

Prospects for the Development of Natural Therapy as a Complex Rehabilitation Technology

Ellina G. Pozdniakova-Kyrbiatieva, Yurii Volodymyrovych Mosaiev,
Yuliia Siliavina, Lilia A. Zhuzha and Oksana Valentynivna Kobets*

Abstract: The concept of natural therapy is a product of the evolution of social work theories. The ecological model of social work was formed in the 60s of the twentieth century and assumed the inclusion of an ecological context in the social sphere and social work as a practical activity. In the 21st century, environmental methods of social work have changed the focus and social rehabilitation has become a priority using such environmental technologies as animal therapy, garden therapy, agrotherapy, aesthetic therapy, and so on. The article examines the Ukrainian national experience in the development of social and physical rehabilitation of various categories of the population using environmental technologies. One of the main features of the formation of national experience in the implementation of the concept of natural therapy is that today the use of its components is at the initial level. The technologies for animal-assisted therapy are somewhat better developed in comparison with agrotherapy and garden therapy. The combination of these technologies into a single rehabilitation complex makes it possible to use the advantages of each of these technologies (animal therapy, agrotherapy and garden therapy) to achieve the maximum rehabilitation effect for each client, which requires social and physical rehabilitation.

Keywords: natural therapy, agricultural therapy, garden therapy, social rehabilitation, physical rehabilitation, social work, landscape gardening, ecological technologies of social work

INTRODUCTION

The end of the 20th century and the beginning of the 21st century were marked by a massive interest in ecology. This process was due to a large number of negative technogenic influences, which led to the

* Ellina G. Pozdniakova-Kyrbiatieva; Yurii Volodymyrovych Mosaiev; Yuliia Siliavina; Lilia A. Zhuzha; Oksana Valentynivna Kobets (✉)
Municipal Institution of Higher Education "Khortytsia National Educational and Rehabilitation Academy", Zaporizhzhia, Ukraine
e-mail: amakpu@ukr.net (corresponding author)

Ellina G. Pozdniakova-Kyrbiatieva, Yurii Volodymyrovych Mosaiev,
Yuliia Siliavina, Lilia A. Zhuzha and Oksana Valentynivna Kobets

destruction of a large number of flora and fauna. The number of patients with oncological diseases increased tenfold. An increasing number of patients with seasonal allergies are diagnosed. Moreover, other diseases are directly related to the deterioration of the ecological situation in most countries of the world.

Technologies, aimed at greening not only industrial, but also at social processes, have been developed within the framework of most social institutions. Currently, discussions about further increasing greening are taking place in all spheres of public activity in all European countries and in many other countries. The topic of ecology is especially relevant for Ukraine. Since the country is still one of the European leaders in terms of harmful emissions, regardless of today de-industrial processes. On the other hand, Ukraine is a state that has experienced the largest disaster in the history of mankind. It is the accident at the Chernobyl nuclear power plant. Therefore, the Ukrainian social way to reform and prosperity depends, at least, on raising its level of environmental friendliness and creating of multifunctional social and ecological systems within the framework of specific social institutions. One of the most important institutions of modern society is the institution of rehabilitation.

The relevance of rehabilitation services in modern society is constantly increasing. At the same time, the importance of the rehabilitation process for different groups of patients is different. For one category, rehabilitation is a matter of physical survival, and for others only a way to harmonize relations with the outside world. Children with disabilities, the elderly, veterans of military conflicts, people with mental illness and other categories of the population can be distinguished among them. Rehabilitation of the designated categories of the population is one of the most important social priorities of modern society. Otherwise, representatives of the designated categories of the population will not be able to fully function without high-quality rehabilitation within the framework of modern society. We believe that the process of social rehabilitation should comply with modern environmental principles as much as possible and perform the function of secondary socialization. That is why we propose to carry out social and physical rehabilitation through the active use of ecological methods of social work, physical therapy, occupational therapy and psychology. "Natural therapy" is a promising complex of rehabilitation technologies of the ecological direction. In our opinion, garden therapy is the main one in this complex. Since

“natural therapy” is primarily the interaction of a person and a plant. The method of animal therapy is equivalent, where attention is focused on the interaction of a person and an animal (dolphin, horse, dog, bee and others). Auxiliary within the framework of this complex are the methods of agrotherapy and aesthetic therapy.

