

# *Comparative Study on the Physical Condition of Kindergarten Children in China and Poland*

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**Abstract:** The national constitution of a country is the material basis of the national economic and social development, an important part of the extensive national power, and also a valuable wealth of a country. The material condition of a country is a material resource, which has irreplaceable significance to its modernization. The world of reduced child health, physical health and reduced daily activities is unique not only in China, but also in a growing number of countries. The World Health Organization notes that the lack of physical health is an independent risk factor for chronic diseases, with about 1.9 million people dying worldwide, and that childhood obesity is already one of the worst public health challenges of the 21st century, gradually affecting low-income and low-and middle-income countries. Today, with the rapid development of China's social economy, the health status of children is not optimistic, which is not commensurate with the body needed to achieve more prosperity and strength. Children's health problems are worrying. Children's health education is an important part of primary education in China, and also an important stage of school education and lifelong education. Therefore, a series of policy documents have been formulated to strengthen primary education for children and realize the synchronous development of moral, intellectual and physical education. Children aged 4-6 years are at a critical stage of growth and development. Studies have shown that scientific, systematic preschool movements promote the growth and development of children in this age group. Currently, many studies on physical condition and exercise development in preschool children, but few on specific exercise intervention programs in preschool children. Poland was one of the first countries to take the physical fitness test. The test method and theoretical research are relatively comprehensive, and the academic thought and development level are also relatively advanced. Computer management of student physical health tests began in the late 20th century. Through the comparative analysis of the physical condition of preschool children in China and Poland, the advantages and disadvantages of Chinese children are found, and the relevant departments pay more attention to improving students' physical fitness. It provides a framework for the establishment of a comprehensive standard system of the student physical fitness test, and further enriches the theoretical basis of the physical fitness test in China.

## 1. Introduction

Today, the competition in business, science and technology and global national strength is becoming more and more fierce, but also the competition for the overall quality of the country. Improving human quality largely depends on the improvement of physical [1]. Developed countries in the world, such as the United States, Poland and European countries, all attach great importance to the study of their own constitution, and we can draw some progressive ideas from their research. Public health has become the focus of global attention, so the physical health of students is particularly important. In recent years, students have decreased in their flexibility, explosive power, muscle strength, endurance and vitality. The prevalence of obesity and mobility continues to rise and has become a "global" problem that seriously affects human health. Research on children's physique in China was also conducted in a relatively early stage and began in the early 20th century. However, the findings are not more systematic and valuable due to environmental constraints [2]. Ten years ago, with the development of education, health and various sports in China, many researchers began to focus on the growth and development of children, adolescents and national physicists, and collected large amounts of data.

With the development of social economy and sports undertakings, physical health has been increasingly valued by various countries and people. Especially in children's constitution, more and more scholars began to explore and explore this research field, and have made a lot of research results. Especially in today's information globalization, the research in the field of children's physical fitness has grown explosive. A large number of scientific research results have put forward great requirements for the sorting of children's physical fitness research, and also brought great challenges to researchers to quickly and accurately grasp the research situation of children's physical fitness [3]. In recent years, with the rapid growth of economy, the physical health status of children in China has shown a serious deterioration trend. According to the Chinese Childhood Obesity Report, the obesity rate of school-age children in China has increased significantly, from 0.2 percent in 1985 to 8.1 percent in 2010, while the obesity rate of children aged 0-7 years has also risen to 5.3 percent. Without relevant interventions, the number of obesity and obesity rate of young children will increase significantly. The rapid growth rate makes people have to worry about the physical health level of Chinese children in the future. Studies show that rising obesity rates not only increase the growth rate of metabolism-related diseases such as childhood type 2 diabetes and cardiovascular disease, but also obese children are more likely to grow into obese adults, and the risk of obesity-related diseases and their fatality increases with age. Among the many factors that affect obesity, the absence of physical activity is believed to be the main cause of obesity, and therefore, research related to physical activity in adolescents and children has become a hot topic of research today. Among the many factors that affect physical activity, motor skills play a vital role in it, and it affects the degree of participation in physical activity of children at different ages, [4].

With the development of China, China's comprehensive national strength and international influence are enhanced, which makes China's development in all aspects needs an international vision, come out to integrate with the world, and communicate with peers. Modern sports originated in western countries, after nearly a century of development, now the whole system is very mature. China's sports development started late, and the same is true for the research on physical fitness. From the beginning, China has been learning from foreign relatively mature systems and achievements, and then exploring our own physical fitness research system [5]. The same should be true for the research and development of preschool children's physique, fully learn the progress of international preschool children's physique research field, and grasp their development context. According to the study, Poland is among the top students in the world in terms of students' physical health. They have a relatively complete school health system, which has accumulated the growth

and development of teenagers and children in the past one hundred years, which gives us a lot of reference experience.

