DESIGNING REMEDIAL AND DEVELOPING WORK ON THE ENHANCEMENT OF THE EMOTIONAL-VOLITIONAL SPHERE IN MENTALLY RETARDED PRESCHOOLERS WITH AUTISM SPECTRUM DISORDERS

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Abstract: The article discusses the scientific, theoretical and practical foundations of the design of remedial and developing work aimed at overcoming the shortcomings in the development of the emotional-volitional sphere in mentally retarded children with autism spectrum disorders. The authors consider the approaches of scientists in Russian and foreign literature to this issue, analyze the most effective modern practices for overcoming disorders of the emotional-volitional sphere of children. The results of the experimental study presented in the article characterize the specific features of the emotional-volitional sphere. The authors designed a remedial and developing program for the enhancement of the emotional-volitional sphere of mentally retarded preschoolers with autism spectrum disorders and revealed the results of the extrapolation experience in the context of socialization of this category of children.

Keywords: design, emotional-volitional sphere, correction, remedial and developing program, children with special educational needs, mentally retarded preschoolers, autism spectrum disorders.

1 Introduction

In general, the current stage of development of Russian defectology and the service of psychological and pedagogical support for mentally retarded preschoolers with autism spectrum disorders is characterized by the urgent need to increase research attention to the study of the specifics of their emotional-volitional sphere as a determinant factor of mental development and social adaptation of children, and, as a consequence, the relevance of the development and implementation of resource support for the process of its development, directly focused on the category of "special" childhood under consideration. One of the ways to solve the existing needs can be the analysis of the experience of the professional community, where the available "focus" scientific research and the use of similar resources are supported by methodological justification and methodological developments.

Mental retardation, complicated by autism spectrum disorders, is one of the types of "multiple" disorders in dysontogenesis. According to E. R. Baenskaya, M. M. Liebling, O. S. Nikolskaya (2019) and other authors, autism and mental retardation in most cases occur together, forming a so-called complex defect that requires special approaches in remedial work.

Children with organic brain damage are characterized by emotional discomfort in contacts with people around them, even the closest ones, scarcity of emotional manifestations, insufficient use of facial expressions and gestures in communication. The combination of two defects greatly aggravates the typical personality characteristics of the considered category of children and, in general, hinders the full process of their social adaptation. Therefore, the socialization of a child with development disorders depends on the early onset of remedial action, in which various specialists of psychological and pedagogical support are involved with an active participation of parents. The complexity, integrity and consistency of remedial and developing work provide positive results in the cognitive and socio-personal spheres and social adaptation of children with disabilities.

The combination of autism spectrum disorders with mental retardation is not a mechanical summation of the signs of each of the disorders, but a qualitatively new phenomenon that requires a completely different approach and other methodological solutions. There is a tendency to increase the number of mentally retarded children who have a concomitant defect in the form of autism spectrum disorder, which emphasizes the need to find ways to improve their psychological and pedagogical support and indicates the relevance and timeliness of the research results presented in this article.

2 Literature Review

The term emotional-volitional sphere is used mainly in applied research when studying the regulation of particular types of activities in specific conditions and is defined as human properties that characterize the content, quality and dynamics of his emotions and feelings, including the ways of their regulation (Karpushkina & Vasyutina, 2019; Cibralic et al., 2019; etc.). The results of research indicate the exceptional importance of emotions and will with their identification with the key factors of mental development and adaptation of children in society (Joseph & Ittyerah, 2015; Lakhan, 2013; Matson & Shoemaker, 2009; Ogundele, 2018; Sturmey, 2002; etc.).

