

© N.V. LOGINOVA, A.A. ZHUSHMAN, E.V. MELNIKOVA,  
E.F. TUROVININA

zhushman\_aa@mail.ru

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**THE ISSUES OF THE INTERDEPARTMENTAL COOPERATION  
ON THE COMPLEX REHABILITATION OF YOUNG CHILDREN WITH  
HEALTH PROBLEMS AND DEVELOPMENTAL DISORDERS**

*ABSTRACT.* This article is devoted to the assessment of the prevention system of children's disability in the Tyumen region aimed at improvement of the available rehabilitation services for children with health and developmental problems.

There are currently 23 services providing primary care for children with health and developmental problems and their families on the territory of the city of Tyumen and the south of the Tyumen region. These rehabilitation services cover 3940 children with deviations in development and health. Assistance can be rendered both in special institutions and at children's homes.

Rehabilitation services include medical (massage, medical and adaptive physical exercises, physical therapy), psychological and logaedic assistance. Family members of disabled child are taught the basics of social and medical rehabilitation at home; social and medical patronage of the families is carried out. Consequently, the common rate of disabilities among 0-3-year-old children has decreased from 49 to 39,1 per 10,000 children.

*KEY WORDS.* Disability, prevention, children at an early age.

Over the last decade unfavorable demographic processes in our society have been accompanied by drastic health deterioration among young children [1]. Disability of children imposes a significant limitation on their living activity and promotes social maladjustment, which is conditioned by developmental disorders, difficulties with independent living skills, communication, education and acquisition of professional skills in the future [2].

We observe growth of children's disability in all the developed countries. Nowadays it approaches 5-6% [3]. In our country each year brings more children with serious inborn and acquired disorders, which lead to absolute disability. This is connected not only with the negative moments: environmental degradation, decrease in the standard of life, growing alcohol addiction of the population, but also with such a positive phenomenon as improvement of the quality of medical care [4]. As a result of the development of innovative technologies in the sphere of care for immature and low birth weight babies rehabilitation services face new super-complicated challenges of both child disability prevention and subsequent rehabilitation.

The level of primary disability of children up to 18 years of age kept steadily growing in Tyumen region beginning from 2007 to 2010 and was above the average level both in Russia and the Ural federal region [5].

It is difficult to estimate the degree of functional disorders for young children, especially babies. Out of all children who required rehabilitation therapy about one third occurred with disabling conditions. With age rehabilitation potential decreases which is aggravated by the co-existing diseases, developmental delays and deviations in the psychophysical development [6].

Babyhood is a unique time period during which, under the condition of prompt and appropriate treatment, therapeutic effect is the most positive. With age the child's rehabilitation potential decreases which is accompanied by a considerably small response to the therapy [7]. At the age of 3-4 the child is characterized by the biggest potential regarding physical, cognitive, emotional and social development. An early start of the rehabilitation process is a precondition for the future success.

Thus, the necessity to improve the existing system of early social and medical assistance rendered to the children with developmental disorders becomes obvious. The system of early assistance can embrace as many children with developmental disorders at an early stage of their ontogenesis as possible, thus providing a basis for the timely prevention of secondary developmental disorders, maximally effective correction of the existing problems regarding the interaction of the child with the surrounding environment as well as optimal inclusion of the parents into the correction therapy [8]. It is well known that early detection of developmental disorders among children and prompt therapy can change the child's fate even with serious inborn psychophysical disorders [9].

**Aim:** to define the ways of improvement for the regional system of early assistance rendered to children with developmental and health disorders.

**Materials and methods.** In this research we used the materials of the official statistics and reporting documentation of the Health Care Department of Tyumen region, social care institutions in Tyumen region and primary social-medical documentation.

The subject matter of the research is children receiving medical and social rehabilitation. Overall 3940 children with developmental and health problems have enjoyed rehabilitation services for the period of three years.

The object of the research is the system of early assistance to the children with developmental and health disorders existing in Tyumen region.

The statistical and analytical methods of research have been employed in the given work.

**Research findings:** For the purpose of children's disability prevention and improvement of the system of early assistance to the children with developmental and health disorders existing in Tyumen region there is a "Program for provision of medical and social assistance to young children with developmental and health disorders "The first step" in 2010-2012" (hereinafter – Program), which was developed and approved by the order of the Government of Tyumen region dating 03.11.2009 No. 1570 pn (edition 22.08.2011 No. 1427-pn).

41 health care institutions and 27 social service institutions in Tyumen and the south of Tyumen region have taken part in the organization of work aimed at detection and medical-social assistance provided to children with disorders.

“The Order of the interaction of the health and social care institutions in Tyumen, Ishim and Tobolsk on detection and medical and social assistance rendered to young children having developmental and health disorders” approved by the joint order of the Department of Social Development in Tyumen Region dating 22.04.2010 No. 103-n and the department of Health Care in Tyumen Region dating 28.04.2010 No. 247 has been developed and introduced within the framework of provision of organizational activity for the services engaged in early aid programs (in 2011-2012 a similar process was introduced in 20 municipal organizations in the region).

According to this normative-methodological document medical obstetrician and child caring institutions detect children with developmental and health disorders and then forward the register of all the children aged 0-6 months to the services of early aid. The data on the children aged 1-3 years old are forwarded to the services of early aid by the medical and rehabilitation institutions progressively as any disorder is identified.

