

РАЗДЕЛ 2. МЕДИКО-БИОЛОГИЧЕСКИЕ ПРОБЛЕМЫ ЗДОРОВЬЯ ЧЕЛОВЕКА

УДК 616.831

DOI: [https://doi.org/10.14258/zosh\(2024\)06](https://doi.org/10.14258/zosh(2024)06)

ЭПИДЕМИОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА ДЦП У ДЕТЕЙ И НОВЫЕ ИЗМЕНЕНИЯ В КИТАЙСКИХ РЕКОМЕНДАЦИЯХ ПО РЕАБИЛИТАЦИИ ПРИ ДАННОМ ЗАБОЛЕВАНИИ

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EPIDEMIOLOGICAL CHARACTERISTICS OF CEREBRAL PALSY IN CHILDREN AND NEW CHANGES IN CHINESE REHABILITATION GUIDELINES FOR CEREBRAL PALSY

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Следует цитировать / Citation:

Чжан Си Юэ, Гао Шаньцзюй, Ван Сяо Цзюнь. Эпидемиологическая характеристика ДЦП у детей и новые изменения в китайских рекомендациях при данном заболевании // Здоровье человека, теория и методика физической культуры и спорта. 2024. №1 (33). С. 58–67. URL: <http://journal.asu.ru/index.php/zosh>. DOI: [https://doi.org/10.14258/zosh\(2024\)06](https://doi.org/10.14258/zosh(2024)06).

Zhang Si Yue, Gao Shanqu, Wan Siao Cizhuny. Epidemiological characteristics of cerebral palsy in children and new changes in Chinese rehabilitation guidelines for cerebral palsy. Health, Physical Culture and Sports, 2024, 1 (33), P. 58–67 (in English). URL: <http://journal.asu.ru/index.php/zosh>. DOI: [https://doi.org/10.14258/zosh\(2024\)06](https://doi.org/10.14258/zosh(2024)06).

Поступило в редакцию / Submitted 28.01.2024

Принято к публикации / Accepted 11.02.2024

Аннотация. Цель данной работы – сравнить распределение и характеристики заболеваемости детей с церебральным параличом в южном и северном Синьцзяне (Китай), понять эпидемиологические характеристики детей с церебральным параличом в 12 провинциях и городах Китая, включая уровни заболеваемости, распространенности и способы лечения детей, которые проходят реабилитацию. Следует обеспечить большой объем данных для создания надежной сети справочной службы в Китае, а также предоставления услуг по диагностике и лечению детей с церебральным параличом. Важно предоставить объективные данные для разработки политики в отношении церебрального паралича. В статье даны рекомендации по изменению в руководствах по реабилитации при церебральном параличе в Китае, которые отвечают растущим потребностям людей в научно обоснованной практике реабилитации при церебральном параличе. В рамках МКФ-ДП практические рекомендации, основанные на фактических данных, пересматриваются и совершенствуются, чтобы помочь специалистам по детской реабилитации эффективнее руководить клинической реабилитационной практикой. Быстрое развитие управляемого образования в Китае помогло пациентам с церебральным параличом улучшить свои функции и лучше интегрироваться в общество.

Ключевые слова. Синьцзян, детский церебральный паралич, эпидемиология, руководство, доказательная медицина, управляемое образование

Abstract. To compare the distribution and incidence characteristics of children with cerebral palsy in southern and northern Xinjiang, China, and to understand the epidemiological characteristics of children with cerebral palsy in 12 provinces and cities in China, including the incidence rate, prevalence rate and the way of receiving rehabilitation treatment. To provide a large amount of data support for the establishment of a sound network referral service in China, as well as to provide diagnosis and treatment services for children with cerebral palsy, and to provide objective data for the formulation of cerebral palsy policies. The new changes in the rehabilitation guidelines for cerebral palsy in China have met people's increasing requirements for evidence-based practice of cerebral palsy rehabilitation. Under the framework of ICF-CY, the evidence-based practice guidelines are revised and improved to help children's rehabilitation workers better guide clinical rehabilitation practice. The rapid development of guided education in China has helped patients with cerebral palsy to obtain better functions and better integrate into society.

