Psychomotor therapy in the context of multisensory environment

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Abstract: *Multi-sensory environment as a room for therapeutic intervention is currently an increasingly used method. It is possible to apply not only typical activities for the support of sensory integration and the use of therapy, but it is also an environment whose elements are also usable for other therapeutic concepts, such as psychomotor therapy. This synthesis is suited to application in every stage of lifetime, since the multisensory environment is wide-spectrum in use. As it offers space for active motor activities, it is also a space for reminiscence, evaluating in senior age. This study offers basic definitions supplemented by research samples from current ongoing research on aspects of multisensory environment in therapeutical pedagogy.*

Keywords: *multisensory environment, psychomotor therapy, expression*

1 Introduction

Human psychomotorism is an integral part of life. In order for the movement to take place, it is necessary to involve several human sensory channels, cognitive abilities and sensory perceptions. Movement is therefore a product of complex perceptions, although at first glance it looks very simple. It affects the entire personality of the person, it has significance throughout life, from the early age to the senior age. In each period, the meaning of motion is different. The meaning of movement is specific in each of the aforementioned periods. In the early age, motion is a natural component as dynamic psychomotor development takes place and the baby is gradually lying down all four limbs, standing and walking for two years. Movement is part of play, natural activities, the "work" of a child in a regular daily play.

In the next period, the importance of movement is determined in particular by the preferences of the child or in pre-school and younger school age rather than family

and family environment. In general, the children of parents for whom movement is a natural part of the day move more to the extent that the movement is a lifestyle for them. In seniors, movement is often severely restricted, in connection with illness or muscle wasting. Movement is, however, a way of memorizing, supporting cognitive functions, reminiscent of the surviving life story. In each of the periods of life, it is necessary to focus on a particular person in a complex way, given their current life situation, family survival or social status. Movement in psychomotor therapy is a therapeutic medium, but it also includes other factors. The psychomotor function of a human being is its expression, it is unique to everyone, it is an authentic and autonomous embodiment of his real physical "I". Motion is the result of cooperation between psychological and physical factors. Therefore, it also includes social factors, the movement of people shows what relationships they have with their surroundings.

The meaning of nonverbalism is indisputable both in private and in the workplace. The location of a body within a group points to a social status hierarchy. The attitude of a person presents his / her attitude towards the environment, the current situation. The surrunding has the ability to watch attentively whether they feel comfortable in the social situation or unpleasant and troublesome. Nonverbal survival is the basic pillar for the relationship of the child to one's own body. Contact with parents, especially if the child has a person with whom he/she spends more time, is one of the important needs of the child. The child already at an early age perceives:

- hug,
- touch of hand,
- vibrations coming from the mother's voice,
- smell,
- skin through a tactile system.

All of these observations come from several sensory paths. Already at an early age, the child's consists not only of mental and motor survival but is a synthesis of all the information obtained. Since, despite the fact that an early age child is still not able to speak in a verbal form, their needs are expressed almost constantly, it is more important for the mother or parents to learn to identify their child's nonverbal expressions. The range of expressions is relatively broad, and it is often the case that the child's needs can only be recognized by the person most likely to be identified with it. If the person does not identify the child's needs, it leads to the frustration of the child but also of the person in question.

Through this information, the child builds their own "me", their self-concept. They are involved in building (Zimmer, 2006):

- information obtained through sensory experience,
- experience from the effects of our actions,
- the result of comparing with others,
- the qualities attributed to us by others,
- expectations of the environment,
- experience of self-satisfaction with yourself,
- a summary of information gathered through activities – abilities, talents, possibilities, performance.

Expression through the specific means that multisensory environment offers is also appropriate with links to physical activity. For components used in this environment, a specific high degree of variability, usability, and therapist offer a wide range of therapeutically useful tools.