The purpose of this study is to describe the prospects for the introduction of an innovative rehabilitation complex of natural therapy in the process of rehabilitation of individuals of different sex and age who need social, physical and psychological rehabilitation.

THE “NATURAL THERAPY”

Despite the innovativeness of the «natural therapy» complex, its constituent elements have a long history. After a person domesticated a whole group of various wild animals, he actively interacted with them not only as part of economic activities, but also used them as part of the treatment of chronic diseases and various relaxing practices. As the interaction between man and animal increased, new forms of interaction appeared, which today we call the sociotherapeutic effect that is used in the framework of social and psychological rehabilitation. Today, the totality of such rehabilitation practices in order to obtain rehabilitation effects is commonly called animal therapy. However, in general, the knowledge obtained as a result of observing this process was transmitted one by one. Animal therapy became a part of alternative medicine. The situation is very similar with the use of plants for medicinal purposes. And the healing properties have been and are used in folk and evidence-based medicine. The plant is actively used in pharmacology, but over the past few decades, plants have been increasingly used in various types of rehabilitation. Today, the rehabilitation interaction of a person and a plant is actively used in horticultural therapy, garden therapy, agrotherapy for the rehabilitation of people who, based on their diagnosis, need rehabilitation.

Today, animal-assisted therapy is actively used in various rehabilitation and leisure centers, schools, activities of public organizations in working with different groups of clients. However, there are not so many methodological materials regulating this format of social and physical rehabilitation. Japan and other Asian states are the leaders in the field of animal-assisted therapy. Important authors have played a significant role in the systematization of effective animal therapy practices within the framework of social, physical and medical

Ellina G. Pozdniakova-Kyrbiatieva, Yurii Volodymyrovych Mosaiev,
Yuliia Siliavina, Lilia A. Zhuzha and Oksana Valentynivna Kobets

and social rehabilitation of different groups of patients (See Kamioka et al. 2014). A similar theory was developed by the Bulgarian scientist Nichole M. Budahn (2013), emphasizing the use of animal-assisted therapy in the framework of social work and psychology. This particular model, in our opinion, is one of the leading directions within the framework of the concept of "natural therapy". Since that time animal-assisted therapy has outgrown the level of physical rehabilitation, where it was originally used. Presently, there are all the prerequisites for the comprehensive use of animal-assisted therapy in the field of not only social rehabilitation, but also within the framework of other areas of social work and psychology.

In 2010, a team of authors, led by Cynthia K. Chandler and Torey L. Portrie-Bethke, introduced their theory of animal therapy to the scientific community in combination with counseling for people with social rehabilitation need. The designated group of authors focused on the therapy and rehabilitation of clients with mental disorders (Chandler et al. 2010). In general, the approach of the designated group of authors can be recognized as one of the most important milestones in the development of the theoretical substantiation of animal-assisted therapy. In our opinion, the indicated approach can also be applied in the framework of the use of animal-assisted therapy in work and with other groups of clients, who need social and physical rehabilitation (people with disabilities, the elderly, people with post-traumatic syndrome, etc.). In this case, we would like to emphasize the psychotherapeutic effect that complements the use of animal-assisted therapy within the framework of psychology.

The development of animal therapy in Ukraine is proceeding rapidly. Many rehabilitation centers are actively developing this direction in their work with different groups of people who need rehabilitation. Today, the basis of Ukrainian animal therapy is hypotherapy, but at the same time, canister therapy and apitherapy are actively developing. Experiments are being carried out on the use of rehabilitation effects in work with rats, foxes and other animals. Given the high need for the rehabilitation of patients with various health problems, Ukraine has a significant potential for the introduction of animal therapy technologies into rehabilitation activities.