## **2. Proposed Method**

### **2.1 Physical Fitness**

The paper defines physics as: constitution is the quality of the human body. It is a combination of conditions and features inherited and collected on the basis of morphological and physiological functions. Human constitution is the material basis of human activities and working ability. Constitution is a pathological concept formed in the development process of TCM theory. Cihai interprets "body" as the body; "body constitution" refers to nature and essence. Traditional Chinese medicine believes that the human body constitution is a qualitative feature, its purpose is to increase and reduce the viscera, meridians, Qi and blood, Yin and Yang [6].

Physical health refers to the human body gradually forming the characteristics of physical and mental stability in the process of growth through the influence of habits and other factors. In kinematics, physical health is generally summarized as body shape, physical fitness, and physical function. Physical health level as the material basis of human health, to a certain extent directly determines the individual health level I wish you good health.

### **2.2 Related Factors Affecting Children's Physical Development**

Currently, research has focused on whether physical development is influenced by certain physical factors. When the parents were high, their height, weight, and other physical characteristics were very high. When parents overreact, children can easily react to [7]. Therefore, first, low-weight and obese parents should pay more attention to their children's growth, change their lifestyle, and make their children healthy. Second, the geographical environment. Compared with the south, children in the north of China have a higher body weight. Children living in infected environments develop physically more slowly than those in affected areas. Rural children and overweight children lag behind urban child [8]. Third, the lifestyle. Lifestyle effects include diet and nutrition, work and rest, and sleep quality. Children are growing up, and adequate nutrition can significantly promote their physical development. Fourth, the domestic situation. Domestic economics, parental education, cultural skills, and child growth systems influence children's physical and mental development. To promote the healthy development of children, we need to increase the acquired factors that affect children's physical development. For example, we focus on the impact of the environment and lifestyle, especially the impact of sports training on children's physical development, and conduct physical activities effectively and scientifically.

There are many factors related to pediatric constitution. For example, in these studies, it was found that the constitution of children living in Poland is affected by climate and environmental factors; control factors and acquired factors are the two most important factors affecting their physical effect. The acquired factors included include the environment, religious beliefs, dietary habits, water and air, people and habits, which all alter children's constitution to varying degrees.

### **2.3 Children and Young Children**

It is well known that "children" (child) are regarded as a young human from birth to adulthood. However, "children" is not a professional term in the legal definition. Although age is taken as the classification standard, has always been widely debated in the academic field of children due to the different understanding of this concept[9]. In theoretical or traditional concepts,

"child" is identified as the young age, logically, "child" is the "life course" stage, the extension of this stage, and the age structure, in psychology, "children", with the age range of 6-14 complying with the "nine-year compulsory education". In the judicial practice community, the age stage of "children" varies according to the legislative system and application of different countries (regions). As an important part of childhood, "early childhood" is a key period for children's rapid physical and mental development. In this period, there were new developments in both the "body", "brain nerve", and "heart" or "intelligence". How to define the age range of early childhood? Clinical medicine gives two views: one is 1-3 years old is defined as early childhood, the other is 3-6 years old [10].

### **3. Experiments**

#### **3.1 Experimental Subjects**

This paper compares the constitution of Chinese and Polish children, studies the constitution distribution of Polish children, analyzes the constitution differences of different ethnic, religious and sensitive children, and analyzes the preschool attendance rate of preschool children in China. Climate characteristics directly affect children's physical fitness with their specific factors. Multi-ethnic and multi-religious beliefs affect children's constitution through eating habits, customs and culture, while China affects children's constitution under different growth environments (such as north-south differences) and growth modes. Childhood is the most critical development period for a person's growth period. By studying the influence and differences of children's physique between the two countries, the healthy development of children can be promoted and the cooperation and exchanges between the two countries in children's health can be enhanced.

#### **3.2 Experimental Methods**

The paper mainly uses literature method, questionnaire and qualitative analysis method to compare the status and influencing factors of children's physical fitness in China and Poland. Through reading a large number of relevant literature, we summarized and summarized the basic concepts of "constitution" and "children and children", and understood the importance of children's constitution. The physical status of 361 children living in Polish countries was collected through the investigation method, and the distribution of dietary bias and religious beliefs was studied. It was found that different dietary habits directly affected the physical condition of children and the occurrence of corresponding diseases.

### **4. Discussion**

#### **4.1 Clinical Investigation Case Data Analysis of Children's Physical Condition**

A total of 361 children were collected. Of these, 196 men (54.3%) and 165 women (45.7%) were children aged 1 to 12 years, who had long lived in 16 countries in different regions of Poland. They are from Australia, Pakistan, France, South Korea, Canada, Malaysia, the United States, Japan, Singapore, India, the United Kingdom, Vietnam, Indonesia, China, Hong Kong, and Taiwan. Due to the difference of nationality, age and gender, the general situation is also different, the general situation includes: body, personality, nutritional state, complexion, body, mental state, muscle condition, sleep, voice, sweat, urine and tongue coating, fingerprint and so on are different.

