

Research on the Effect of Physical Activity on Children with Intellectual Disabilities

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Abstract:

Children with intellectual disabilities have significant defects in intellectual development. With the emphasis on special education in today's society, the educational concept of combining sports with children with intellectual disabilities has become an effective educational method. This paper introduces the concept and development of sports and children with intellectual disabilities, analyzes the benefits of sports on children with intellectual disabilities in terms of social ability, mental health, physical development, learning ability, etc. In view of the current situation and problems, it puts forward suggestions on sports education for children with intellectual disabilities from the aspects of sports planning, sports environment and sports activities. This research can help improve the quality of life of children with intellectual disabilities, provide appropriate sports environment and opportunities, and promote social inclusion and equality, reducing social prejudice and discrimination.

Keywords:

Sports, Children with Intellectual Disabilities, Physical Education, Benefits of Sports

1. Introduction

1.1. Research background

With the development of globalization in today's society, sports has developed into an activity with important influence on a global scale. Sports is not only a kind of physical exercise, but also can promote people's physical and mental health. At the same time, different countries and regions have different sports cultures, sports can reflect the social and cultural characteristics of a country or region, is a way of communication across national borders, and is also a bridge of international friendship, which has a positive impact on the society. The origin of sports can be traced back to the early stage of human society, and with the development of society, it has been influenced by many factors such as history, culture, economy and politics of human society [1]. Children with intellectual disabilities are a vulnerable group in society, facing many difficulties and challenges in socializing, living and learning, and need more help and support. Sports play an important role in the development of children with intellectual disabilities. Promoting children with intellectual disabilities to

participate in sports is an important measure to help them improve their quality of life and form values.

1.2. Research significance

Sports have a profound and diversified influence on children with intellectual disabilities, involving multiple aspects such as physical health, psychological adjustment, social participation, intellectual development and quality of life [2]. For children with intellectual disabilities, participating in sports is not only a way to exercise, but also an opportunity for their own growth and development. However, the current research on the relationship between sports and children with intellectual disabilities is still insufficient. This paper introduces the basic concepts and development of sports and children with intellectual disabilities, analyzes the benefits of sports to children with intellectual disabilities, and puts forward relevant suggestions in sports education according to the life and actual needs of children with intellectual disabilities. This study has enriched the theoretical research on the benefits and influence of physical exercise on children with intellectual disabilities, and provided theoretical reference for the all-round development of children with intellectual disabilities. At the same time, in-depth research on the connection between sports and children with intellectual disabilities will help people better understand the athletic ability and physical and mental health of children with intellectual disabilities, better help children with intellectual disabilities gain more benefits in sports, enhance their self-confidence, and enable them to better integrate into society and get a sense of identity.

2. Concept and Development

2.1. Physical exercise

Sport is an active way of life and refers to various forms of movement through physical activity, different skill performances and physical competition. Sports is not only an activity to improve physical health and skill level, but also a way of communication between people and cultural inheritance. Proper sports can help people maintain health, improve their mental state, develop a positive attitude toward life, enhance teamwork, and improve self-worth and self-confidence. In recent years, new forms of sports have emerged. For example, during the epidemic period, the celebrity Liu Yonghong and his wife broadcasted live at home to drive people to exercise during the epidemic period. In this way, sports allowed people to improve their immunity during the epidemic period and have a positive attitude towards the epidemic. Studies have shown that physical education was initially only understood as "physical education", but with the development of The Times, the scope of physical exercise gradually expanded and generalized to the total of all bodies [2]. In short, sports have an important impact on people's physical and mental health, life attitude and social interaction, and are loved by the public around the world.

2.2. Children with intellectual disabilities

Children with intellectual disability generally refer to those with significant impairments in intellectual development. The World Health Organization (WHO) defines intellectual disability as a broad cognitive impairment, which is manifested by significant limitations in intellectual and adaptive behaviors (such as daily living skills, social skills, and communication skills) during an individual's development [3]. This

disorder affects their ability to learn as well as the ability to adapt to society and the development of daily living skills. There are many factors that cause intellectual disability, usually genetic factors and environmental factors as well as other factors. The symptoms and extent of children with intellectual disabilities vary from individual to individual, and some children require special education and support to help them function and integrate into society. Statistics show that there are more than 8 million children with various disabilities between the ages of 0 and 14 in China, and a total of 919,800 students attend 2,288 special education schools [4]. For example, in the special education school in Changde, Hunan Province, more than 50 kinds of physical education courses, such as balance boards, help children with intellectual disabilities participate in social interaction. Thus, children with intellectual disabilities are vulnerable groups in today's society and need more attention.