Keywords. Xinjiang, cerebral palsy, epidemiology, guideline, evidence-based medicine, guided education

COMPARATIVE ANALYSIS OF SOUTHERN AND NORTHERN XINJIANG

Xinjiang is located in the northwest of China, accounting for 1 / 6 of the total area of China. The total population of Xinjiang is 25.87 million, which is the statistical data for 2022.

Xinjiang is divided into south and north by Tianshan Mountains. In southern Xinjiang, there is the 10 th largest desert in the world : the Taklimakan Desert. In the northern part of Xinjiang, there are beautiful Ili grassland and Altai Mountains.

In 2019, the results of the study published by Xinjiang Medical University are as follows : First, there are more children with cerebral palsy in southern Xinjiang than in northern Xinjiang. Second, male children with cerebral palsy in Xinjiang are more than female children. Thirdly, the age of children with cerebral palsy is 7-13 years old, accounting for 37.2 %, followed by children aged 4-7 years old, accounting for 36.3 %. Fourth, the types of children with cerebral palsy in Xinjiang are mostly spastic, accounting for 56.6 %, followed by mixed, accounting for 35.8 %, and athetoid, accounting for 7.6 %.

The common causes of cerebral palsy in children include : premature delivery, hypoxic-ischemic encephalopathy, and maternal threatened abortion.

In 2012, the results of the study of Yili Women and Children 's Hospital in the northern region of Xinjiang showed that : First, children with cerebral palsy aged 3-6 years old, accounting for 65.68 %. Second, there are more male children than female children. Third, children with family history accounted for 1.23 %. Fourth, mentally retarded children with cerebral palsy accounted for 3.7 %. Fifth, children with epilepsy accounted for 9.38 %. Sixth, 14.81 % of children with cerebral palsy had other complications.

The GMFCS type of children with cerebral palsy in Yili area of northern Xinjiang is the most type 5, accounting for 30.68 %. In GMFCS1-GMFCS5 types of children with cerebral palsy, children with type 5 are limited in their ability to move even if they use assistive technology.

Summary. In Xinjiang, China, there are more children with cerebral palsy in the southern region than in the northern region, and the type of chil-

dren with cerebral palsy is the most spastic. In the future, we should improve the maternal and perinatal health care measures to reduce and reduce the prevalence of cerebral palsy. Cerebral palsy in children is a chronic central nervous system dysfunction. The main cause is non-progressive damage to the brain of the fetus and infants during development.

It is mainly manifested as motor control disorder and abnormal posture in the early life, often accompanied by sensory, perceptual, cognitive, communication and behavioral disorders, which is one of the main diseases leading to children 's disability.

The difficulty of cure and recovery of cerebral palsy brings serious economic burden to the family, thus affecting the treatment of children. It is reported that the prevalence of cerebral palsy in China in 2010 was 1.80 ‰, and there are some differences in the prevalence of cerebral palsy in different regions.

The results of this study show that children with cerebral palsy in Xinjiang are widely distributed, and the characteristics of the southern and northern regions are different. We should combine the local epidemiological characteristics to carry out relevant education work for families of childbearing age.

We should popularize the knowledge of the harm of cerebral palsy to every family. At the same time, we should pay attention to the regular monitoring and follow-up of high-risk children, especially premature infants and low birth weight infants, so as to achieve ' early detection, early diagnosis and early treatment ', so as to reduce the incidence of cerebral palsy and reduce the economic burden of the family ^[1].

EPIDEMIOLOGICAL CHARACTERISTICS OF CEREBRAL PALSY IN CHILDREN IN TWELVE PROVINCES AND CITIES OF CHINA

China is a large country with 9.6 million square kilometers of land area and 1.4 billion people, and it is also a developing country. Because of the vast territory, the level of medical technology in each place is uneven. Due to the large population base, the number of patients with cerebral palsy in our country is the largest in the world ^[2]. At the same time, according to the population ra-

tio of physical therapists (PT) in the world, there are fewer therapists engaged in this cause in our country, which also leads to the difficulty of rehabilitation and prevention of patients with cerebral palsy in our country.