National peculiarities of using the theory and methods of hypotherapy are formulated in the works of authors such as R. A. Popolitov (2008), A. I. Rudska and O. S. Soldatova (2013). All of the above indicates that the use of animal therapy in the post-Soviet

expanse is centered on the medical and physical rehabilitation of children and adolescents with functional disorders of the musculoskeletal system. In other countries of the world, animal therapy and hypotherapy are actively used in rehabilitation work with people with autism, psychological and psychiatric disorders. Hypotherapy contributes to the social rehabilitation of adolescents and the resocialization of the elderly. It is this dysfunction that is one of the main factors in the environmental problems of modern Ukrainian society. Therefore, in addition to the social and biological context, this problem also has a social one. It clarifies the fact that representatives of generations over 25 years old have preconceptions for the use of animals in their rehabilitation programs. In general, representatives of this age group cannot be suspected of animal-phobia, but their social experience and the peculiarities of their ecological socialization deny the possibility of using animals in the framework of their rehabilitation programs. The popularization of animal-assisted therapy in the framework of rehabilitation work with clients of middle and older age will be one of the important social tasks of "natural therapy" in the nearest future.

In addition to animal therapy, the structure of the rehabilitation concept "natural therapy" includes the second block, which is based on the rehabilitation aspects of human interaction with the plant world. We single out agricultural therapy and garden therapy among such rehabilitation methods. These ecological technologies of social and physical rehabilitation have a related methodology, but they also have certain differences.

Back to 1993, the Pakistani team of scientists Muhammad Afzal Javed and Umair Rashid Chaudhry described the technology of using "agricultural therapy as part of rehabilitation work within the framework of therapy and rehabilitation of patients diagnosed with schizophrenia" (Javed et al. 1993). These technologies have spread in different countries of the world with a constant focus on the countryside. Today, in Ukraine and other European states, rehabilitation technologies, based on agricultural with the use of processing agricultural products, are being actively discussed. These technologies are especially relevant for people with disabilities, since it is difficult for them to realize their professional and work skills. The inclusion of agricultural therapy is actively substantiated into the list of ecological methods of social work and the possibility of using agricultural in the framework of social rehabilitation of people with

Ellina G. Pozdniakova-Kyrbiatieva, Yurii Volodymyrovych Mosaiev,
Yuliia Siliavina, Lilia A. Zhuzha and Oksana Valentynivna Kobets

disabilities and elderly people (See works of Y. Mosaiev 2019; 2020; Mosaiev et al. 2020).

If we focused on the low level of involvement of middle-aged and older people in the system of rehabilitation measures with the active use of animal-assisted therapy, then the use of plants in the framework of most social practices is the main characteristic of this age category. This is due to the fact that the majority of the population of Ukraine comes from rural areas or their descendants. Rural working experience in the agricultural sector formed psychological attitude to positive attitude towards the agricultural sector and herbal medicine. It is exactly this positive attitude that would give great prospects for the use of agricultural therapy in the work with middle-aged and elderly people. In reality, the situation is still the opposite. At the same time, agricultural and garden therapies are mainly used in the work with children, since specialists in social and physical rehabilitations have a great tendency to experiment. They are adapted to the perception of environmental technologies of social work.

In Ukraine, garden therapy was formalized in 2012 by introducing a special course in the system of controlled socialization of graduates of rehabilitation centers with musculoskeletal disorders, which was authored by I. Sarancha. Prior to the appearance of this course, garden therapy in Ukraine was practically absent in the practical plane and was considered as a theoretical concept with the implementation of individual techniques (See Sarancha 2012).

In 2019-2020, on the basis of the "Khortitsa National Academy" in cooperation with the public organization "We are not indifferent", a concept and methodological view for the development of garden therapy in Ukraine were formulated (See Mosaiev et al. 2020). The previous experience of using garden therapy in the Ukrainian realities was generalized, options for garden therapy locations were proposed as a part of this work, depending on the category of clients with whom rehabilitation work is planned. This work was the beginning of the systematic development of garden therapy in Ukraine.

In European countries, garden therapy is used within the work of psychology in most cases. Anna Adevi and Fredrika Martensson (2013) believe that garden therapy is one of the technologies for overcoming stress. In general, garden therapy is no longer used for rehabilitation purposes in Western Europe, but it is used as a part of the provision of palliative care for cancer patients and clients with psychiatric diseases. At the same time, the rehabilitation effects of

garden therapy in the framework of individual and group programs of physical and social rehabilitation of clients are used less frequently.

