

Understanding Physiotherapy as a Natural Medicine for Human Health

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Abstract: In the era of growing environmental challenges, an ecological lifestyle is no longer an option, but a necessity. The benefits of an eco-friendly approach to health include: (1) Improved health: avoiding harmful substances in food and cosmetics, improving air quality at home. (2) Stress reduction: spending time outdoors, physical activity, as well as living in harmony with nature and protecting the environment. An ecological approach in medical facilities protects the local environment and translates into more effective, safe and sustainable healthcare. Medical facilities that engage in pro-ecological initiatives can also promote a healthy lifestyle in the local community. Activities in this area may include the organisation of programmes to encourage physical activity, education on healthy eating, as well as the provision of recreational areas for patients and staff. (3) Promoting sustainable mobility: encouraging workers to use public transport, bicycles or electric cars can help to reduce greenhouse gas emissions associated with commuting. An ecological approach to health is a holistic view that emphasizes the relationship between human health and the state of the natural environment. Physiotherapy services provided by physiotherapists to individuals and the population are designed to develop, maintain and restore their maximum fitness and improve their functioning throughout their lives. On the basis of selected articles, I present issues related to physiotherapy and an ecological approach to it. Physical activity, along with its alleviating effect on Parkinson's disease symptoms, remains an underestimated factor that can be used to achieve a treatment outcome. Modern evidence supports the positive impact of non-pharmacological approaches to treating Parkinson's disease symptoms, in particular the effect of exercise on motor and non-motor symptoms. Physical activity can have a protective and stimulating effect, providing better functional performance in higher-level cognitive networks. It can also improve balance and motor function by improving muscle strength. In a study on the initial effectiveness of yoga in treating moderate to severe depression, participants rated yoga positively. Many children with brain impairment thrive despite negative risk factors or prognosis. Most follow-up studies do not show inconclusive effects of specific physiotherapy programs or activations. Evidence is accumulating about the effects of the environment on brain plasticity, but it's unclear what exactly this means for humans. Environmental changes affect human health. The practice of clinical ecology includes environmental sensitivity practices and its theories. Most methods of diagnosis and treatment have been debunked, and the concepts underlying these theories are not scientific. I believe that physiotherapy in the current world is a very ecological solution to the diseases that affect us. However, this requires constant review, literature analysis, research and research in this direction.

Key words: Physiotherapy, ecology, movement therapy.

1. Admission

In the era of growing environmental challenges, an ecological lifestyle is no longer an option, but a necessity. The benefits of an ecological approach to health are, m.in, (1) Improved health: avoiding harmful substances in food and cosmetics, improving air quality at home. (2) Stress reduction: spending time outdoors, physical activity, as well as living in harmony with nature and protecting the environment [1]. An ecological approach

in medical facilities protects the local environment and translates into more effective, safe and sustainable healthcare [2]. An ecological approach to health is a holistic view that emphasizes the relationship between human health and the state of the natural environment [3]. Physiotherapy services provided by physiotherapists to individuals and the population are aimed at developing, maintaining and restoring their maximum fitness and improving their functioning throughout their lives [4]. However, modern therapy is inherently

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more complex than the emphasis on knowledge and skills. Physiotherapy, as an essentially low-carbon profession, can play a key role in the shift from an emphasis on the body 'external' to the natural world to one in which people are restored to their place as equals contributing to ecosystem health. Key to this transformation are the different types of physiotherapy practices that privilege companionship and support for movement – in all its forms – without the need to direct movement according to standards, defined patterns and rigid norms [5]. Physiotherapy is also based on the basic principles of biomedicine: normalization, the search for a specific etiology, reductionism and treating the body as a machine and treating the body as a machine. Despite some recent challenges with this approach, stemming from qualitative research, person-centered care, the biopsychosocial model, the democratization of medical knowledge, and the growing influence of alternatives to orthodox Western health care, physiotherapy remains classically an intervention profession [6].

2. Methods

Change your mind, by analyzing articles from the PubMed and Google, I present issues related to physiotherapy and the ecological approach to it, in order to find research questions for further analysis [7].