The ways of forming the emotional-volitional sphere of children in the Russian education system are presented in separate systems, programs, methodological complexes and are implemented in psychological, pedagogical and psychologicalpedagogical contexts. The analysis of these contexts of the formation of the emotional-volitional sphere of the child allows us to differentiate a number of approaches: the first one is determined by the requirements of the state and society for the upbringing and education of children - educational programs are formed as programs of psychological and pedagogical support for positive socialization and individualization, personality development of preschool children, which is impossible without purposeful formation of emotional-volitional processes of children (including remedial work and/or inclusive education of children with disabilities and handicapped children, mastering educational program in groups of combined and compensating orientation take into account the peculiarities of development and specific educational needs of each category of children); within the framework of the second one, partial programs of psychological, pedagogical and psychologicalpedagogical orientation are implemented, where game, relaxation, psycho-gymnastic, musical-meditative, emotionalsymbolic, art-therapeutic methods are used as resources; The third is represented by programs aimed at enriching the emotional sphere with the help of aesthetic, artistic, musical and theatrical means of influencing the child (Lebedinsky et al., 1990; Shipitsyna, 2005; Chaidi & Drigas, 2020; Sturmey, 2002;

${\bf 3} \ Research \ Methodological \ Framework$

The purpose of the study was to extrapolate the existing experience in the context of correction of the emotional-volitional sphere of mentally retarded preschoolers with autism spectrum disorders and to establish its pedagogical potential within the framework of purposeful remedial work in the designated area:

- to determine the degree of elaboration of the problem of the formation of the emotional-volitional sphere in modern research by means of a cluster study of publications;
- to study the features of the formation of the emotionalvolitional sphere in mentally retarded children with autism spectrum disorders;
- to develop a program of remedial and developing work on the formation of the emotional-volitional sphere in mentally retarded preschoolers with autism spectrum disorders;
- 4. to prove experimentally the effectiveness of the proposed program of remedial and developing work on the formation

of the emotional-volitional sphere in mentally retarded preschoolers with autism spectrum disorders in practice.

The research activity was based on the following methods: theoretical - analysis of scientific literature and pedagogical phenomena reflecting various aspects within the framework of correction of the emotional-volitional sphere of mentally retarded preschoolers with autism spectrum disorders; empirical generalization, systematization and interpretation of pedagogical experience in this field (both their own and the pedagogical community as a whole); pedagogical design; comparative analysis and synthesis of empirical data based on the results of approbation. The study was conducted on the basis of municipal preschool educational institution "Kindergarten No. 91 of compensating type", Saransk. Eleven children aged five to six years took part in it, four of whom were medically reported of having intellectual underdevelopment and early childhood autism, seven children - intellectual underdevelopment with autistic symptoms. All children who took part in the ascertaining experiment had the main defect "mental retardation" (F-70 according to ICD-10) (2019) complicated by disorders in the emotional-volitional sphere.

4 Results and Discussion

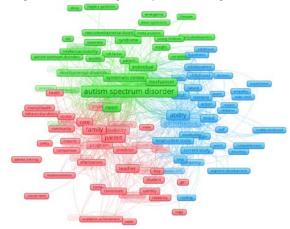
The specificity of emotional-volitional disorders in children with development disorders predetermined the allocation of a special approach to the formation of the emotional-volitional sphere. Within the framework of this study, a systematic search was carried out for publications of a scientific, scientific-methodical and educational-methodical nature, and which are primary reports on the development of the emotional-volitional sphere of children with special needs over the past ten years.

The query strings were entered into the Scopus bibliographic database, which provides continuous coverage of most international peer-reviewed journals in the field of special education and rehabilitation. The quoting records obtained in the second step were read into the program VOSviewer 1.6.10 (Van Eck & Waltman, 2014) for the construction and visualization of bibliographic networks. This software projects "nodes", such as publications, authors, or terms, in a two-dimensional space based on a normalized index of bibliographic similarity (i.e. the strength of references), such as the number of joint citations of two publications by a third, publications, or the number of times two terms occur together in one publication (Van Eck and Waltman, 2014). In addition, the program performs a weighted and parameterized clustering option based on modularity in channel strength in order to identify additional differences beyond those that can be obtained from two-dimensional scaling (Van Eck and Waltman, 2014). In order to reflect the subject under study in longitudinal studies of early development, a network of joint appearance of terms extracted as a result of processing titles and abstracts in natural language for nouns and combinations of adjectives and nouns was created. In addition, only terms that occur five or more times were included. The algorithm of the program ranks the found terms depending on the degree of systematicity or randomness of their coincidence, leaving only 60% of the most relevant terms. Terms were excluded if they related to longitudinal research, young children or mental retardation (since publications were already selected on this basis), if these terms described research methods (taking into account interest in the subject area) or if the terms seemed trivial (for example, the type of publication, statistical terms or the country of the study). The problems of these publications were extracted from the titles and annotations and subjected to multidimensional clustering (see Figure 1).

