



Rehabilitation of Children and Adolescents with Deviant Behavior and Neurosis-Like Pseudoneurasthenic States of Residual Organic Genesis

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Abstract

The article presents the content and modes of treatment and rehabilitation of children and adolescents with related neuropsychiatric disorders accompanied by behavioral abnormalities. The complexity and ambiguity of solving this problem by many researchers, as well as the tendency to deepen the understanding of the content, means and methods of rehabilitation of children and adolescents in various directions related to school and social and labor maladjustment, risk factors for various forms of behavioral disorders, were noted. The general trend is to develop and carry out for this contingent of sick children and adolescents not only effective drug therapy, but also special measures for their sufficient social adaptation in the future. On the basis of methodological and organizational principles, which include partnership, comprehensiveness of influence, the unity of psychosocial and biological methods of influence, the sequence of rehabilitation measures, the implementation of a systemic approach to the rehabilitation of children and adolescents with deviant behavior and neurotic-like pseudoneurasthenic states of residual organic genesis is revealed. On the basis of the results of the examination and the identification of the causes of the formation of behavioral disorders of 576 children and adolescents aged 7 to 17 years, developed and tested medically differentiated rehabilitation regimens are given, the effectiveness of which is confirmed by the final examinations and the 1-3-year catamnesis of 438 children and adolescents or 76.0 % of the total number who received a full course of restorative therapy and correction of behavioral disorders.

It was concluded that the results of restorative therapy and correction of behavioral disorders of children and adolescents with deviant behavior and neurotic-like pseudoneurasthenic states of residual organic genesis require further stabilization of positive premorbid traits in family relationships. In this regard, it is important to further correct the communication difficulties of adolescents in social and psychological training for the formation of self-regulation skills in establishing and maintaining positive relationships with peers and significant adults.

Keywords: Rehabilitation Regimens; Drug Therapy; Behavior Correction; Neuropsychiatric Disorders; Psychosocial and Biological Methods; Therapeutic Pedagogy; Supportive Therapy; Self-Regulation Skills; Positive Premorbid Traits

Introduction

Rehabilitation of children and adolescents with related neuropsychiatric disorders, accompanied by behavioral abnormalities, is an actual and promising direction of research, which has not been fully implemented until now. A significant number of works, which testify to the complexity and ambiguity of solving this problem, contribute to the study of the content, means and methods of rehabilitation of children and adolescents in various directions. Issues related to school and social and labor maladjustment, risk factors for the occurrence of various forms of behavioral disorders are most often discussed. In this way, an opinion was formed about the need to carry out not only effective drug therapy for this contingent of sick children and adolescents, but also the development of special measures for sufficient social adaptation.

In particular, researchers Bryant-Davis, et al. [1] consider spirituality and religion as important but often neglected areas of clinical research. However, according to the mentioned authors, although these studies demonstrate the importance of religious and spiritually competent caregiving, most of the studies involved relate to adults and focus less on how children and adolescents use these constructs.

The transition to institutional care for children and adolescents with deviant behavior often involves separation from a dysfunctional environment marked by neglect, abandonment, and emotional insensitivity, as highlighted in a study by Mota, et al. [2]. The quality of relationships established with significant others in the institution, as well as with teachers, is suggested as a protective factor for the development of resilience and disengagement from deviant behavior. This study explores possible ways to test the predictive influence of the quality of relationships with caregivers and teachers on the development of resilience and correction of deviant behavior in institutionalized adolescents in a sample of 202 adolescents aged 12–18 years.

Carroll A, et al. [3] report the results of two studies designed to measure and then examine differences between the orientations of offenders, nonoffenders, and youth risk groups in terms of reputation improvement. In the first study of item selection and scale development, the factor structure and content validity of a potential self-esteem scale were tested by examining responses to scale items completed by 230 high school students. In a second study, the scale was validated by comparing the responses of 80 delinquent, 90 at-risk, and 90 non-delinquent adolescents to the responses of elementary students. The result was found to be reliable (0.64 to 0.92), indicating that the factors are reliable across samples, and the congruence coefficients were high enough to examine significant group differences. Three

second-order factors (relevant reputation, inappropriate reputation, self-presentation) were derived from 15 first-order factors. Although multivariate analysis revealed significant differences between the reputational orientations of offenders, at-risk groups, and non-offenders, the second-order factor of self-presentation did not differentiate the three groups.