The technologies we have listed are the basis for our concept. The implementation of the integral technology "natural therapy" is designed in order to help people with disabilities, the elderly, and veterans of military conflicts, to discover new opportunities and personal resources with the help of ecological rehabilitation technologies and thereby improve the quality of life. We mean, as potential clients of rehabilitation centers, also other members of the society, who need social and psychological relaxation. There is no doubt, that the main directions of using the rehabilitation concept "natural therapy" will be social and physical rehabilitation. This problem is very important, seeing that it is linked to a relatively low level of funding and accessibility for most people and especially children with disabilities in Ukraine. The use of the rehabilitation concept "natural therapy" in the work with other potential groups that need social and physical rehabilitation is practically absent, and it requires to be popularized and to be developed.

The rehabilitation "Natural therapy" has a positive effect on the development and emotional background of people with disabilities and other nosologies. This form of therapy reduces stress and increases the state of calm in people with emotional disturbances, developmental delays and mental illness. It can also be viewed as a relaxing and empowering treatment that promotes a sense of personality and goal achievement. These positive rehabilitation effects underline both agricultural and garden therapy as elements of physical and psychological rehabilitation. The concept can be used in connection with other rehabilitation concepts that are actively used in psychology and landscape gardening. In this series, one can name such rehabilitation directions as aesthetic therapy and recreational therapy. Aesthetic therapy successfully complements the main therapeutic rehabilitative effects of agricultural therapy and garden therapy. The main effect of aesthetic therapy in rehabilitation work is that rehabilitation technologies using garden therapy and agricultural therapy are implemented using specialized locations that carry aesthetic value and can not only be a pleasant addition to rehabilitation activities, but also contribute to direct rehabilitation.

According to Rosemarie Samaritter (2018), aesthetic therapy has the greatest promise of application in the framework of work with people with mental illness. We think that this therapy can be applied

Ellina G. Pozdniakova-Kyrbiatieva, Yurii Volodymyrovych Mosaiev,
Yuliia Siliavina, Lilia A. Zhuzha and Oksana Valentynivna Kobets

within the framework of “natural therapy”; the therapeutic effects of aesthetic therapy can be actively used in the framework of social rehabilitation.

Within the framework of aesthetic therapy, the psychological effect of color is also used in the classical sense, since monochromatic surfaces with prolonged exposure have varying degrees of mental suppression. The location of garden therapy carries a high level of aesthetics as they represent gardens, parks, raised beds and flower beds garden, etc., being the main feature of the collaboration of garden therapy and animal therapy with aesthetic therapy. A comprehensive solution in this regard is the Rehabilitation Park of the Khortytsia National Academy, located on the territory of the city of Zaporozhye, which is unique in Ukraine and in Eastern Europe.

N. Derevyanko (2019, 7) notes that “the rehabilitation park on the island of Khortytsia, in accordance with the project, represents a limited territorial space, in which conditions for the restoration of physical, spiritual and mental health will be created for both adults and children with disabilities by obtaining medical, psychological, cognitive, cultural and animation, physiotherapy and social services”. This rehabilitation park consists of several zones in the protected area of the island, which will be divided into different types of rehabilitation zones with their own specialization. In our opinion, the future development of rehabilitation work in the field of physical and social rehabilitation should be based on such rehabilitation parks. In addition, such kind of locations will become “hubs” for the production of environmental methods of social work, using various methods of social and physical rehabilitation, including technologies of the “natural therapy” concept.

A complementary component of the “natural therapy” rehabilitation concept is recreational therapy. The essence of this type of therapy is the rehabilitation of different groups of social work clients using relaxing techniques. The natural geographic landscape is of great importance; the complexes of relief, soil, vegetation, water, and engineering and architectural recreational structures are specially organized, creating favorable conditions for the recreation of clients in need of rehabilitation of people positive emotional reactions. Such recreational therapy techniques have also great potential in the rehabilitation of military personnel who participated in military conflicts (See Hawkins et al. 2016).

CONCLUSION

“Natural therapy” is an interconnected rehabilitation complex for people in need of social and physical rehabilitation. Its components are agricultural therapy, animal therapy and garden therapy. Complementary areas of “natural therapy” are recreational therapy and aesthetic therapy, which are more often used in psychological rehabilitation. The main categories of clients to whom the technologies of “natural therapy” are directed can be people with disabilities, children and the elderly, military personnel.