In 1988, the first survey of the incidence of cerebral palsy in Jiamusi, China, was 1.8 ‰ ~ 4.0 ‰. In 1997, the prevalence of cerebral palsy in children aged 1 ~ 6 years old in 6 provinces and cities such as Jiangsu was 1.92 ‰ [3-4]. According to the literature from January 2000 to October 2014, the prevalence rate of children with cerebral palsy in 14 provinces and cities in China was 0.18 %, the prevalence rate of children aged 1 ~ < 2 years was 0.20 %, the prevalence rate of children aged 2 ~ < 3 years was 0.19 %, the prevalence rate of children aged 3 ~ < 4 years was 0.18 %, the prevalence rate of children aged 4 ~ < 5 years was 0.15 %, the prevalence rate of children aged 5 ~ < 6 years was 0.18 %, and the prevalence rate of children aged ≥ 6 years was 0.19 % [4].

From 2012 to 2013, the School of Rehabilitation Medicine of Jiamusi University and the School of Public Health of Jiamusi University selected 12 representative provinces, municipalities and autonomous regions from 2012 to 2013, and conducted a large-scale epidemiological survey of cerebral palsy with more than 320,000 urban and rural children aged 1 to 6 years. The results showed that the incidence of cerebral palsy was 2.48 ‰ in the survey areas of the first and 12 provinces, of which Henan had the highest incidence of 3.86 ‰ and Beijing had the lowest incidence of 0.92 ‰, as shown in Table 1. Second, the total prevalence of children with cerebral palsy in the survey area of 12 provinces and cities was 2.46 ‰ (1 ~ 6 years old). The highest prevalence rate was 5.40 ‰ in Qinghai Province and the lowest was 1.04 ‰ in Shandong Province, as shown in Table 2. Third, in the survey area of 12 provinces and cities, the prevalence rate of boys was 2.64 ‰, and the prevalence rate of girls was 2.25 ‰. Fourth, the results of this survey showed that children with spastic cerebral palsy accounted for the highest proportion of 58.85 %, mixed type accounted for 13.17 %, involuntary movement type accounted for 9.79 %, hypotonia type accounted for 8.28 %, ataxia type accounted for 6.52 %, and rigidity type accounted for 3.39 % [5].

Table 1

Incidence of cerebral palsy in 1-6 years old children in 12 provinces and cities in China

Provinces and cities	Survey sample size (person)	The number of cases of cerebral palsy (cases)	Incidence (‰)
Heilongjiang	3236	8	2.47
Beijing	4359	4	0.92
Henan	10092	39	3.86 ^{ab}
Shandong	7394	7	0.95
Shanxi	3456	6	1.74
Shaanxi	3662	12	3.28 ^{ab}
Anhui	6144	18	2.93 ^{ab}
Hunan	4464	12	2.69 ^b
Guangdong	7853	18	2.29 ^b
Guangxi	3479	6	1.73
Chongqin	6314	18	2.85 ^{ab}
Qinhai	2148	7	3.26 ^{ab}
Footing	62591	155	2.48

Note : ^aCompared with Beijing,P<0.05;

^bCompared with Shandong,P<0.05

Table 2

Prevalence of cerebral palsy in 1-6 years old children in 12 provinces and cities in China

Provinces and cities	Survey sample size (person)	The number of cases of cerebral palsy (cases)	Prevalence rate (‰)
Heilongjiang	20690	43	2.08 ^a
Beijing	20219	40	1.98 ^a
Henan	49590	120	2.42 ^a
Shandong	45133	47	1.04 ^a
Shanxi	20808	49	2.36 ^a
Shaanxi	21106	105	4.98 ^a
Anhui	30097	78	2.59 ^a
Hunan	20003	55	2.75 ^a
Guangdong	36511	85	2.30 ^a
Guangxi	19836	43	2.17 ^a
Chongqin	29867	78	2.61 ^a
Qinhai	9998	54	5.40 ^a
Footing	323858	797	2.46

Note :^aCompared with the other province,all P<0.0001

The main risk factors for children with cerebral palsy are : 1, long-term exposure of mothers to harmful substances such as X-ray radiation, 2, whether there are genetic defects in children 's peers and parents, 3, abnormal conditions in the process of birth ^[5].