The influence of deviant peers on youth behavior in both natural peer interactions and interventions that may inadvertently exacerbate deviant development is revealed in Dishion, et al. [4]. It focuses on understanding the moderating and mediating variables that explain the effects of peer contagion in youth interventions and proposes an ecological framework to disentangle the influence of individuals, group interactions, and program contexts in understanding the effects of peer contagion.

The experience of the rehabilitation of deviant behavior in the social school “O Companheiro”, which provides an alternative to the penitentiary system, reveals the research of de Almeida Brites, et al. [5]. The association “O Companheiro” is a Portuguese social institution of solidarity that intends to provide an integrated response to the needs of prisoners, ex-prisoners and their families. The social school was created as part of “O Companheiro”, providing one possible alternative to the prison system. The social school has two main goals: the prevention of deviant behavior and the rehabilitation of those who engaged in criminal activity, contributing to their successful integration, but it did not provide for the treatment and rehabilitation of neuropsychiatric diseases.

Instead, a study of natural activities in children up to 6 months after mild traumatic brain injury by Renaud, et al. [6] divided indicators into deviant (not the maximum indicator) and full functioning of 231 children. Based on the parent’s perspective, 67% of children returned to full functioning 6 months after injury, and only 38% of children described themselves as functioning at their premorbid level. The results show that most children return to their maximum level of activity, but a significant number of children are rated as having lower levels of activity and participation than their peers at 6 months post-injury.

Literature Review Donovan R [7] examines the history of the juvenile justice system and its efforts to support the juvenile rehabilitation model. The implementation of art therapy with juvenile offenders is considered as an expressive method of strengthening psychiatric care in these institutions. Various art therapy directives have been explored for this population to help juvenile offenders improve self-esteem, develop strengths, connect with society and each other while working through their trauma. The cited studies show that the problem of medical-pedagogical

correction of the specified contingent of sick children and adolescents can be solved comprehensively only under the condition of qualified therapy, preservation of social contacts and the possibility of education.

Rehabilitation Regimes

Implementation of a systemic approach to the rehabilitation of children and adolescents with deviant behavior and neurotic-like pseudoneurasthenic states of

residual organic genesis was carried out on the basis of methodological and organizational principles, which include partnership, comprehensiveness of influence, unity of psychosocial and biological methods of influence, sequence of rehabilitation measures. Based on the results of the examination and identification of the causes of the formation of behavioral disorders of 576 children and adolescents aged 7 to 17 years, we have developed and verified medically differentiated rehabilitation regimens, listed in Table 1.

No	Name	Content of treatment and rehabilitation measures	Notes
1	Mode A	Complex medical influence: biological, psychopharmacological and physiotherapeutic methods of treatment, remediation of centers of chronic infection, physical therapy	
2	Mode B	Predominantly medicinal influence and medical and pedagogical correction	Therapeutic and pedagogical correction includes individual corrective classes
3	Mode C	Mainly psychotherapeutic correction and therapeutic pedagogy, supportive therapy.	Supportive therapy includes occupational therapy

Table 1: Medically differentiated rehabilitation regimes.

As can be seen from Table 1, rehabilitation regimes include medical, pedagogical and psychological measures, the sequence and importance of which changes according to the clinical condition of children and adolescents.

Restorative Therapy and Correction of Behavioral Disorders

At the first stage of rehabilitation, which was called the stage of restorative therapy, regimes A and B were used to reduce the severity and eliminate the phenomena of decompensation of cerebrasthenia and behavioral disorders. For children and adolescents with pronounced decompensation of cerebrasthenic syndrome and deviant behavior, as well as for children and adolescents who have experienced repeated biological harm, we considered it appropriate to use only regimen A. Its essence consisted in intensive pharmacological therapy, methods of physiotherapeutic influence and therapeutic physical education. The complex of medical measures was carried out under the conditions of a gentle regime, which ensured the dosing of the time of educational classes and occupational therapy to 30-35 minutes, the cancellation of educational tests and exams.