The green cluster consisted of 39 terms, and it was dominated by the terms "syndrome", as well as, although to a lesser extent, "disorder", "abilities" and "individual", which reflects the emphasis on the diagnosis of individual children. Early development was represented in this cluster by cognitive ("cognitive", "memory") and sensory-motor ("motor") areas. When searching for terms related to intervention and support,

only "patient", "identification" and "treatment" were found. Terms related to education are not found in this cluster.

Figure 1 The results of a cluster analysis of publications on the development of the emotional-volitional sphere of children with special needs over the past ten years in the Scopus database



Source: compiled by the authors

The blue cluster consisted of 32 terms dominated by the terms "autism", "autism spectrum disorder", and "skills", focusing on people with autism spectrum disorders and their skills. Early development was represented in this cluster by the spheres of cognition ("joint attention", "cognitive development", "learning"), communication ("language", "language development", "speech", "gesture", "vocabulary, "Word", "expressive language", "communication") and socio-emotional skills ("social interaction"). Terms related to intervention or support, or to education did not belong to this cluster.

The red cluster consisted of 44 terms, in which the terms "disability", "family", "parent" and "mother" prevailed, which reflected the family orientation. In this cluster, early development was represented only by socio-emotional skills ("friendship", "peer", "social competence", "social skills"). Searches for terms related to the areas of "intervention" and "support" have also been included in this cluster. For example, "effectiveness", "efficiency", "practice", "professional", "program", "services" and "support". The red cluster included terms related to education, such as "education", "school", "student", "special needs" and "teacher".

As a result of the analysis of the received request, priority was given to the works available in the National Bibliographic Database of Scientific Citation (Elibrary). The problems of these publications were extracted from the titles and annotations and subjected to multidimensional clustering. The topic of the development of the emotional-volitional sphere has the greatest representation in the field of studying children with special needs of primary school age. Some studies in the period of preschool childhood reflect the problems of blind and visually impaired children, children with mental retardation. Despite the worldwide trend of increasing research on the problems of complex developmental disorders in children, including combined defects - mental retardation and autism spectrum disorders, these clusters of research do not reflect any significant growth. The cluster of publications devoted to the study of emotions and will of mentally retarded children includes 44 works. Cluster of publications reflecting the problems of autism spectrum disorders – 45. The cluster of publications focused on the study of combined defects - mental retardation and autism spectrum disorders - 27. The number of dissertation studies, that is, works with a dominant focus of scientific research, is also small: on the problems of children with mental retardation - 18, on the problems of children with autism spectrum disorders - 10. Children with combined defects - mental retardation and autism spectrum disorders were not studied in the framework of "focus" studies.

The results of the cluster analysis allow us to generalize the opinion of numerous authors about the peculiarity of the development of mentally retarded preschoolers with autism spectrum disorders, which manifests itself, first of all, in the emotional-volitional sphere disorders, which is the main obstacle to the formation of a full-fledged, harmoniously developed personality capable of interacting with the outside world, successfully socializing in it.

Mentally retarded children with autism spectrum disorders have specific features of the emotional-volitional sphere due to the combination of two "nuclear" defects. This category of children is characterized by the scarcity of their own intentions, motives, great suggestibility - distinctive features in the "launch" of their volitional efforts. In general, the lack of arbitrary regulation of behavioral acts, rapid satiety, impulsivity are typical for activity. Emotions are characterized by superficiality, diffuseness, weakness, and they do not always correspond to real situations. As a rule, the emotional reactions and behavior of the child are unpredictable even in familiar everyday situations.

