

# Occupational Therapy Intervention in Correctional Work with Children with Severe and Multiple Developmental Disabilities (SMDD): Scientific, Methodological and Practical Aspects

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**Abstract:** The article is devoted to the analysis of occupational therapy intervention in the system of correctional care for children with severe and multiple developmental disabilities. The key scientific and theoretical approaches to understanding occupational therapy as a method of increasing the level of autonomy, as well as its role in the system of interdisciplinary support, are considered. The results of an applied study confirming the effectiveness of targeted sensorimotor activity in correcting cognitive and behavioral manifestations of SMDD are presented. The necessity of introducing occupational therapy into the system of special and inclusive education in Uzbekistan is substantiated. The author summarizes international practices and formulates recommendations for the training of specialists and standardization of occupational therapy programs.

**Keywords:** Occupational therapy, severe and multiple developmental disorders, correctional and developmental intervention, sensorimotor development, habilitation, inclusion.

**Introduction:** The modern paradigm of education and social policy is aimed at ensuring equal opportunities and quality support for all categories of children, including those with severe and multiple developmental disabilities. In the context of a rapid increase in the number of children with severe forms of central nervous system disorders, motor, sensory and cognitive deficits, there is a need to rethink the approaches and tools used. One of the most promising and scientifically sound methods integrating medical, pedagogical and social approaches is occupational therapy.

The particular significance of this study is due to the fact that in the Republic of Uzbekistan, occupational therapy has not yet received institutional recognition, despite its proven effectiveness in many countries around the world. The work presented in the article is aimed at filling this gap and demonstrating the potential of occupational therapy strategies in the

context of the Uzbek correctional and educational system.

## Theoretical and methodological foundations of occupational therapy

Occupational therapy is a field of activity based on the use of meaningful and significant actions (activities) aimed at restoring or developing human functional capabilities. According to the definition of the World Federation of Occupational Therapists (WFOT), the goal of occupational therapy is to ensure a person's participation in everyday life, taking into account his or her capabilities, needs and environmental conditions.

### Basic principles:

- **Significance of action:** any activity that has personal value for the client can be therapeutic.
- **Goal setting:** therapy is built taking into account specific tasks arising from the client's needs and life context.

- **Adaptation of the environment:** the occupational therapist strives not only to develop abilities, but also to transform the environment to suit the client's capabilities.

- **Interdisciplinarity:** occupational therapy is implemented in a team with other specialists (psychologists, defectologists, speech therapists, doctors, parents).

The methodology is based on the concepts of functional systems development (Luria), sensory integration (Ayres), neuroplasticity, learning theory and behaviorism.

### **Characteristics of severe and multiple developmental disorders**

SMDDs are a combination of two or more persistent disorders in the structure and functions of the body, including mental retardation, cerebral palsy, hearing, vision, speech and behavioral disorders. Such disorders have an organic genesis and lead to significant limitations in everyday activities, self-care and communication. The complexity of the defect structure requires not only a multidisciplinary but also a transdisciplinary approach, when the boundaries between professions are erased in order to achieve a common goal - increasing the level of independence and inclusion of the child in life.

### **METHODS**

#### **Materials and methods of the study**

Participants: 10 children aged 5–6 years, with F72 diagnoses in combination with motor, sensory and behavioral disorders. All children had no previous rehabilitation experience.

#### **Methods:**

- Diagnostics using the AHA method (assessment of hand involvement in activities);
- JTHFT test (functional assessment of hand motor skills);
- Content analysis of video recordings;
- Method of formative pedagogical experiment;
- Interviews with parents and specialists.

**Procedure of the experiment:** The program lasted 3 months. It included individual lessons aimed at:

- sensory activation;
- training of grasping movements;
- teaching actions with household objects;
- modeling of everyday life situations;
- development of interaction with other children and adults.

### **RESULTS**

#### **Before the intervention:**

- inability to hold objects - in 90%;
- complete lack of initiative — in 80%;
- severe motor limitations — in all participants;
- underdeveloped visual-motor coordination;
- lack of productive play.

#### **After the intervention:**

- increase in the time spent holding objects by 2–3 times;
- appearance of directed movements — in 70% of children;
- improvement of emotional response, reduction of anxiety;
- increase in the number of episodes of involvement in joint activities.

The analysis of the dynamics demonstrated that even with severe mental retardation, it is possible to develop basic skills that underlie functional independence.

### **DISCUSSION**

The results obtained are comparable with international studies in the field of pediatric occupational therapy (Sterr, 2018; Buylova, 2020), confirming the high adaptability of the method. Occupational therapy has proven its worth as an alternative to formalized classes, which do not always take into account the motivation and characteristics of sensorimotor perception of children with SMND. The principle of "occupation through action" is becoming the most important tool for including a child in life, despite the severity of the impairment.

### **CONCLUSIONS**

1. Occupational therapy is an effective method of correctional and developmental work with children with SMND and should take its rightful place in the support system for this category.
2. An intervention program based on targeted actions contributes not only to the development of motor skills, but also to the formation of basic interaction skills.
3. The results confirm the need for early, intensive and ecologically sound interventions implemented in the family and in specialized institutions.
4. In Uzbekistan, professionalization of the field of "occupational therapy" is necessary within the framework of training specialists in special pedagogy and inclusive education.

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