2.3. Therapeutic development of children with intellectual disabilities

The treatment and development of mentally disabled children need comprehensive and complex methods and measures, which is an important issue that attracts people's attention in today's society. First of all, provide medical help for children with mental disabilities. Children with intellectual disabilities need targeted rehabilitation treatment, such as physical and psychological drug therapy and speech therapy, to overcome physical obstacles and improve the quality of life [5]. Secondly, support should be given to children with intellectual disabilities in terms of education. Children with intellectual disabilities need special professionals and teachers to make targeted and personalized education plans for each child to ensure that children get appropriate education within the scope of their cognitive ability. In addition, social support is an important guarantee for the treatment of children with intellectual disabilities. Children with intellectual disabilities need more social inclusion and care to help them improve social skills, build friendships, reduce negative emotions, and get more opportunities to integrate into society. Nowadays, sports play an increasingly important role in the treatment and development of children with intellectual disabilities, and are more integrated into the treatment system of children with intellectual disabilities. In conclusion, the treatment and development of children with intellectual disabilities requires a multidisciplinary team to treat children with intellectual disabilities from multiple aspects.

3. The Benefits of Physical Activity for Children with Intellectual Disabilities

3.1. Sociability

Sports have many positive and effective influences on the improvement of social ability of children with intellectual disability. One is to help build friendships. By participating in physical activities, children with intellectual disabilities can bond with other children and interact with them in ways that can help them build friendships and increase understanding and trust with others. Second, promote teamwork. Participating in sports can help children with intellectual disabilities learn how to cooperate in a team. In the process of sports, they must communicate and cooperate with each other in a team, which helps to cultivate the spirit of cooperation and team consciousness of children with intellectual disabilities. Third, we need to promote effective communication. In the process of sports, children with intellectual disabilities need to communicate and share information with teammates and coaches.

Such communication enables children with intellectual disabilities to practice and develop language communication skills, which helps improve their expression and understanding ability. Therefore, sports have a positive impact on children with intellectual disabilities, not only helping them build friendships and improve self-confidence, but also promoting their teamwork and social skills.

3.2. *Mental health*

Sports play an important role in promoting the mental health of children with intellectual disabilities, and provide favorable support for children with intellectual disabilities in many aspects. First, improve self-esteem and self-confidence. In the process of sports, children with intellectual disabilities can show themselves to others through this platform, so as to gain a sense of accomplishment. This experience helps to improve children with intellectual disabilities' sense of identity and enhance self-confidence. Second, improve your mood and state. Sports can bring different benefits to children with intellectual disabilities in the form of a team, so that children with intellectual disabilities can discuss and communicate with each other in the process of team cooperation, cultivate friendship, promote social interaction, reduce loneliness and depression, and thus help improve the emotional health of children with intellectual disabilities. Third, relieve anxiety and stress. Sports is an effective way to stimulate the brain. Participating in sports can make mentally disabled children participate in activities, divert distracting attention, release pressure and negative emotions through the body, and relieve inner tension. Meanwhile, winning games and competitions can bring about a pleasant mood and release anxiety and pressure. All in all, sports provide a platform for the psychological development of children with intellectual disabilities, help them build a good mentality, enhance self-confidence and enhance social ability, better face the difficulties and challenges in life, and promote the overall physical health of children with intellectual disabilities.

3.3. *Physical growth*

Sports have a positive and significant impact on the physical development of children with intellectual disabilities, and can bring new vitality to the life of children with intellectual disabilities. Participation in sports can help children with intellectual disability develop musculoskeletal, enhance physical strength and endurance, and improve physical fitness. Enhance the cardiopulmonary function of children with intellectual disability, and improve the physical level; It can also improve physical coordination and flexibility, and better promote the development of the nervous system. For example, special physical education schools carry out special sports programs, which include swimming, basketball, track and field and other sports activities, and provide help and guidance for different children's ability levels and interests to promote the healthy physical development of mentally disabled children. Related research shows that sports games can promote the balance and coordination of children with intellectual disabilities, enhance the sense of balance, improve the sense of development and attention of children with intellectual disabilities; It can also enhance the activity of large muscle groups and promote the physical activity ability of children with intellectual disabilities [6]. In a word, sports are an essential part of the physical development of children with intellectual disabilities, and play a crucial role in the development of children with intellectual disabilities.