3. Results

Physical activity, along with its alleviating effect on Parkinson's disease symptoms, remains an underestimated factor that can be used to achieve a treatment outcome. Modern evidence supports the positive impact of non-pharmacological approaches to treating Parkinson's disease symptoms, in particular the effect of exercise on motor and non-motor symptoms. Physical activity can have a protective and stimulating effect, providing better functional performance in higher-level cognitive networks. It can also improve balance and motor function by improving muscle strength [8]. In a study on the preliminary effectiveness

of yoga in treating moderate to severe depression, participants rated yoga positively [9]. Many children with brain impairment thrive despite negative risk factors or prognosis. Most follow-up studies do not show inconclusive effects of specific physiotherapy programs or activations. Evidence is accumulating about the effects of the environment on brain plasticity, but it is unclear what exactly this means for humans [10]. Family ecology in early childhood may affect children's activity and participation in everyday life [11] (Fig. 1).

Environmental changes affect human health. A patient's ability to successfully complete a rehabilitation program, particularly home exercises, can be evaluated in a social and ecological context, which can improve patient adherence [13]. The effectiveness of rehabilitation in various areas, such as sitting, maintaining hygiene or using the toilet, is important for maintaining independence and quality of life of the elderly. Properly selected methods of physical therapy, kinesiotherapy and massage have a significant impact on the improvement of motor skills both in terms of gross motor skills (e.g. gait) and low manual dexterity [14]. By reducing and delaying the need for pharmacotherapy for mild to moderate musculoskeletal pain, physiotherapy provides an important, sustainable healthcare solution. In addition, the ecological sustainability of non-steroidal anti-inflammatory drugs has a negative impact on health. By reducing and delaying the need for pharmacotherapy for mild musculoskeletal pain, physiotherapy represents an important sustainable healthcare solution [15]. The practice of clinical ecology includes environmental sensitivity practices and theories [16]. Most physiotherapy clinics in the Community of Madrid are aware of the concept of sustainability. However, in practice, they do not sufficiently apply sustainability protocols in their clinics [17]. Research conducted by health professionals, including physiotherapists, shows that there is a desire to reduce the carbon footprint of our professions [18]. Planetary Health – Physical therapy education must emphasize academic cognition and proficiency,