Nowadays the services of early aid to children with developmental and health disorders function in the following cities and administrative areas: Tyumen, Ishim, Tobolsk, Zavodoukovsk, Yalutorovsk, Abatskiy, Armizonskiy, Aromashevskiy, Berdyuzhskiy, Vagayskiy, Vikulovskiy, Golyshmanovskiy, Isetskiy, Kazanskiy, Nizhnetavdinskiy, Omutinskiy, Sladkovskiy, Sorokinskiy, Tyumenskiy, Uvatskiy, Uporovskiy, Yurginskiy and Yarkovskiy.

The service involves such rehabilitation physicians as: pediatrician, neurologist, physiotherapist, nurse massage therapists, physician and instructor on medical exercise therapy and adaptation training, ergotherapist, family curator, social educator, psychologist and speech therapist.

The main areas of activity of the early aid services are the following: development and correction of the individual course of social and medical rehabilitation, organization and carrying out of therapeutic and preventive events (massage, medical exercise and adaptation training, physiotherapy), provision of psychological and speech therapy, instruction of the family members on the basics of home social and medical rehabilitation and social and medical support of the family.

1022 families with children aged 0-1 and children with serious systemic diseases are serviced weekly by the territorial early aid services. The service includes examination of the social and living conditions, family problems diagnostics and parents’ instruction on the child nursing and rearing.

The Autonomous Institution of Social Service of the Population of Tyumen Region “The Regional Center of Rehabilitation for People with Disabilities” is running a complex rehabilitation course “The First Step”. 200 toddlers (1-3 years of age) with developmental and health problems have taken a course of complex social, medical, psychological and pedagogical rehabilitation. The rehabilitation course includes a number of rehabilitative activities combined into cycles (8-10 exercises) on speech correction, psychotherapy, therapeutic physical exercises, medical massage, physiotherapy, therapeutic pedagogy etc. Within the complex social and pedagogical rehabilitation the family of the child with developmental and health problems received initial and subsequent consultations of the social worker, pediatrician, psychologist, instructor on adaptation and therapeutic physical activity. The lawyer provided legal advice. The child attended classes in the sensory room.

The parents had psychological training and consultations. The exercise physiologist organized for the child gymnastics classes in the gym. Besides, the complex social-pedagogic rehabilitation included classes in isotherapy, music therapy, play therapy and ergotherapy as well as correction therapy with the speech therapist. The interdisciplinary team of specialists carried out educational activities with the parents on their interaction with the child: "Child safety", "Organization of housekeeping and use of technical means of rehabilitation", "Specific features of the child's physical development", "Communication technologies", "The child's sensory and cognitive development technologies".

At the end of the rehabilitation course 100% children and their parents have noted improvement of their emotional and cognitive sphere; 93% children admitted improvement of the communicative skills; 89% children demonstrated improvement of their motor skills.

The most important effectiveness criterion for the early aid services is development of certain mental frameworks by the parents regarding their participation in assistance to their children and the way how this assistance should be organized [10]. In connection with this the next stage of the program aimed at prevention of children's disability is launching of "Parents' academies" and "Schools of health" in the health care and social development institutions where the parents are taught the skills of medical and social, psychological and pedagogical assistance. Highly qualified physicians and educationalists organize classes on different subjects demonstrating practical nursing skills and rehabilitation methods and giving out leaflets for parents. Parents also attend private interviews, receive recommendations on child care, daily routine, diet, cold training, physical and neuro-psyche development. Training of the parents of children suffering from developmental and health disorders in the sphere of medical, social, psychological and pedagogical assistance is carried out both in health care institutions and in the social service and educational establishments. In medical clinics the parents are instructed on child care, daily routine, diet, cold training, physical and neuro-psyche development.

In the social service establishments they are consulted on the psychological, pedagogical and family issues; taught the techniques and methods of home rehabilitation. Parents take an active part in the rehabilitation activities organized for their children, take distance training and receive recommendations on-line.

Thus, 45% parents out of all the parents participating in the rehabilitation process have mastered massage and therapeutic training skills; 95% use the acquired practical skills on motor development and self-service with their children at home.

Involvement of various educational forms in the process of parents instruction has made it possible not only to increase the rehabilitation competence of the parents but also provide continuity of the carried out rehabilitation activities. 1607 families have completed training under the programs of "Parents' academy" since beginning of the Program.

For the three years of the "Program for provision of medical and social assistance to young children with developmental and health disorders "The first step" in 2010-2012" 3940 children with developmental and health problems have enjoyed rehabilitation services, including those at home.

At the end of the Program the total value of the children's disability (0-3 years of age) is 39.1 per 10,000 children; whereas at the beginning of the Program it was 49 per 10,000 children.

**Conclusions:** Decrease in the value of children's disability is conditioned by the introduction of high-technology specialized medical aid rendered to the child in the first months of their life as well as involvement of the tested rehabilitation methods and technologies in the work of the services of early aid. On the whole such results have been achieved due to the organization of the interdepartmental cooperation on detection and further complex assistance rendered to the children, prompt correction of pathological health and development conditions, introduction of modern methods and technologies of remedial rehabilitation.

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