The feelings of mentally retarded preschoolers with autism spectrum disorders are unvaried, characterized by two extreme states of pleasure and dissatisfaction, characterized by instability, low differentiation, arise under the influence of a strong stimulus, their actions acquire an imitative, formulaic character. In most cases, the studied category of children is dominated by egocentric emotions, showing high appreciation only of significant and pleasant people for the child.

The volitional sphere of mentally retarded preschoolers with autism spectrum disorders is at a low stage of development. In this regard, they have difficulties in exercising control over their behavior, committed actions, actions are impulsive. Children of this category do not show initiative, cannot subordinate their actions to the requirements of adults, the community in which they are, do not set goals for themselves and do not strive to achieve them.

It should be noted that even with the general type of mental development disorder, each child with autism spectrum disorders has significant individual differences, also in emotional reactions. The complexity of violations of the emotional-volitional sphere of the category of children under consideration requires special approaches to the correction process from the subjects of psychological and pedagogical support. To identify the specifics of the emotional-volitional sphere of mentally retarded preschoolers with autism spectrum disorders at the preliminary stage of experimental research, the following methods were used: observation method, methods "Emotional faces" and "Study of understanding the emotional states of people depicted in the picture" (Semago, 2017), adapted taking into account the typological and individual characteristics of the subjects.

The experimental study took place from March to April 2021. The analysis of the data obtained enabled us to establish significant deviations in the formation of the emotionalvolitional sphere of mentally retarded preschoolers with autism spectrum disorders. Most of the children had difficulties in expressing their emotions, feelings in relation to what was happening, their superficiality, insufficient differentiation was observed. Self-aggression, negativism, increased anxiety, and suspiciousness were traced in the behavior of children. In preschoolers, a decrease in the sense of self-preservation, the threshold of emotional discomfort in the relationship with the outside world was revealed. In the play activity of children, along with the manifestation of activity, difficulties arose in understanding the instructions of an adult, distinguishing the emotional state of people around them by their gestures, body movements, facial expressions, which is the main reason for the manifestation of inertia, inadequacy of emotional reactions. All this has a significant impact on the emotional state, the violation of which is associated with increased excitability and irritability. Children have a low level of motivation for play activities, insufficient volitional regulation, which leads to lack of

initiative, suggestibility, and passivity in the process of performing productive activities.

When starting to perform diagnostic tasks of the abovementioned methods, 54.5% of mentally retarded preschoolers with autism spectrum disorders freely made contact; the rest of the children needed a preparatory conversation aimed at preparing children for the process of completing the task. It was found that some preschoolers (36.4%) had great difficulties in recognizing emotions, up to the complete inability to identify them, despite the fact that bright realistic images were offered. Some preschoolers (36.4%) had an inadequate reaction to the proposed images, manifested in self-aggression, prolonged fixation on certain parts of the face, mainly teeth. Preschoolers rated such a face as evil, even if it was a smile. In the process of completing the task, 9% of children were characterized by increased distraction, restlessness; they then walked aimlessly around the room, and then started the task again. Qualitative characteristic: mentally retarded preschoolers with autism spectrum disorders are characterized by increased anxiety, a low level of imagination development, in most cases they cannot adequately determine the emotional state, difficulties arise in recognizing human emotions. Some subjects could differentiate emotions only with the help of an adult. It was especially difficult for them to recreate the emotions depicted in the photographs, most of them could not cope with this task.

The complexity of disorders of the emotional and volitional sphere of the category of children under consideration requires special approaches to the correction process from the subjects of psychological and pedagogical support. Remedial work with this category of children is based on complete individualization with a constant restructuring of the educational trajectory. In order to perform any task, to perform a certain type of activity, preschoolers need constant support from an adult, guiding help, motivating the child to achieve the final result, bringing what has been started to the end.