Multisensory, pre-prepared environment is also suitable for verbalisation of psychomotor-oriented activities. It offers security, creativity and shared experiences for a group form of interventions. In specific cases it is possible to use the individual form (Fábry Lucká, 2017):

- body stimulation through body change (swing, water bed, weighting boards),
- physical stimulation through visual stimuli (as well as visiomotor support), for example, using optical fibers or a bubble cylinder,
- body stimulation through vibrational stimuli (water bed, vibration aids, snakes).

In a multisensory environment, there is room for interviews with the client in terms of verbalization even if the communication is in a different way than usual. It offers security, creativity and shared experiences for group form.

The multi-sensory environment is a stimulating environment for psychomotor play. Multiplayer play is nothing new, traditional games involve multiple senses at the same time, but for some children it is also necessary to interfere with the environment. Without a comprehensive approach to the child and their family, this therapeutic approach is not complete. A multi-sensory environment is an environment where, at one point multiplied stimulation is provided through specific stimuli. Fowler (2007) states that in a multisensory environment there is room for a large number of sensory activities that can be performed there.

Lessner Lištiaková (2017) emphasizes the individual needs, abilities and possibilities that can be activated in a multisensory environment through child's natural activity – play. To implement multisensor therapy in the Snoezelen environment, it

is especially important to implement it in a pre-prepared environment tailored to the client and their specific needs.

Lištiaková (2014) emphasizes the importance of using the multisensory environment for clients with autism spectrum disorders, precisely because of the possibility of high variability in the use of various stimuli, which can be grasped even in the specific expression of the client.

The equipment of the multi-sensory room consists of basic components, which are tailored to the needs of a particular client.

The dark room is supposed to support the optical paths, but the components are very similar to the white multisensory room.

The playful or colorful room is closest to a typical room, a therapeutic play room designed to treat sensory integration disorders. It includes various stimulating surfaces as well as obstacle paths or space designed to support the proprioceptive system. In the play room, an expert has the opportunity to prepare obstacle lanes with different focus:

- static obstacles in space,
- balancing obstacles, bulk boards, benches, designed to maintain balance,
- changing the body position in the space through a swing, balancing plate,
- roller board intended for movement in the room lying down or sitting.

2 Methods of research and research results

The aim of qualitatively oriented research was to identify and analyze social and communication competencies in individuals with multiple disabilities in the multisensory environment combined with psychomotor therapy. For the analysis we used observations of clients in multisensory rooms and their regular environment in structured and unstructured activities.

In this case, the area of communication is crucial, as it is often not performed in a standard form. In a multi-sensory environment there is room for expression of the client as it offers diverse incentives. In the area of communication we have recorded five variables:

- interaction with the environment,
- establishment, maintenance and development of conversation in communication,
- sufficient space for communication,
- a system of alternative and augmentative communication,
- preference in communication.

Interactions with the environment are problematic especially when expression is only through neurovegetative expressions, that is, when a common form of communication is not possible. Neurovegetative manifestations include skin flushing, skin fading, acceleration – deccelaration of breathing, etc. As often these expressions cannot be identified for a person who does not know how to communicate, their needs cannot be recognized. Here is where psychomotor therapy is used as an intervention through the recognition of non-verbal expressions. Another factor is insufficient time to respond – a person with multiple disabilities often has no opportunity to respond, because the communicator assumes that if the client does not respond immediately they are not able to answer. If there is also a visual or hearing impairment in the spectrum of a person's disability, the situation is even more complicated. An alternative communication system can also lead to repetition of topics, communication does not find new themes, but repeats the so-called favorite themes, the communication dictionary is not updating. Support of sensomotorics through activities focused on the proprioceptive system has proved to be stimulating to interactions.

Establishing, maintaining and developing a conversation in communication is already an advanced way of communicating as it is about conversational competencies. According to our findings, one of the factors is the rejection of communication from both sides. Likewise, communication can be rejected by a person with multiple disabilities, as well as their surroundings, because of the fear of communicating with such a person can prevail on the basis of stereotypes. A person with multiple disabilities also has their own reluctance to communicate with a negative experience of misunderstanding from the past. If their communication is often misunderstood, they do not not tend to follow up on the new conversation themselves. The reluctance to converse can also be caused by a cognitive barrier or fear of misunderstanding. Promoting social relations and links is the basic principle of activities aimed at promoting social factors of psychomotor therapy.

