rehabilitation of the elderly has a socio therapeutic function and should be complex combining elements of medical, physical, social and psychological rehabilitation. The hypothesis of rehabilitation complexity is confirmed by the research of a group of scientists led by R. J. Petrella, which was held for 12 months at one of the Canadian geriatric clinics among clients diagnosed with a hip fracture. The results of the study showed that medical rehabilitation contributed to the restoration of both physical functions and improved the psychological state, as evidenced by high rates on the scale of vitality of persons undergoing rehabilitation. This effect is achieved due to the fact that the cause of the hip fracture among the patients who were studied was a fall and therefore in the process of rehabilitation they felt fear of new falls and therefore those patients whose individual rehabilitation program included psychological support had the greatest benefit from rehabilitation [4]. That is, the results of this study confirm that the combination of technologies of medical and socio-psychological rehabilitation is an important element of the individual rehabilitation program of the elderly. According to Walter R. Frontera, a scientist from Puerto Rico, the level of physical activity in old age is an important factor in the functionality of the individual and is the prevention of cardiovascular, certain types of cancer and mental diseases [5]. Moreover, physical activity is also a factor in successful functioning within society. Therefore, increasing physical activity is a technology of social rehabilitation of the elderly and is actively used in rehabilitation work with this category of the population.

A Study by a group of scientists led by Brawner CA. affirms the positive role of physical activity for the elderly. The said team of scientists from Henry Ford Hospital and the University of North Florida conducted their own study, which proved that people with high and medium levels of physical activity have fewer chronic diseases [6]. These findings suggest, however, that physical activity should be used both in the prevention of common chronic diseases and in the process of medical rehabilitation. This especially concerns the elderly, who, because of age, have a greater predisposition both for the occurrence of chronic diseases and have risks of their more complex course than representatives of other age groups. In recent decades, one of the most common diseases from which the elderly suffer is hypertension. More than half of this category of population suffers from this disease. This disease increases the risk of stroke and causes significant discomfort in the lives of the elderly. Due to this disease, they lose a significant part of their physical activity, which causes the need to complete a professional career and devote less time to social activities and active leisure. According to the team of Ukrainian scientists led by L. Matviyets, medical rehabilitation of elderly people suffering from hypertension should be carried out for a long time and under the supervision of a family doctor. According to the researchers, the exacerbation of hypertension among the elderly occurs in connection with psycho-emotional experiences to which, due to old age, the body has much less mechanisms for resisting physiological processes caused by the consequences of emotional changes. This group of scientists proposed and tested their own program of medical and psychological support for the elderly, serviced by the family doctor [7]. Medical and psychological support of the elderly with a predisposition to hypertension can be applied in the practice of family doctors in many countries of the world.

The concept of the level of physical activity of the elderly is an abstract concept without empirical research. Therefore, a study conducted in Peru by a group of scientists led by Christian R showed that 68% of the elderly do not have physical activity, and a decrease in physical activity is a direct consequence of chronic

diseases of the cardiovascular system and other organs [8]. In this case, it can be stated that reducing physical activity contributes to weight gain, which contributes to the accumulation of the number of diseases of the internal organs. All these reasons automatically reduce the socio-legal activity of the elderly, who are disintegrated within the society where they function. As a result, they lose their quality of life, their level of social comfort and satisfaction with their own lives decreases. That is why in most countries of the world the problems of protection of the rights and freedoms of the elderly become urgent. This is especially true in developing countries, where there is no system of adequate social protection for certain groups of the population, including the elderly. Often this state of affairs is due to the lack of appropriate traditions of social support and respect for the elderly. A country where respect for the elderly is an undeniable and state and social priority is Japan. In addition, the peculiarity of this country is the high level of technological development and integration of innovative technologies into social and legal processes. That is why Japanese scientists Masahiro Shiomi, Takamasa Iio, Koji Kamei, Chandraprakash Sharma, Norihiro Hagita were among the first to update the use of robots in the framework of medical rehabilitation of the elderly, in particular for the implementation of their care [9]. Today, Japan, along with Italy, Germany and the United States, are leaders in this field. Today, the use of robots in the framework of medical and social rehabilitation of the elderly and people with disabilities is an urgent biotic problem, but the expansion of this area is due to both technological progress and social transformations. Robotics and devices that work using artificial intelligence are rapidly integrated into all spheres of social existence.

The impetus for the active use of robots in the process of both medical and social rehabilitation will be the intensification of these mechanisms use in medicine in general. Thus in 2013, Japanese scientists Tanaka H, Yoshikawa M, Oyama E, Wakita Y, Matsumoto Y. conducted research on standardization and commercial availability of robots and other auxiliary mechanisms in the field of medical rehabilitation of the elderly [10]. Until now, the availability of such devices and facilities is not great even in the developed countries of the world and in the future we can observe the actualization of a new form of social inequality, which will be the lack of equal access to the use of robots in the rehabilitation process. And this, in turn, can lead to inequality in the field of restoration of physical and social activity of the elderly and their institutional capacity to participate and influence the important social and socio-legal processes of their own country. The problem of standardization of robots and related means within the framework of both medicine and the field of medical and social rehabilitation still remains relevant. Since in different countries of the world there are a certain number of developments of robots and related mechanisms that have been tested, and some of them are even actively used in the framework of medical and rehabilitation processes. At the same time, due to the fact that the use of these devices is limited and they are used mostly within individual countries and do not have a global distribution, it is difficult to compare them and even plan their use at the national and global levels. The use of these devices should be regulated by the relevant regulatory framework both at the level of individual countries and at the interstate level. Therefore, today this regulation is one of the main promising problems of medical law in most countries of the world and developments in this area should be carried out at the international level in order to avoid significant regulatory and technical differences in the future.