Researchers (Morozov et al., 2016; Gordeeva, 2018; Evlampieva, 2017; Kisova & Komkova, 2019; etc.) emphasize that the lag in the development of the cognitive sphere, difficulties in assimilation of socially accepted forms of expression of emotions, lack of formation of behavior motives in mentally retarded preschoolers with autism spectrum disorders significantly complicate their independent mastery of emotions and volitional regulation of behavior. As a result, there is a need for special remedial and developing work with this category of children. In the case of a combination of mental retardation and autism spectrum disorders, the pedagogical problems of each of the components of a complex disorder reinforce the problems of the other. Autism spectrum disorders do not allow the full use of traditional methods of oligophrenopedagogy, such as imitation training and personality-oriented motivation, and the presence of mental retardation, in turn, greatly complicates the formation of the affective meaning of surrounding objects and phenomena, and also limits the possibility of using emotionally oriented methodological approaches to the correction of autism. The combination of autism spectrum disorders with mental retardation is not a mechanical summation of the signs of each of the disorders, but a qualitatively new phenomenon that requires a completely different approach and other methodological solutions (Lebedinsky et al., 1990, p. 14).

To level out the developmental disorders presented above, we have designed a program of remedial and developing work. At the same time, under the technology of pedagogical design, we understand a certain algorithm of sequential and continuous movement of interrelated elements or stages of the educational process, a program of actions of its participants. It consists of three stages: modeling, design, construction (Lebedinsky et al., 1990, p. 153).

The program of remedial and developing work on the formation of the emotional-volitional sphere in mentally retarded preschoolers with autism spectrum disorders. Remedial work was carried out taking into account the principles of consistency, complexity and integrity. The system principle was implemented

in the course of providing psychological and pedagogical assistance to children, specialists of preschool educational organizations (educators, speech therapist, psychologist, defectologist) and parents. The assistance was implemented simultaneously, the efforts of significant adults were coordinated and coordinated with the special needs of the child.

The complex nature of the remedial and developing work consisted in the fact that the specialists of the educational organization (psychologist, speech therapist, defectologist, educators), parents provided the child with joint assistance, covering all areas of his activity. Remedial and pedagogical assistance extended to the emotional-volitional, cognitive, motor spheres, optimizing social ties and relationships of subjects of correctional work. The child received the necessary help, was involved in various activities, the success of his education, development, and interpersonal relationships is monitored.

The principle of integrity was used in the work, since it was supposed to include various forms, methods, means, didactic and psychotherapeutic techniques.

The implementation of these principles was carried out in close interrelation of all specialists of the preschool educational organization in working with mentally retarded children with autism spectrum disorders.

All the work carried out can be divided into three blocks: diagnostic (conducting a psychological and diagnostic examination using various methods and techniques), remedial developing (conducting group correctional and developmental classes) and analytical (evaluating the results of classes conducted through repeated diagnostic examination). The program includes the correction of anxiety, aggressiveness, and purposefully forms the "language of emotions" in preschoolers: expands the understanding of basic emotions, develops the ability to convey emotional states through the use of various expressive means (verbal and nonverbal). As part of the program, it is planned to conduct subgroup (individual) classes on the development of the emotional sphere of children once or several times a week. The content of the program is based on the use of elements of sand therapy, game therapy, art therapy, music therapy, etc. This approach contributes to the enrichment of emotional experience, harmonizes the emotional and moral sphere, actualizes the "zone of immediate development" of a preschooler. The emotional background that an adult creates when reading a fairy tale, the change of the characters' voices, the reflection on the teacher's face of the emotional states of the fairy tale characters - all this contributes to the fact that the child unconsciously begins to "reflect" on his face the feelings that he experiences when listening to a fairy tale. During the lessons, techniques of analyzing fairy tales, telling fairy tales, preparing a fairy tale with the help of dolls, playing fairy tales by roles, creating illustrations for a fairy tale are used. These techniques are a good means of expanding the emotional experience of mentally retarded preschoolers with autism spectrum disorders and a way to form the regulation of their behavior. The originality of this program lies in the author's transformation of the resource provision of work on the formation of an emotional-volitional sphere with a direct focus on the category of "special" childhood under consideration, as well as in the inclusion of innovative resources that were not previously used in working with mentally retarded preschoolers with autism spectrum disorders.

At the end of the formative experiment, a control experiment was conducted. We needed to find out to what extent the proposed guidelines influenced the level of formation of the emotional-volitional sphere in mentally retarded preschoolers with autism spectrum disorders. To do this, the results obtained before and after the experimental training were compared.