Insufficient space for communication – we identified this problem mainly in the institutional environment. Spatial barriers, which are apparently only a matter of constraint, have a demotivating impact on a person with multiple disabilities. Since there is no communication about privacy, conversations that should be of an intimate nature often take place in the presence of unwanted witnesses. Another variable has also been identified as a deliberate isolation from the communication process, even though the subject of the interview relates to the other person. The decision remains for the family or the staff of the facility in which this person resides. Their fundamental human rights might be refused. Working with space is an important variable in both psychomotor therapy and multisensory environment.

A system of alternative and augmentative communication is an actively used form. But as much as it requires the intervention of the environment, and also the experts who provide the intervention, it has also proved to be a problem category

in the research work. The most common problems in this area were problems with active use outside of the training environment. What works in the institutional environment is not transferable to the real environment. Also, the range of symbols used is limited, which leads to the ritualized stereotypical repetition of the same topics. The multi-sensory environment is full of new stimuli that can be updated and this rigidity can be partially changed.

Preference in communication as a problem area involves, in particular, the selection of persons for the communication process. Even in a multisensory environment, it is the ignorance of another client present and the preference of communication only with the therapist. Another phenomenon is, for example, keeping the communication process under certain conditions – "I will be communicating, but if you are to stimulate me with a specific device, change is not possible".

3 Research vignettes

As Kováčová (2010) states that a wide range of applications in a multisensory environment can be used as a space for provoking client's expression. We were able to observe clients' activation in our research (Research Demonstration 1). In case where communication is not routined, and the child's development is not standard, multisensory environment provides a stimulating activity.

Research demonstration 1

Vanda responds to stimulation in a multisensory environment by moving her head to the sides. The absence of movement signifies the answer, consent is communicated by turning the head to the left and establishing eye contact. In addition to this basic set of expressive expressions, satisfaction is expressed by accelerating breathing, reddening in the face. Physical stimulation with optical fibers allowed for the usual way of communicating (moving the head to the sides) to be removed, as if it stopped at the moment. Her breath begins to accelerate and becomes shallower, faint in her face, and for the moment of stimulation this becomes the only expression for the therapist, expressing her satisfaction.

The child recognizes her own body, her own borders, she learns to perceive her body as a means of interacting with one another and communicating with the environment. She acquires the knowledge from the whole environment and through different sensory paths. Supporting the proprioceptive system is the basis for perceiving the physical "I" to allow the child to orientate in one's own life and to provide a feeling of security in which the child can develop safely. Awareness of the surrounding environment is a certainty for a child, as well as the fact that certain activities that a person conducts on a regular basis become a ritualized activity, a ritual that the child localizes in time and space. A multisensory environment is an area suitable

for building rituals because it has the equipment that is part of the room and a part that is portable. Ritualization may be manifested, for example, in the selection of the same components in a multisensory environment (Research Demonstration 2).

Research demostration 2

Robert turned to the water bed immediately after coming into the room. He adjusted the pillows to the right-hand side of the bed, and he did not touch them afterwards. He laughed and took a breath for a moment. After a moment, he turned to the therapist and pointed at the aid box. The therapist brought the box to him, and Robert started to crawl inside. He picked up all the items and looked at them thoroughly. Finally, he took a soft massage ball and handed it to the therapist. This activity always has the same, unchanging course.

Rituals had an important psychohygienic function in the past. Nowadays, multisensory therapeutic rooms have become part of a variety of facilities – from school to social, to medical, with the most common type of room being a white room for relaxation. However, the trend of mobile realization, i.e. the use of only part of the means isolated, for example in the client's home environment, is also rising.

The concept of psychomotorics by Zimmer (2006) in the past referred to the part of psychology that dealt with perception, not movement. Therefore, the connection to the multisensory environment is a natural form. Movement is part of sensory processing facilitating processes, and psychomotorism itself contains the first multisensory aspects.