Social rehabilitation of the elderly contains at its core the technology of harmonious interaction with social institutions, which should help the elderly to realize as much as possible both in society and within certain processes of social dynamics. Social rehabilitation in the information society contains a significant component of the assimilation of socio-cultural norms, which are based on the use of digital tools for interaction between different people and between a person and a group of people and a social institution. According to the Ukrainian scientist N.Golova, social rehabilitation of the elderly can be reduced to their adaptation to the conditions of modern society by socialization [11]. The process of socialization in



sociology and pedagogy is usually considered mainly in the context of the development of sociocultural norms dominating in society at the present stage of its development by children and adolescents. Although socialization is a dynamic and comprehensive process that never stops. Therefore, technologies of socialization of the elderly to the conditions of modern society are relevant and can be considered in the context of social rehabilitation. This is due to the fact that the last two decades have been marked by significant social transformations caused by new information technologies whose penetration into the life of the elderly was much less than in the lives of people of other ages. This is especially true in developing countries, where the elderly is discriminated against due to the inability to use social innovations due to low levels of wealth. All these factors are exacerbated by restrictions on functional and physical activity of the elderly. Therefore, technologies of social rehabilitation of the elderly should be considered in combination with technologies of medical, physical and psychological rehabilitation. The search for relevant and effective technologies of social and physical rehabilitation is constantly taking place. This process involves the best theorists and practitioners in the field of rehabilitation technologies. Today, the vector of development of rehabilitation technologies has shifted towards combining the best samples of various areas of rehabilitation. One of these technologies is garden therapy, based on the rehabilitation properties of plants [12]. In the case of rehabilitation work with the elderly, this technology makes it possible to obtain physiotherapeutic and ergotherapeutic effects from individual and collective work during plant care. At the same time, garden therapy technologies contribute to the social rehabilitation of the elderly. Today, within the framework of social work, it is customary to consider environmental methods including garden therapy, as an element of socialization. Since the elderly were mostly brought up and spent an active part in the paradigm of using plants as a form of food, growing plants was perceived as a difficult way to grow food. By reaching old age, they can look at caring for plants from a different angle and get positive rehabilitation effects.

The urgency of the problem of providing medical and social services to the elderly became relevant during the COVID-19 pandemic. Studies by European [13] and Saudi scientists [14] have shown that the COVID-19 pandemic has significantly increased the number of behavioral disorders. Although such studies have not been conducted among the elderly, but extrapolating the results of studies conducted in different parts of the Eurasian continent, it can be stated that the urgency of this problem is relevant for this population. Therefore, the elderly need additional medical and social rehabilitation in all countries of the world. In the case when the elderly will not receive medical and social services to the extent they need the society in which they live, there is a danger of the phenomenon of social anomie. This phenomenon of functioning society leads to social regression [15]. It is imperative to combat such manifestations in a comprehensive manner, and of course, do not forget about anti-corruption educational activities in healthcare institutions, since corruption in medical institutions is a significant factor in preventing older people from accessing medical and rehabilitation services, which provided for budget funding [16, p. 213].

Social anomie is derived from a general decrease in social activity of the population. Due to the fact that in most countries of the world the share of the elderly increases, and representatives of this social category reduce both the level of physical and social activity. Consequently, the elderly are less represented in political, financial, legal and cultural institutions, which means a lack of protection of their rights. As a result of all the above, mechanisms of social anomie are triggered. At one time, almost all countries introduced national pension systems, which should become the main tool to ensure social standards of life of the elderly. At that time, an important element of these guarantees was the restriction of socio-economic activity of the elderly. Today, this situation looks discriminatory, as today in the information age there are many tools that allow older people in active social activity to be maximally involved in all social and legal processes at the national and international levels.

In our opinion, in order to strengthen positive changes in the field of intensification of social activity of the elderly, it is possible due to the maximum access of this categories of the population to medical and social rehabilitation. Medical and physical rehabilitation of the elderly should take place both in specialized geriatric clinics and with the help of family doctors at home. Public and charitable organizations with the support of local authorities should contribute to the implementation of programs for the socialization of the elderly, including using both traditional and environmental technologies. State quotas in state and local authorities should be created for the elderly. You can consider mechanisms for creating community councils from the elderly to monitor and regulate important social processes, and even create quotas for the elderly in political parties. But all this will be useless and not effective without coordination and increase of funds for medical and social rehabilitation of the elderly and the creation of national and regional programs in this direction.