3.4. *Learning capacity*

Sports provide an effective learning environment for children with intellectual disabilities, help to learn imitation ability and attention exercise, and promote the improvement of learning ability of children with intellectual disabilities. On the one hand, under the guidance of teachers, children with intellectual disabilities can imitate a specific movement in sports, so as to enhance their imitation ability. For example, basketball sports contains some specific exceptional movements, and children need to observe them carefully and then further imitate these movements to improve their learning and imitation ability. On the other hand, sports require children with intellectual disabilities to focus their attention and control their behavior. In the process of training and competition, they can improve their concentration and concentration. For example, in sports training or competition, children need to continue to pay attention to the guidance of the coach and the situation of the game, which helps to enhance children's concentration. To sum up, it is often very effective to improve learning ability through sports. Children with intellectual disabilities need to imitate movements and keep their attention in sports, which is beneficial to their future life and study [7].

4. Suggestions on Sports Education for Mentally Disabled Children

4.1. Create a personalized exercise plan

The development of individualized sports plan for children with intellectual disabilities needs to take into account many factors, such as interests, physical quality, ability level, etc. In terms of hobbies, sports include a variety of events, for example, there are track and field, ball games, swimming, martial arts, ice and snow and other events. According to the degree of interest of children with intellectual disabilities in different sports, it is better to adapt to the current situation of children with intellectual disabilities. In terms of physical fitness, the physical fitness and athletic ability of children with different intellectual disabilities were evaluated. In order to better professionalize and rationalize the development of exercise plans. In terms of ability level, each child with intellectual disability has a different ability level, and there is a wide range of individual differences in language ability, cognitive ability and motor ability. The development of a plan can provide personalized support and guidance. Therefore, to understand the needs of children with intellectual disabilities and develop personalized exercise plans for them, to provide them with adaptive exercise education and support, to help children with intellectual disabilities to maximize their development potential.

4.2. Create a professional sports environment

Creating a professional sports atmosphere can provide a reasonable sports environment for children with intellectual disabilities. Create suitable venues and facilities for children with intellectual disabilities, such as easy-to-operate equipment, safe sports venues, etc., to ensure that children with intellectual disabilities can carry out sports activities safely and comfortably. The development of scientific training methods is helpful for children with intellectual disabilities to receive more reasonable and regular training plans. According to the different characteristics or ability levels of children with intellectual disabilities, personalized sports projects and training plans are formulated to provide all-round sports knowledge and services for children with intellectual disabilities. For example, according to the situation of children with intellectual disabilities in sports, adjust the training plan at any time, and give

scientific feedback and opinions. In the process of sports for children with intellectual disabilities, professional training coaches are provided to guide them, understand the special needs of children with intellectual disabilities, and provide them with professional sports guidance support. All in all, creating a professional sports environment for children with intellectual disabilities can help children with intellectual disabilities enjoy the fun of sports, improve their physical and mental health level and athletic ability, and promote the all-round development of children with intellectual disabilities.

4.3. Provide a variety of sports activities

The diversity of sports activities enables people to choose sports that suit them according to their different interests and personal abilities. A variety of sports activities not only enrich people's sports choices, but also promote the overall development of physical and mental health, and cultivate a variety of skills and qualities such as teamwork, perseverance and leadership. First, develop adaptive physical education curriculum. In the course formulation, individualized teaching and training plans can be formulated according to the characteristics, ability level and interest characteristics of individual children, using auxiliary equipment and adjusting the site environment, focusing on the advantages of children with intellectual disabilities to develop, and guiding them to overcome difficulties and challenges. Secondly, design rich team activities. Organize simple and interesting team games and building activities, such as cooperative passing, relay competition, volunteer service, etc., through teamwork and mutual help, improve the team spirit and social skills of children with intellectual disabilities, and promote children's sense of cooperation and competition. Finally, provide artistic sports activities. Organized rhythmic gymnastics, dance sports and other classes, through dance gymnastics and other movements to exercise flexibility and coordination of the body, while through music to develop the sense of rhythm and expression of the mentally disabled children. In brief, providing a variety of physical activities takes into account the unique needs and interests of each child, giving support and encouragement so that each child can enjoy and grow from sports.