From the perspective of psychomotorism in the context of multisensory intervention, it is appropriate to use:

- activities to support proprioceptive system,
- activities to support vestibular perception – swinging, jumping,
- massage,
- touch activities,
- family games and rituals,
- simple motion games, non-verbal games,
- ritual play on the body,
- games with changing body position in space.

Multisensory environment is a safe environment for expression even if communication is problematic. It offers direct stimulation, which makes it is possible to realize psychomotor activities for the individual and for the group. It offers incentives directly to support the motor skills, such as a water bed, sensomotor pad, swings or

balance plates. Even relaxation as one of the major psychomotor activities (Szabová, 1998) is realizable in multisensory, even this environment offers relaxation directly. Whether on a water bed or under a "starry sky" created by light optical stimuli (Research Demonstration 3).

Research demonstration 3

Matthew relaxes in a white room despite the fact that during his usual activities his activity is excessive. He chooses a swing himself, chooses the theme of projection on the projector. In a pleasant atmosphere, after the active phase of the therapeutic session, he relaxes himself so much that he can even fall asleep.

4 Conclusions

Multisensory stimuli and materials are fully integrated into the context of psychomotor therapy as they are stimuli that promote not only motorism but also sensory pathways and their integration into the complex human personality. They are suitable to support sensomotorics, sociomotors, neuromotors and psychomotors as such through activities that can be performed in a sensitively modified environment. Psychomotor therapy is a concept much like the concept of multisensory therapy. It also focuses on supporting the complex personality of the client with regard to their current state. Motion-oriented activities are more effective and often more appealing to the client in the space which motivates them to move. The client experiences his or her own body in an experiential manner, develops their body "self", self-concept, and extends the variability of their expression to the environment.

References

[1] Fábry Lucká, Z. 2017. *Psychomotorika ako integrálna súčasť multisenzorických prístupov*. In Lessner Lištiaková, I. (Ed.). 2017. Multisenzorické aspekty liečebnopedagogických terapií. Bratislava: Univerzita Komenského, 2017. ISBN 978-80-223-4476-0.

[2] Fowler, S. 2007. *Senzory stimulation: Sensory Focused Actvities for People with Physical and Multiple Disabilities.* London and Philadelphia: Jessica Kingsley Publishers, 2007. ISBN 978-1-84310-455-1.

[3] Kováčová, B. 2010. *Inkluzívny proces v materských školách: začlenenie dieťaťa s odlišnosťami do prostredia inkluzívnej materskej školy*. Bratislava: Musica Liturgica, 2010. ISBN 978-80-970418-0-9.

[4] Lessner Lištiaková, I. 2017. Multisenzorické prístupy. In Lessner Lištiaková, I. (Ed.). 2017. Multisenzorické aspekty liečebnopedagogických terapií. Bratislava: Univerzita Komenského, 2017. ISBN 978-80-223-4476-0.

[5] Lištiaková, I. 2014. Multisenzorické prístupy k deťom s poruchami autistického spektra. In *Špeciálnopedagogické poradenstvo: Informačný bulletin XVIII.* Bratislava: VÚDPaP, 2014. ISBN 978-80-89698-05-9. s. 24–31.

[6] Lucká, Z., Strašilová, J. 2011. Snoezelen v domove sociálnych služieb. In Kováčová, B. 2011. Výchova verzus terapia – hranice, možnosti, riziká. Bratislava: Univerzita Komenského, 2011. ISBN 978-80-223-30006-0.
[7] Szabová, M. 1998. *Náčrt psychomotorickej terapie.* Bratislava: Pedagogická fakulta Univerzity Komenského, 1998. ISBN 80-88868-06-8.
[8] Zimmer, R. 2006. *Handbuch der Psychomotorik.* 8. vyd. Freiburg im Breisgau: Herder, 2006. 271 s. ISBN 3-451-28930-9.

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