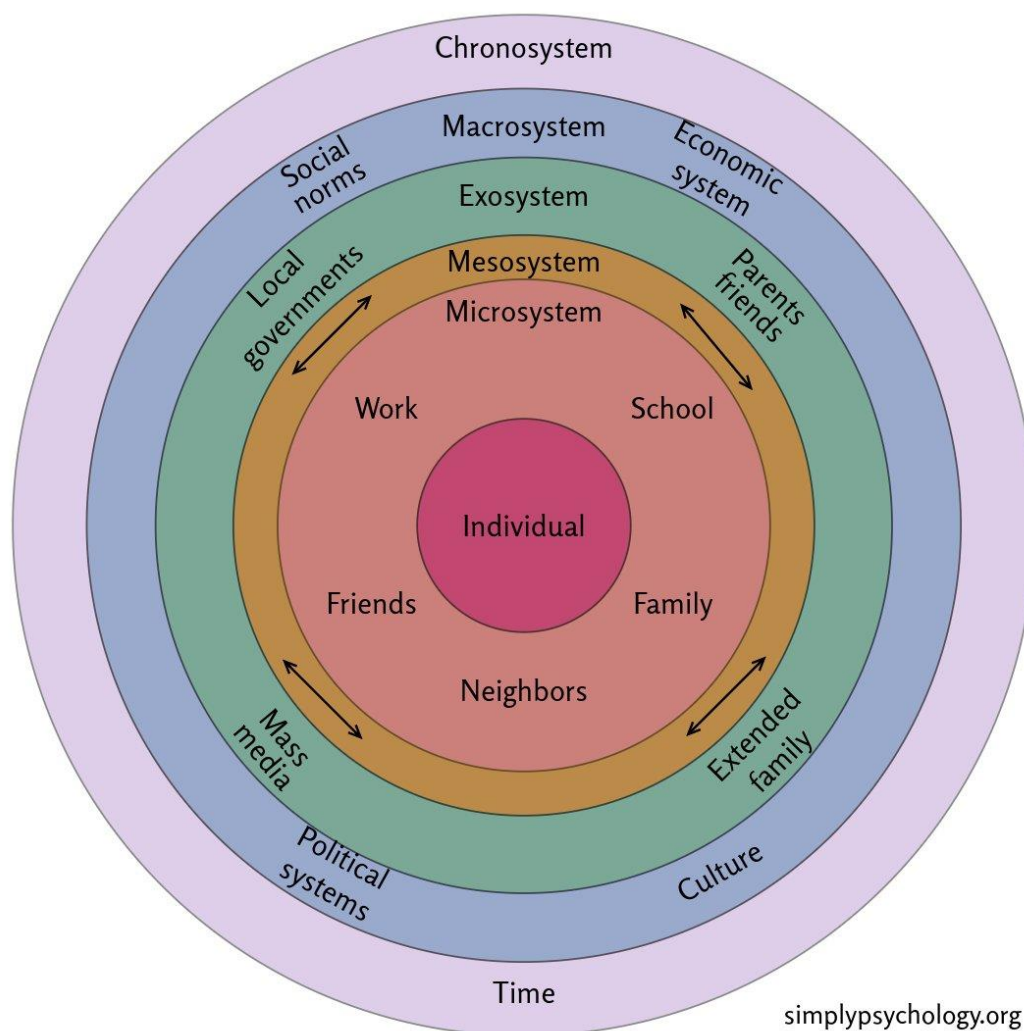


Fig. 1 Ecological environmental model of U. Bronfenbrenner (Source: Bronfenbrenner [12]).

emotional intelligence, social awareness, and ethical awareness, aligning learning experiences with local and global beliefs. Pedagogical approaches that inspire hope and prepare students to make meaningful contributions to their communities should be promoted, while respecting the principles of equality and intergenerational justice [19] (Fig. 2).

The implications for the training process in a sports context are being explored in relation to the approach

to information processing in motor tasks and the newer ecological paradigm. Questions arise about the current principles of practice based on traditional theoretical concepts. A practice strategy that places greater emphasis on guided exploration of the practice workspace defined collectively by the properties of the entity's subsystems, the specific task, and the environment is recommended. This constraint-based perspective replaces the previous distinctions between basic and volunteer skills [21].