REFERENCES:

- Adevi, Anna A., and Fredrika Martensson. 2013. “Stress rehabilitation through garden therapy: The garden as a place in the recovery from stress”. *Urban Forestry & Urban Greening*, 12(2): 230-237.
- Budahn, Nichole M. 2013. “Effectiveness of Animal-Assisted Therapy: Therapists’ Perspectives”. *Sophia*, the St. Catherine University repository website: https://sophia.stkate.edu/cgi/viewcontent.cgi?article=1159&context=msw_papers [accessed: 10 July 2021].
- Chandler, Cynthia K., Torey L. Portrie-Bethke, Casey A. Barrio Minton, Delini M. Fernando, Dana M. O’Callaghan. 2010. “Matching Animal-Assisted Therapy Techniques and Intentions with Counseling Guiding Theories”. *Journal of Mental Health Counseling*, 32(4): 354-374.
- Derevyanko, N. P. 2019. “Location for garden therapy in the rehabilitation park of the Khortytsia National Academy (Khortytsya Island)”. Materials of the Conference: *Actual problems of garden and park art* (November 27, 2019). Uman National University of Horticulture, pp. 7-9.
- Hawkins, Brent L., Jasmine A. Townsend, Barry A. Garst. 2016. “Nature-Based Recreational Therapy for Military Service Members: A Strengths Approach”. *Therapeutic Recreation Journal*. 50(1): 55-74. doi.org/10.18666/TRJ-2016-V50-11-6793 [accessed: 20 June 2021].
- Javed, Muhammad Afzal, Umair Rashid Chaudhry, Tahir Suleman, Muhammad Rashid Chaudhry. 1993. “Agricultural New Concept of Rehabilitation for Chronic Schizophrenics in Pakistan”. *Journal of the Pakistan Medical Association*, 43(12).
- Kamioka, H., S. Okada, K. Tsutani, H. Park, H. Okuizumi, S. Handa, T. Oshio, S.-J. Park, J. Kitayuguchi, T. Abe, T. Handa, Y. Mutoh. 2014. “Effectiveness of animal-assisted therapy: A systematic review of randomized controlled trials”. *Complementary Therapies in Medicine*, 22(2): 371-390.
- Mosaiev, Yu. V. 2019. “Features of garden therapy as a technology of social work with the elderly”. *Current research in the social sphere: Materials of the fourteenth international scientific-practical conference* (Odessa, November 18, 2019), pp. 61-63.
- Mosaiev, Yu. V. 2020. “Agricultural therapy as a kind of ecological technologies of social work”. *Current research in the social sphere: Materials of the sixteenth international scientific-practical conference* (Odessa, November 17, 2020), pp. 64-66.

Ellina G. Pozdniakova-Kyrbiatieva, Yurii Volodymyrovych Mosaiev,
Yuliia Siliavina, Lilia A. Zhuzha and Oksana Valentynivna Kobets

Mosaiev, Yu. V., N.P. Derevyanko, and O.S. Grigorenko. 2020. *Methodical Manual on the Introduction of Garden Therapy in Ukraine*. Zaporizhzhia: NGO "WE CARE".

Popolitov, R. A. 2008. "Hippoprehabilitation, its social significance and prevalence in the rehabilitation system of people, including those suffering from cerebral palsy, as well as effectiveness when working with children with spastic forms of this disease". Materials of the interregional scientific-practical conference with international participation, April 17-18, 2008. Simferopol, pp. 146-148.

Rudska, A. I., and O. S. Soldatova. 2013. "Social rehabilitation of children diagnosed with cerebral palsy by hippotherapy". *Bulletin of NTUU "KPI" Political Science, Sociology, Right*, 4(20): 107-113.

Samaritter, Rosemarie. 2018. "The Aesthetic Turn in Mental Health: Reflections on an Explorative Study into Practices in the Arts Therapies". *Behavioral Sciences*, 8(4):41. doi: 10.3390/bs8040041 [accessed: 10 July 2021].

Sarancha, I. G. 2012. "Special course 'garden therapy' in the system of controlled socialization of graduates of rehabilitation centers with disorders of the musculoskeletal system". Collection of scientific works of Kamyanets-Podilsky National University named after Ivan Ogienko. Series: Socio-pedagogical, 19(2): 402-409.