The control experiment included two experimental series. The first one involved the registration and collection of data on the emotional-volitional manifestations of the subjects, the second series provided for an assessment of the formation of an understanding of people's emotional states.

Analysis of the results of the first series of experimental research showed that the identification of pictorial images of emotional states: "Joy", "Grief", "Anger" do not cause special difficulties in children. The most difficult to perceive were pictorial images of emotional states: "Fear", "Sadness", "Happiness". Thus, out of the entire sample of subjects, 63.6% perceive pictorial images of emotional states, 36.4% do not perceive them. The results of a study of awareness of their own emotions of the subjects can be represented as follows: from the total sample of subjects 72.7 per cent are aware of their emotions, 27.3 per cent are not.

The empirical data analysis of the second series of experimental studies showed that 45.5% of children understand the emotional state of adults and peers, and 54.5 % of the subjects in this understanding was not available, or were perceived to a lesser degree.

Summarizing the data obtained in the control experiment, we, similarly to the ascertaining experiment, conditionally divided the entire composition of mentally retarded preschoolers with autism spectrum disorders into three groups according to the levels of formation of the ability to differentiate emotional states. A positive result of the study is the redistribution of mentally retarded preschoolers with autism spectrum disorders according to the levels of development of skills to differentiate emotional states.

Thus, the results of the control experiment showed that preschoolers, after conducting targeted training, coped more successfully with the performance of experimental tasks. As evidenced by noticeably higher quantitative and qualitative indicators of the performance of these tasks.

Within the framework of the study, the following approaches were identified to the logic of the activity of designing remedial and developing work on the development of the emotional-volitional sphere in mentally retarded preschoolers with autism spectrum disorders (allowing to reveal its essence taking into account the target, substantive, organizational-procedural and evaluative-effective components, as well as to justify the pedagogical conditions for the effective implementation of this work):

- diagnostics of reality is based on the consideration of a practical problem - a set of contradictions that should be resolved, which implies the definition of a strategy and a way to solve the problem, the establishment of a final goal and its achievement;
- development / transformation of reality definition of the concept of the program of remedial and developing work, that is, the establishment of design goals in certain criteria, the formation of an algorithm with hypotheses of achievability / unattainability, modeling, creation and analysis of alternatives to solutions, the choice of effective design methods;
- development of ways to manage the implementation of the project; - planning the implementation of the strategy, that is, tactical programming of activities: detailing goals with the establishment of a stage, confirmation of conditions and resources, development of directions and methods of necessary internal and external interactions;
- implementation of the project based on feedback, analysis of the implementation process, interchange, regulation and adjustment of planned operations in the communication process, etc.;
- comprehensive examination of the results of the project, the establishment of subsequent remedial actions for the development of the project.

Remedial and developing work with this category of children is based on full individualization in accordance with the needs of the child himself and the requests of his parents with a constant restructuring of the trajectory of movement for the development of the program, therefore, when designing, it is assumed to take into account such factors as: the peculiarities of the individual psychological sphere of children; the degree of formation of

social and cognitive motives; individual pace and speed of progress; the potential for transformation of resource provision.

The novelty of the proposed approaches is justified by the proposal of those design resources that can potentially improve the designated process.

5 Conclusion

Pedagogical design of any process or phenomenon provides a holistic, systematic representation of the object under study, taking into account systemic and activity approaches; its application in pedagogical research enables theoretically substantiating the essence of the process under consideration, structuring it, substantiating the connections between the components and presenting it in a generalized form.

The value and significance of the data presented in the article is determined by the fact that the authors summarized and interpreted the results of an experimental study of the emotional-volitional sphere of mentally retarded preschoolers with autism spectrum disorder, and characterized the theoretical aspects of the study of this problem. The data obtained during the experimental work provide an opportunity to determine the scientific, theoretical and practical foundations of remedial and developing work aimed at overcoming shortcomings in the development of the emotional-volitional sphere in mentally retarded children with autism spectrum disorders.

The author's materials can be used in research and practiceoriented activities of subjects of psychological and pedagogical support of preschoolers of this category of "special" childhood.

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