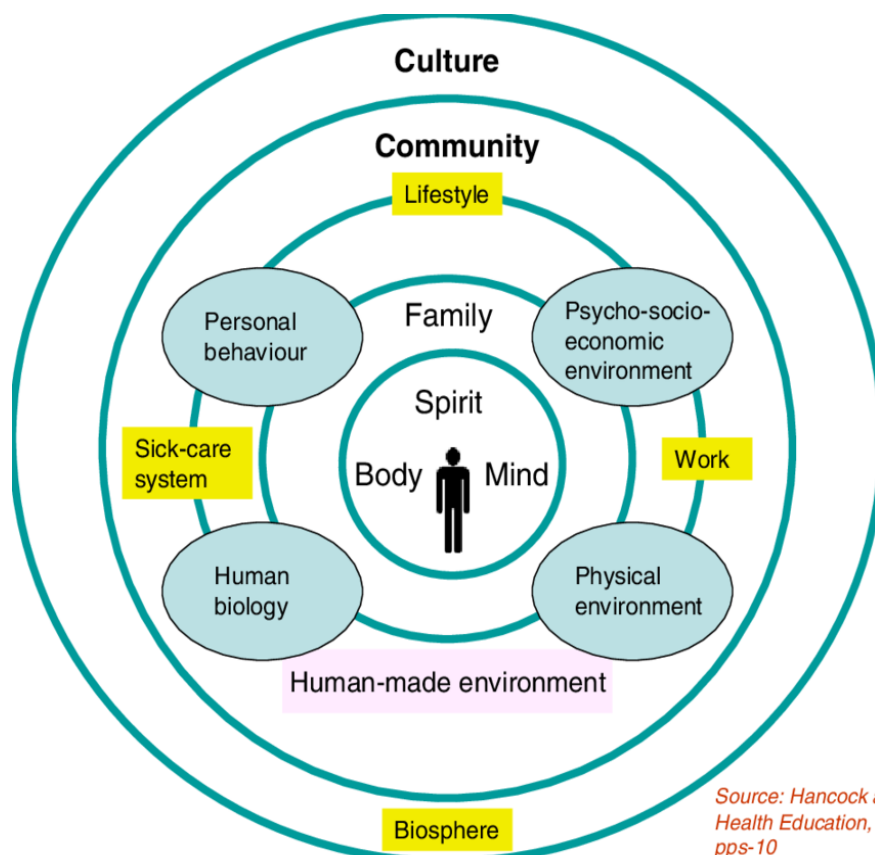


Fig. 2 Health mandala – a model of the health ecosystem (Source: Poździejch and Ryś [20]).

4. Discussion

Ecology in physiotherapy is a broader view of the patient, taking into account their environment and factors affecting health. The concept of environmental sensitivity is popular among a small group of physicians who believe that exposure to low levels of numerous chemicals in the environment can cause disease with numerous symptoms but without objective physical or laboratory abnormalities. This condition does not have a clear definition. The numerous theories that have been proposed to explain this condition include immunotoxic, allergic, autoimmune, neurotoxic, cytotoxic, metabolic, behavioral, psychiatric, iatrogenic and sociological mechanisms. Environmental vulnerability shares many characteristics with other controversial syndromes, such as chronic fatigue syndrome. When it comes to eco-spirituality, we need to renew the way we understand and relate to the planet. To understand eco-spirituality, we must keep in mind the indigenous way

of life, which is a clear example to follow to achieve environmental and global health. Physical activity remains a relatively underestimated factor that may be beneficial for non-pharmacological approaches to Parkinson's disease treatment. Changes in the environment affect human health. Physical activity can have a protective effect. Therefore, it is recommended to provide the body with about an hour of exercise per day. Improving levels of physical activity will benefit health and well-being and contribute to attainment of global Non-Communicable targets and a number of the Sustainable Development Goals [22]. The integration of knowledge in the field of ecology, public health and modern physiotherapeutic standards opens up new perspectives for individual and systemic solutions supporting human health in harmony with the environment. The challenge is not only to promote physical activity as an element of prevention and therapy, but also to include patients, their families and entire communities in the processes of co-creating