5. CONCLUSION

Medical and social rehabilitation of the elderly is a necessary process of integration of representatives of this category of population into social and legal processes that are at the forefront of functioning society. Cultural traditions and social stereotypes have shaped the lifestyle of the elderly in which there is no place for physical and social activity. The low level of physical and social activity of the elderly produces significant health problems and exclusion from active influence on social and legal processes and consequently, the violation of their rights and reduction of living standards and social comfort. This problem became especially exacerbated during the coronavirus pandemic, which only strengthened the trends, the processes of social anomie and other manifestations of social regression indicated by us. The response to these negative phenomena should be to provide maximum access to medical and social rehabilitation for the elderly both within geriatric clinics, rehabilitation centers and other institutions of the appropriate profile. To increase the role of the elderly within society and stimulate their social activity they should use the services of medical and social rehabilitation.

6. REFERENCES

- [1] Picus R.V. Reforming pension systems in foreign countries: experience for Ukraine. Financial services. No2, 2017. 6-9.
- [2] By Clara W. Berridge and Marty Martinson. Valuing Old Age Without Leveraging Ableism. Volume 41, Issue 4 (Winter 2017–2018). 83-91.
- [3] George S Alexopoulos. Depression in the elderly. Lancet. 2005 Jun 4-10;365(9475):1961-70. doi: 10.1016/S0140-6736(05)66665-2.
- [4] Petrella, Robert J., MD, PhD; Payne, Michael, MSc; Myers, Anita, PhD; Overend, Tom, PhD; Chesworth, Bert, PhD. Physical Function and Fear of Falling After Hip Fracture Rehabilitation in the Elderly. American Journal of Physical Medicine & Rehabilitation: March-April 2000. Volume 79 Issue 2 .154-160
- [5] Walter R. Frontera. Physical Activity and Rehabilitation in Elderly. Rehabilitation Medicine for Elderly Patients. January 2018. 3-13. DOI:10.1007/978-3-319-57406-6 1
- [6] Brawner C. A, Churilla J. R, Keteyian S. J. (2016) Prevalence of physical activity is lower among individuals with chronic disease. Med Sci Sports Exerc. 2016 June. 48 (6):1062–1067.



- [7] Matviets L. G., Lerman N. G., Galchanska G.Yu. Medical rehabilitation of elderly and senile patients with hypertension in the practice of a family doctor. Family Medicine. №4 (48), 2013. 169.
- [8] Christian R. Mejia, Araseli Verastegui-Díaz, Dante M. Quiñones-Laveriano, Germán Aranzabal-Alegría y Virgilio E. Failoc-Rojas. Actividad física y su asociación con enfermedades crónicas en ancianos de 11 ciudades del Perú. Gac Med Mex 2017; 153 (4). 482-487.
- [9] Masahiro Shiomi, Takamasa Iio, Koji Kamei, Chandraprakash Sharma, Norihiro Hagita. Effectiveness of Social Behaviors for Autonomous Wheelchair Robot to Support Elderly People in Japan. Plos one. May 20, 2015. https://doi.org/10.1371/journal.pone.0128031
- [10] Tanaka H, Yoshikawa M, Oyama E, Wakita Y, Matsumoto Y. Development of Assistive Robots Using International Classification of Functioning, Disability, and Health: Concept, Applications, and Issues. Journal of Robotics. Volume 2013, 2013. https://doi.org/10.1155/2013/608191
- [11] Golova N. I. Ensuring favorable adaptation of the elderly to the new conditions of socialization. Collection of scientific works of the Khmelnytsky Institute of Social Technologies of the University "Ukraine". 2011. № 4. 19-22.
- [12] Mosaiev Yu. Theoretical bases of development of garden therapy in Ukraine. Current problems of orthopedics, orthopsychology, and rehabilitation. October 4-5, 2019. Zaporizhzhia: Khortytsia National Academy Publishing House. 65–67.
- [13] Mykhailo A. Anishchenko, Hordiienko Nataliia, Popovych Vasyl, Iliashko Oleksandr, ShemchukViktor (2021). Protection of constitutional rights and freedoms of citizens of European states in the context of overcoming the socio-psychological problems of the COVID-19 pandemic with the use of medical and social technologies. Teikyo medical journal. Volume 44, Issue 02, February, 2021. 733-740.
- [14] Abdullah Almulhim, Mohammed Albarqi, Abdullah Almaqhawi, Abdul Sattar khan, Sayed Ibrahim, Jamal Aljamal, Alaa Alkhars, Hany S. Elbarbary. Teikyo medical journal. Volume 44, Issue 03, June, 2021. 747-755.
- [15] Jón Gunnar Bernburg (2002). Anomie, Social Change and Crime. A Theoretical Examination of Institutional Anomie Theory. The British Journal of Criminology, Volume 42, Issue 4, 1 September 2002. 729–742.
- [16] Anishchenko M. A. Anti-corruption management in the health care system: the legal aspect. Current issues in pharmacy and medicine: since and practice. Volume 12, Issue 2 (30), May-August 2019. 209-214.