According to the results of this survey can be drawn : First, the prevalence of children with cerebral palsy in China from January 2010 to December 2010 was basically consistent with foreign reports of 2.48 ‰. Second, with the continuous improvement of diagnostic techniques and medical and health conditions in China, the prevalence of cerebral palsy in this survey is higher than that in previous domestic results. Third, the differenc-

es in the spatial distribution of children with cerebral palsy may be related to natural conditions and economic development. Fourth, the change of cerebral palsy classification may be related to the progress of obstetric nursing technology and the increase of neonatal intensive care survival rate. Fourth, 79.67 % of the children can get timely diagnosis and treatment in the local area, 19.93 % of the children can not get timely diagnosis and treatment in the local area, 34.58 % of the children with cerebral palsy are centralized rehabilitation treatment, 31.61 % are community or family rehabilitation, 33.80 % are centralized treatment combined with community rehabilitation, see table 3 ^[5].

Table 3

Ways to rehabilitation for 1-6 years old children with cerebral palsy in 12 provinces and cities in China [cases %]

Provinces and cities	Centralized rehabilitation	Community and Family Rehabilitation	Both have	Neither of them	Footing
Heilongjiang	17(39.53)	14(32.56)	1(2.33)	11(25.58)	43
Beijing	11(27.50)	13(32.50)	14(35.00)	2(5.00)	40
Henan	60(50.00)	26(21.67)	32(26.67)	2(1.67)	120
Shandong	20(41.67)	12(25.00)	15(33.33)	0	47
Shanxi	9(17.31)	26(50.00)	14(32.69)	0	49
Shaanxi	8(7.62)	70(66.67)	27(25.71)	0	105
Anhui	11(14.10)	17(21.79)	48(61.54)	2(0.39)	78
Hunan	22(40.00)	7(12.73)	26(47.27)	0	55
Guangdong	38(44.71)	10(11.76)	33(38.82)	4(4.71)	85
Guangxi	13(30.23)	13(30.23)	13(30.23)	4(9.30)	43
Chongqin	53(67.95)	9(11.54)	15(19.23)	1(1.28)	78
Qinhai	6(11.11)	28(51.85)	20(37.04)	0	54
Footing	268(3.630)	245(30.74)	262(32.87)	22(2.76)	797

Note :frequency deletion:42

In summary, according to the results of this survey, the prevalence of children with cerebral palsy in China is the highest in spastic type and the least in rigidity. The regional distribution has the highest incidence in Henan and the lowest in Beijing. Another 79.67 % of children with cerebral palsy can be effectively treated locally, indicating that the level of prevention and treatment in our country has been greatly improved. In the future, we should strengthen the prevention and treatment of children with cerebral palsy, so as to avoid increasing economic burden and pain due to the

lack of timely treatment. The results of this survey provide a lot of data support for the establishment of a sound network referral service in China, and provide objective data for us to better provide diagnosis and treatment services for children with cerebral palsy and formulate cerebral palsy policies in the future. The prevention and treatment of children with cerebral palsy is a long way to go. I hope that we can make more efforts in the future to shorten the gap with some developed countries, improve the well-being of children with cerebral palsy, and enable more children with cerebral pal-

sy to return to their families and return to society as soon as possible^[5].

NEW CHANGES IN CHINESE REHABILITATION GUIDELINES FOR CEREBRAL PALSY

Cerebral palsy is a group of persistent symptoms of central motor and postural development disorders and limited mobility. This syndrome is caused by non-progressive brain damage in developing fetuses or infants.