References

- environmentally friendly rehabilitation spaces. As a result, the future of physiotherapy appears to be an area of ongoing dialogue between science, clinical practice and ecology. While environmental factors are linked to participation and active competence in children with cerebral palsy, there is a lack of research on environmental factors in relation to participation, engagement, and other participatory constructs. The practice of clinical ecology includes environmental sensitivity practices and its theories. Most methods of diagnosis have been debunked, and the concepts underlying these theories are not scientific. I believe that physiotherapy in the current world is a very ecological solution to the diseases that affect us. However, this requires constant review, analysis of the literature and research in this direction.
- ## References
- [1] Orange Polska. 2025. "Why Is It Worth Living Ecologically?"
 - [2] Medidesk. 2025. "Green Initiatives in Medical Facilities. How does ecology affect health care?"
 - [3] Diagnostics Medical Laboratories. 2025. <https://diag.pl/pacjent/artykuly/holistyczne-podejscie-do-zdrowia-na-czym-polega/>.
 - [4] Omega Specialist Medical Center. 2025. "Physiotherapy Suchy Las." [https://scmomega.pl/fizjoterapia-2/#:~:text=Fizjoterapia%20%20physical%20therapy%2C%20physiotherapy%2C%20PT\)%20%20E2%80%93,functional%20movement%20has%20essential%20importance%20for%20health.](https://scmomega.pl/fizjoterapia-2/#:~:text=Fizjoterapia%20%20physical%20therapy%2C%20physiotherapy%2C%20PT)%20%20E2%80%93,functional%20movement%20has%20essential%20importance%20for%20health.)
 - [5] Zoo Restaurant stop. 2024. "The role of the physiotherapist in the twenty-first century between science and empathy." <https://przystanekzoo.pl/rola-fizjoterapeuty-w-xxi-wieku-miedzy-nauka-a-empatia/>.
 - [6] Maric, F., & Nicholls, D. A. 2021. "Environmental Physiotherapy and the Case for Multispecies Justice in Planetary Health." *Theory and Practice of Physiotherapy* 38 (13): 2295-306.
 - [7] [google.com/search](https://www.google.com/search), Research questions. [hestory.is/pl/journal](https://www.hestory.is/pl/journal).
 - [8] Gronek, P., Haas, A. N., W., Podstawski, R., Delabary, M. D. S., Clark, C. C. et al. 2021. "Mechanism of Parkinson's Disease Improvement Caused by Physical Activity: A Narrative Review." *Aging and disease* 12 (1): 192-202.
 - [9] Nyer, M. B., Hopkins, L. B., Nagaswami, M., Norton, R., Streeter, C. C., Hoepfner, B. B. et al. 2023. "A Randomized, Controlled Trial of Community-Delivered Heated Hatha Yoga for Moderate to Severe Depression." *Journal of Clinical Psychiatry* 84 (6): 14621.
 - [10] Lebeer, J. and Rijke, R. 2003. "Developmental Ecology in Children with Brain Impairment". *Child: Care, Health and Development* 29 (2):131140.
 - [11] LaForme Fiss, A., Chiarello, L. A., Bartlett, D., Palisano, R. J., Jeffries, L., Almasri, N. & Chang, H. J. 2013. "Family Ecology of Young Children with Cerebral Palsy". *Child: Care, Health and Development* 40 (4): 562-71.
 - [12] Bronfenbrenner, U. 1988. "Interacting Systems in Human Development: Research Paradigms: Present and Future". In *People in context: developmental processes*. Cambridge: Cambridge University Press.
 - [13] Nakamura, Y., Shah, N., & Stirpe, A. 2022. "The Experience of Rehabilitation after Anterior Cruciate Ligament Reconstructive Surgery: A Socio-ecological Analysis". *Physiotherapy* 75 (4): 359-65.
 - [14] Lewicka, B., Gomula, P. & Zych-Twardowska, E. 2023. *Physiotherapy in Medicine and Human Health Care*. Lublin: Tygiel Publishing House, p. 2014.
 - [15] Banerjee, S., & Maric, F. 2023. "Mitigating the Environmental Impact of NSAIDs – Physiotherapy as a Contribution to One Health and the Sustainable Development Goals." *European Journal of Physiotherapy* 25 (1): 51-5.
 - [16] Terr, A. I. 2003. "Sensitivity to the Environment". *North American Clinics of Immunology and Allergology* 23 (2): 311-28.
 - [17] Sánchez Ibáñez, A., Franco Hidalgo-Chacón, M. D. L. M., Sánchez Romero, EA and Cuenca-Zaldivar, J. N. 2022. "The Situation of Physiotherapy Clinics in the Community of Madrid in the Context of the Concept of Sustainable Development: A Survey Study". *Sustainability* 14:16439.
 - [18] Duindam, D. 2023. "What Actions can I Take as a Physiotherapist to Reduce the Ecological Footprint of My Profession as Effectively as Possible?" Clinical Practice, Environmental Sustainability, July 4, 2023
 - [19] Paz-Lourido, B. & Chaves, A. R. 2025. "Regenerating the Physical Therapy Curriculum in Higher Education: Delving into the Synergy of Concepts of Planetary Health and Service Through Learning." *The Boundaries of Public Health* 13:1-12.
 - [20] Poździejch, S., & Ryś, A. 1996. *Public health* (selected issues). Kraków: University Medical Publishing House Vesalius, p. 254.
 - [21] Hanndfort, C., Davids, K. & Bennett, S. 1997. "Skill Acquisition in Sport: Some Applications of the Evolving Ecology of Practice." *Sports Science* 15 (6): 621-40.
 - [22] Google Search. www.who.int/news-room/fact-sheets/detail/physical-activity (the sentence was changed)