The treatment was carried out comprehensively. Children and adolescents with decompensated cerebrasthenic syndrome used tonics: vitamins of group B, calcium glycerophosphate, aloe syrup with iron. Dehydration therapy

under the control of blood pressure included a solution of magnesium sulfate 25%, dicarb, glucose, diuretic tea, and a mixture containing citral. The course of dehydration therapy was combined with the simultaneous use of potassium and calcium preparations and resorbing agents in the form of aloe, vitreous body, lidase. In order to improve the trophism, in particular of the hypothalamus, biogenic stimulators were used, which improve the metabolism of brain processes. All medications were prescribed in age-appropriate dosage.

To eliminate cerebrasthenic phenomena, we used a medical drug from the group of small regulatory peptides-dalargin, which actively affects mental activity by developing compensation reactions, enhances the function of inhibitory interneurons, and reduces the excitability of the central nervous system. As a result of course treatment with dalargin, favorable dynamics of mental functions were observed, in particular, reduction of irritable weakness, increase of work capacity, reduction of hyperactivity and increased excitability.

The use of pathogenetic therapy for children with cerebral residual organic insufficiency and significant behavioral disorders was complemented by the differentiated appointment of psychotropic drugs that correct behavior. Electrotherapy was widely used. The special effectiveness of electric sleep was noted in sick children and adolescents with pronounced phenomena of cerebrasthenia, which were manifested in increased fatigue, irritability, and sleep

disturbances.

In the rehabilitation work, physical therapy was of great importance, which strengthened the emotional and volitional sphere and exerted a strengthening effect on the body of sick children and adolescents. Physical therapy classes improved work capacity, helped to overcome manifestations of motor immaturity, hypodynamism, and motor disinhibition.

The schedule of physical therapy classes was developed by physical therapy instructors together with doctors who managed the respective patients. This made it possible to develop lesson plans taking into account physical differences, clinical variants of diseases, and characterological features. Groups were formed with a quantitative composition of no more than 10 people. It was not recommended to include in the group more than one sick child with a decompensated psychopathic state and a tendency to affective reactions. In some cases, individual lessons were planned and conducted for such children. Regardless of the type and severity of disease manifestations, special attention was paid to preserving the physiological curve of activities - a gradual increase followed by a decrease in load. In parallel with physical therapy classes, rhythmic classes were held, which also provided for a gradual increase followed by a decrease in physical load.

For the correction of pathocharacterological reactions, decompensation of the psychopathic syndrome, we used modes B and C. These modes were characterized by the mandatory use of medical and pedagogical correction against the background of drug treatment. Therapeutic and pedagogical correction was aimed at improving relationships in the group, establishing contacts with peers, improving family attitudes, and possibly correcting incorrect upbringing. Therapeutic-pedagogical correction of children and adolescents with increased affective excitability was combined with involvement in games and activities that cause expressed emotional interest and culminate in results that are easy to evaluate.

Results and Discussion

For group correction and intragroup assessment of results, group psychotherapy was used, which was used to correct inappropriate behavior. Among the total number of children and adolescents in patients with behavioral disorders, the insignificant effect of group psychotherapy has increased the urgency of developing effective measures of a therapeutic nature, based on the clinical patterns of resistance to therapy that have formed. In particular, the

so-called pharmacogenic resistance turned out to be the most common among this contingent of sick children and adolescents as a result of long-term psychopharmacological influence.

In this regard, for children and adolescents with initial or unexpressed manifestations of behavioral disorders, as well as after the elimination of pronounced behavioral disorders, regimens B and C were most effectively used. Treatment and rehabilitation measures of these regimens mainly included individual and microgroup, up to 3 of persons, exercises and sessions of medical pedagogy, psychotherapy, occupational therapy. This made it possible to take into account the personal characteristics of patients. According to our surveys, adaptive capabilities were significantly reduced in 183 children and adolescents with characterological traits and states of insecurity, anxiety, and timidity (asthenohypodynamic variant), or 31.7% of the total number. Pedagogical correction and psychotherapy were used for this contingent of children and adolescents aimed at overcoming feelings of inferiority, self-doubt, indecisiveness, tendency to doubt, and states of despair. For this purpose, systematic incentives were used in connection with any successful completion of tasks, involvement in the fulfillment of messenger requests and errands of adults, not associated with increased stress and responsibility.