In order to meet people's higher and higher requirements for evidence-based practice of cerebral palsy rehabilitation, the Children's Rehabilitation Professional Committee of China Rehabilitation Medical Association, the Children's Cerebral Palsy Rehabilitation Professional Committee of China Rehabilitation Association for the Disabled, and the Children's Rehabilitation Professional Committee of Rehabilitation Physicians Branch of China Medical Association have revised the 'Guideline 2015' and jointly compiled the 'Chinese Cerebral Palsy Rehabilitation Guideline (2022)', which provides better clinical practice guidance for workers engaged in children's cerebral palsy, so that children with cerebral palsy can get better evidence-based practice treatment.

3.1. Classification and early prediction of cerebral palsy

Referring to the classification of cerebral palsy in the International Classification of Diseases (ICD) -11,^[6] the classification of Worster-Drought Syndrome (WDS) was added to the original classification in 'Guideline 2022'. WDS, also known as congenital pseudobulbar palsy, is a kind of cerebral palsy characterized by pseudobulbar palsy, mainly manifested as selective muscle weakness of lips, tongue and soft palate, dysphagia, dysphonia, salivation and mandibular convulsion^[7].

In order to enable children with cerebral palsy to get effective treatment more quickly and timely, improve the probability of children with cerebral palsy returning to society, and reduce the economic burden of families with children with cerebral palsy, 'Review 2017' is to directly advance the diagnosis of cerebral palsy. Before the age of 6 months, children with cerebral palsy get the best treatment plan^[8].

3.2. Assessment of cerebral palsy

Rehabilitation assessment is the basis of rehabilitation treatment. It enables us to objectively and accurately judge the nature, location, scope and degree of dysfunction in children with cerebral palsy. With the deepening and advancement of the ICF concept, the assessment of children with cerebral palsy in the Chinese cerebral palsy rehabilitation guidelines 'Guideline 2022' includes three parts: physical function and structure assessment, activity and participation assessment, and environmental assessment^[9]. More attention has been paid to the ability of children with cerebral palsy to return to their families and return to society.

In the assessment of children with cerebral palsy, 'Guide 2022' has made the following changes compared with 'Guide 2015': 1. Increased attention function assessment (Connors continuous performance test, attention grid test, parent and teacher rating scale); 2. The Mandarin version of the preschool children's language core scale assessment and the first children's development assessment scale independently developed in China-0 ~ 6 years old children's neuropsychological development scale (2016 edition) were added; 3. Separate the assessment of articulation function from the assessment of speech function and list them separately; 4. Increase the assessment of respiratory function; 5. Delete pronunciation and speech structure assessment; 6. Increase the ability to learn and apply knowledge assessment^[9].

3.3. Treatment of cerebral palsy

Treatment usually refers to the process of intervening or changing a specific state. Rehabilitation therapy can improve the dysfunction of children with cerebral palsy, so that they can return to society faster. In order to better provide a full range of treatment for children with cerebral palsy, 'Guideline 2022' has made some modifications.

The 2015 A-level recommendations are: 1, Volta treatment technology, 2, Rood treatment technology, 3, weight loss gait training, 4, core stability training, 5, Bobath technology, 6, functional electrical stimulation, 7, transcranial magnetic stimulation technology, 8, spa, 9, wax therapy, 10, mobile assistive devices, 11, visual function training, 12, auxiliary communication system, 13, guided education, 14, botulinum toxin type A injection, 15, disodium aminohydroxydiphosphate, 16, the

use of auxiliary and alternative communication can significantly enhance children's communication, language and literacy^[10-12].