5. Conclusions

With the development of society and the emphasis on special education, the all-round development of children with intellectual disabilities is not only related to the individual's life, but also to the happiness of the family and the harmony of the society. Sports not only have significant benefits to physical health, but also great help to psychological cognition, emotion and social interaction. As an important means of education and rehabilitation, sports have gradually attracted people's attention, and promoting the development of children with intellectual disabilities through sports meets the needs of current social development. Sports have a positive impact on children with intellectual disabilities in many aspects, including the improvement of social skills such as communication and teamwork, mental health level such as self-confidence and self-esteem, physical health indicators such as physical coordination, attention and memory and other cognitive abilities. According to the benefits of sports, in order to improve the quality of life and social adaptability of children with intellectual disabilities, this paper puts forward the following suggestions for the sports education of children with intellectual disabilities: First, make an exclusive sports plan according to the needs of children with intellectual disabilities; The second

is to ensure the safety and comfort of children with intellectual disabilities to build a professional environment; Third, provide a variety of activities to enrich the choice of children with intellectual disabilities.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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References

- [1] Cheng, X. Exploring the Origin of the Sport from the Function of the Dance of Primitive Society. *Contemporary Sports Technology*, 2021; pp. 228-230, DOI: 10.16655/j.cnki.2095-2813.2009-1579-2903.
- [2] Zhang, X.; Liao, X.; Zhou, Y.; Li, J.J. Historical Origins on the Lexical Concept of “Physical Education” in China. *Journal of Shanghai University of Sport*, 2022, 46, 49-55+104, DOI: 10.16099/j.sus.2021.11.09.0003.
- [3] Wang, T.J. Research on the association between fundamental movement skills and physical activity among children and adolescents with intellect disability. Master’s thesis, ZJNU(Zhejiang Normal University), Zhejiang Province, 2023.
- [4] Chase light | sports, open the “ordinary road” for this group of special children. Available online: https://jyj.changde.gov.cn/zhd/jydt/content_911194 (accessed on 14 August 2024).
- [5] Zhang, S.X. Strategies to Improve the Quality of Rehabilitation Teaching for Children with Intellectual Disabilities. Science fiction illustrated, 2019; pp. 151. Available online: https://kns.cnki.net/kcms2/article/abstract?v=WONwD37cfzSaxqdQv9jQvoarhY1QOp2rMhannwPoRdPNQxFf841dYsEKqbxjR-flDLCruY1D8SbtuyoRpLd3mNVdIHQAjqu0_Mz8P7GKJvNmN9RZqxClKIYvNN_doWq3ev8Jv_x1aTNEccBQpCyVYwzAgTByjeVc&uniplatform=NZKPT&language=CHS (accessed on 14 August 2024).
- [6] Lu, X.L. An Attempt to Use Sports Games to Improve The Physical Activity Ability of Children with Intellectual Disabilities. *Guangxi Education*, 2023; pp. 122-124, Available online: https://kns.cnki.net/kcms2/article/abstract?v=WONwD37cfzRh_bqt-kF4B3-RRyLNgQcayOffKI2abOhL152VayhsrQF_IRMcGWWGqfK118M_P6dBLLpJr1e0O_FVidaP9jY33uYwYWcDmlU6lsXtNrZwv4NhJiOGtkC_772GN4QoDcdutF5WtZj7nTLpFNbFqTjB&uniplatform=NZKPT&language=CHS (accessed on 14 August 2024).
- [7] Liu, Q.Y. Research on Non-Gymnastics Special Teaching in Sports Schools -- How to Cultivate Students’ Interest and Improve their Ability to Learn Basic Gymnastics. *New Curriculum*, 2011; pp. 15-16, Available online: https://kns.cnki.net/kcms2/article/abstract?v=WONwD37cfzQ6lxV01va2EV5SAO_LR8A1D-l_J834LO5CwYpCk1xFdSrHn4gs8PIKTZh--Xu_8U4bJbzKyO1Tf2uDUNyKH0FkMwthk_tKhGA_YmYYe_jaN5XiGhaLvM

docPkZHueGDr_IFRuvXZri178NyfjBgHWq&uniplatform=NZKPT&language=CHS (accessed on 14 August 2024).



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