The one-year stay cycle of the named group of children and adolescents with deviant behavior and neurotic-like pseudoneurasthenic conditions of residual organic genesis in a medical and rehabilitation facility of round-the-clock care made it possible to reveal a significant improvement, which consisted in the complete disappearance of behavioral disorders in 93 patients or 16.1% of the total number; moderate improvement, which consisted in reducing the severity and frequency of behavioral disorders in 367 or 63.7% of patients; partial improvement - in 83 or 14.4% of patients; no improvement or minor changes were noted in 33 patients or 5.7%. It should be noted that the lack of improvement determined by us based on the results of the annual examination did not mean the absence of positive changes in age-related development, which consisted in increasing the meaningfulness of actions, improving hygienic self-care skills, reducing aggressiveness in relationships, etc. It was important for each child and their parents or substitutes to notice these positive changes and develop a future treatment and rehabilitation program based on them. The generalized results of the effectiveness of the annual cycle of restorative therapy and correction of behavioral disorders are presented in Table 2.

No	Effectiveness of treatment and rehabilitation measures	Number of patients	As a percentage of the total amount	Note
1	Complete disappearance of behavioral disorders	93	16,2	
2	Moderate improvement	367	63,7	
3	Partial improvement	83	14,4	
4	No improvement or little change	33	5,7	
	Total:	576	100	The asthenohypodynamic variant of behavioral disorders was corrected in 183 children and adolescents or 31.7% of the total number.

Table 2: Results of the annual cycle of restorative therapy and correction of behavioral disorders children and adolescents with deviant behavior and neurosis-like pseudoneurasthenics states of residual organic genesis.

As can be seen from Table 2, the results of restorative therapy and correction of behavioral disorders of children and adolescents with deviant behavior and neurotic-like pseudoneurasthenic states of residual organic genesis reflect the annual dynamics of their variability, which requires further stabilization of positive premorbid traits in family relationships. In this regard, we recommended further correction of communication difficulties of adolescents in social-psychological trainings for the formation of self-regulation skills in establishing and maintaining positive relationships with peers and significant adults. Catamnesis, which indicates satisfactory adaptation within 1-3 years to educational and other types of activities, was tracked in 438 children and adolescents or 76.0% of the total number, who received a full course of restorative therapy and correction of behavioral disorders.

Conclusion

Rehabilitation of children and adolescents with related neuropsychiatric disorders accompanied by behavioral abnormalities is an actual and promising area of research to which a large number of works are devoted. The complexity and ambiguity of the solution of this problem by many researchers allows deepening the understanding of the content, means and methods of rehabilitation of children and adolescents in various directions, related to school and social and labor maladjustment, risk factors for the emergence of various forms of behavioral disorders. This contributes to the development and implementation of not only effective drug therapy for this contingent of sick children and adolescents, but also special measures for their sufficient social adaptation in the future.

Based on methodological and organizational principles, which include partnership, comprehensiveness of influence, the unity of psychosocial and biological methods of influence, the sequence of rehabilitation measures, our

study revealed the implementation of a systemic approach to the rehabilitation of children and adolescents with deviant behavior and neurotic-like pseudoneurasthenic states of residual organic genesis. Based on the results of the examination and the identification of the causes of the formation of behavioral disorders of 576 children and adolescents aged 7 to 17 years, we developed and tested therapeutically differentiated rehabilitation regimens, the effectiveness of which was confirmed by the final examinations and 1-3-year catamnesis of 438 children and adolescents or 76.0 % of the total number who received a full course of restorative therapy and correction of behavioral disorders.

The results of restorative therapy and correction of behavioral disorders of children and adolescents with deviant behavior and neurosis-like pseudoneurasthenic states of residual organic genesis require further stabilization of positive premorbid traits in family relationships. In this regard, it is important to further correct the communication difficulties of adolescents in social and psychological training for the formation of self-regulation skills in establishing and maintaining positive relationships with peers and significant adults.

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