The A-level recommendations of the 'Guideline 2022' are: 1. GDT (functional goal-oriented exercise training), 2. GAME (goal-oriented intensive exercise training), 3. Goal-oriented HABIT-ILE combined with conventional rehabilitation therapy, 4. Sit-to-stand conversion and functional task training, 5. Weight loss treadmill training, 6. Functional-oriented exercise rehabilitation based on ICF-CY, 7. Core stability training, 8. Exercise therapy to prevent contracture, 9. FES combined with oral sensorimotor therapy, 10. Biofeedback therapy combined with gait training, 11. Based on the purpose of participation, GDT can improve the participation and satisfaction of children and adolescents with cerebral palsy in sports activities, 12. AOT can improve the physical function, activity function and participation of children with hemiplegic cerebral palsy, 13. BIT and HABIT can improve the coordination ability and hands-on ability of children with spastic hemiplegic cerebral palsy, improve ADL ability and quality of life, 14. Oral exercise training, 15. articulation language function training, 16. auxiliary communication system applied to pre-language communication skills training, 17. botulinum toxin type A injection, 18. short-term application of diazepam, 19. disodium aminohydroxydiphosphate, 20. ankle plantar flexion deformity in children with cerebral palsy plaster therapy, 21. botulinum toxin type A injection with plaster therapy, 22. MLS or SEMLS with postoperative rehabilitation, 23. soft tissue relaxation, 24. pelvis combined with femoral osteotomy of hip joint reconstruction, 25. femoral rotation osteotomy, 26. whole body vibration training, 27. parent-child interaction between parents and high-risk children with cerebral palsy, 28. communication aids, 29. standing posture aids, 30. equipped with children's wheelchairs can promote the development of cognitive and psychosocial functions of children with cerebral palsy, improve activity and participation ability, 31. ICB orthopedic insoles, 32. Game therapy is an effective method to improve the cognitive, language and motor function of children with cerebral palsy, 33. Electrical stimulation combined with oral sensorimotor therapy can better improve the swallowing func-

tion of children with cerebral palsy, 34. Anti-spasmodic position and targeted physical therapy can help children with cerebral palsy relieve pain^[13-14].

In the treatment of children with cerebral palsy, 'Guideline 2022' has made the following changes compared with 'Guideline 2015': **1. Treatment principles**: increase the goal-oriented, cerebral palsy children happy and motivated to actively participate in rehabilitation training, pay attention to the participation of children with cerebral palsy and their parents and the principle of family intervention in the rehabilitation treatment of cerebral palsy, highlighting the importance of ICF as a guide and following EBM. **2. Exercise therapy**: more emphasis on the motivation and attention of training, hoping that children with cerebral palsy are trained spontaneously in a beneficial and happy situation, in the attitude towards NDT. It is recommended to use active NDT to improve the motor function and ADL ability of children with cerebral palsy. Vojta technology is considered to be unable to improve the motor skills of children with cerebral palsy, and it adds exercise therapy such as GDT, combination of GDT and TOT, GAME, HABIT-ILT, AOT, MIT, MVE, function-oriented sports activities and active strength training based on ICF-CY. **3. In terms of physical factor therapy**, phototherapy and HBO therapy without EBM support were deleted, and transcranial direct current stimulation, deep brain stimulation and mud therapy were added. **4. In terms of occupational therapy**, GDT, CO-OP, AOT, hands training, botulinum toxin type A injection combined with occupational therapy were added, which emphasized the interaction between human and environment and adhered to the principle of people-oriented treatment. **5. In terms of speech and language therapy**, oral muscle training technology and eating therapy were deleted. **6. In terms of drug therapy**, levetiracetam is no longer recommended to improve the balance control and fine motor function of children with cerebral palsy. Improve the evidence of mouse nerve growth factor to improve the motor function of children with cerebral palsy and IHRC. **7. Traditional Chinese medicine**: With the continuous improvement and improvement of traditional Chinese medicine treatment technology for cerebral palsy in China, 'Guideline 2022' has improved the level of evidence for traditional Chinese medicine treatment technol-

ogy for cerebral palsy. There are different degrees of increase in massage, acupuncture and moxibustion, and their precautions have been modified to improve the movement, operation and speech language function of children with cerebral palsy. **8. Rehabilitation care** : increased skin care and orthosis application related care, more detailed introduc-

tions were made on the position and steps of wearing and undressing, toilet care, food selection and eating posture, and the suggestion of wearing non-wet urine was deleted. **9. Other aspects** : the surgical part increased hip joint monitoring and reduced the level of evidence for selective posterior rhizotomy (SDR) [10-17].



In summary, the ‘Guideline 2022’ has further improved the diagnosis, early prediction, evaluation and treatment of children with cerebral palsy. Under the ICF-CY framework, it highlights the guidance of ICF and follows the basis of EMB research. It is hoped that children with cerebral palsy can participate in rehabilitation training happily and actively, and emphasizes the importance of parental participation and family intervention. The publication of ‘Guideline 2022’ is of great significance to the standardized rehabilitation treatment of children with cerebral palsy in China and to meet the guidance needs of the majority of clinical rehabilitation practitioners. It is hoped that the rehabilitation treatment system of children with cerebral palsy can be better improved in the future, so that more children with cerebral palsy can get effective and timely rehabilitation treatment.

THE SITUATION OF CHINA 'S GUIDED EDUCATION

Guided education originated in the 1920 s and was created by Hungarian scholar András Peto af-

ter continuous exploration. The theoretical basis of this method refers to the use of comprehensive rehabilitation methods to mobilize the potential of patients in various aspects such as independent exercise through the guidance, induction and education of others, and to stimulate patients ‘interest and participation awareness with recreational and rhythmic intentions. In order to promote the improvement of functional disorders. This method is widely used in the clinical and family rehabilitation treatment of children with cerebral palsy, and it is one of the most effective methods recognized internationally.

Hong Kong, China began to introduce guided education in 1981. Through more than ten years of rehabilitation practice, it has achieved good results, attracted the interest of other institutions and gradually promoted and developed in China. In 1986, Professor Li Shuchun, known as “the father of Chinese children with cerebral palsy,” began to introduce the guided education method from Japan. Through the combination of guided education and traditional Chinese exercise therapy, good results have been achieved in the treatment

of cerebral palsy in children. In recent years, under the impetus of the China Disabled Persons ' Federation, the Disabled Persons ' Federation in various regions has vigorously promoted the guided education method for children with cerebral palsy, promoted the application of guided education in the training of children with cerebral palsy and made great progress.

Recently, commissioned by the China Rehabilitation Association for the Disabled, the ' Group Standards for Rehabilitation Services for Children with Cerebral Palsy ' written by the Rehabilitation Medical College of Jiamusi University and the Third Affiliated Hospital of Heilongjiang Province was officially released on the national group standard information platform according to the requirements of the ' Group Standards Management Measures for China Rehabilitation Association for the Disabled '.

The introduction of China 's ' standard ' is helpful to standardize the construction of rehabilitation institutions for children with cerebral palsy in China, enhance the ability of rehabilitation services for children with cerebral palsy, and provide scientific basis for the rehabilitation services of large groups of children with cerebral palsy from the aspects of disease prevention, early detection, condition assessment and timely intervention.

It is not only easy for the managers and rehabilitation service personnel of the Disabled Persons ' Federation to understand, but also conducive to the reference and implementation of various rehabilitation institutions.

At present, there is only one rehabilitation institution for children with cerebral palsy in China from the mid-1980 s. It has now developed into thousands of rehabilitation institutions for children of different levels and types throughout the country. October 6,2023 is the 12th World Cerebral Palsy Day. It is an activity jointly organized by the World Cerebral Palsy Alliance and supported and participated by cerebral palsy patients and cerebral palsy organizations in more than 75 countries around the world. The aim is to call on the whole society to pay attention to the group of cerebral palsy, work together to eliminate the misunderstanding of ' cerebral palsy ', help patients with cerebral palsy to obtain better functions and better integrate into society. With the efforts of governments around the world, there are more and more rehabilitation institutions for children with cerebral palsy, providing comprehensive medical rehabilitation services for children with cerebral palsy, and contributing to the development and progress of society !

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