### 4.1.1 Distribution of Dietary Bias and Religious Beliefs

Poland is a diverse ethnic and religious freedom, different races have different religions, different religions have different food culture and habits, such as Buddhism family do not eat beef, mutton meat, hui cannot eat pork and pork related food, vegetarian family perennial not eat meat, India and Islamic families like heavy taste (curry), spicy fried food, European and American countries children like to eat hamburgers, sweet category of high calorie food, clinical observation: different eating habits directly affect children's physical condition and the corresponding disease, as shown in Figure 1.

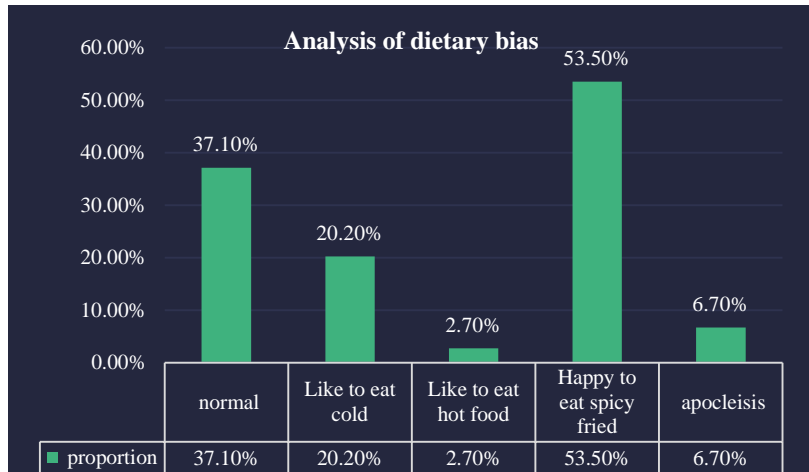


Figure 1: Analysis of dietary bias

In the chart of dietary bias distribution above, Of the 361 children investigated, There were 193 cases of children who liked spicy frying, For 53.5% of the total, In 73 cases of like eating cold food, For 20.2% of the total, There were 10 hot eaters, For 2.7% of the total, The lowest proportion, There were 24 cases of anorexia in pediatric children, For about 6.7% of the total, Normal diet, In 134 children without special bias, For 37.1% of the total, More than half of the children usually like to eat spicy fried food, Together with the special climatic features of Singapore, Also affects the children's hot and humid type constitution, The body disease more hot and humid diseases, as shown in Figure 2.

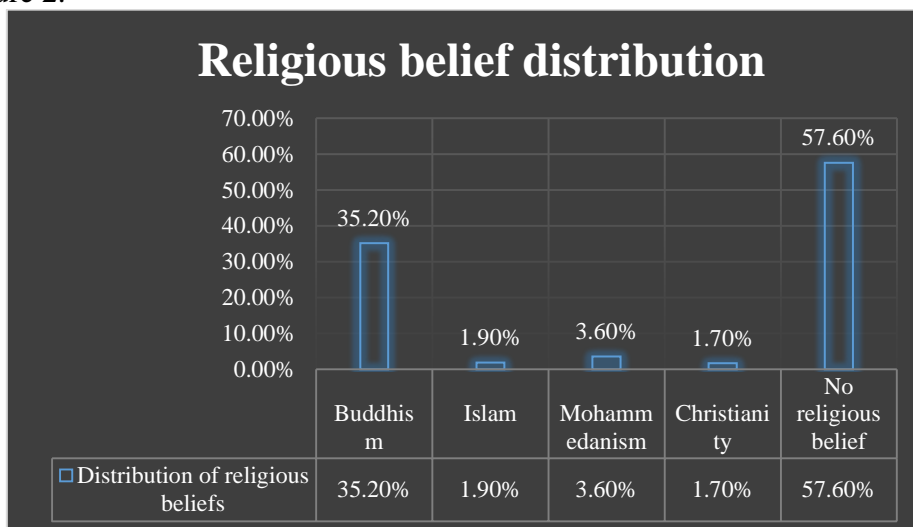


Figure 2: Religious belief distribution

Poland is a relatively free religious country. After the 361 cases of children surveyed, it can be

seen that although most of the children have no religion, the records show that 208 children are without religion, accounting for the total. 6%, but almost all of their parents have their own religious beliefs and will follow their parents in eating their children. Children with a clear religion: 127 Buddhist cases, accounting for 35.2% of the total, occupy the highest proportion of religion, which is also due to the large proportion of children in Chinese families, followed by Muslim children. There are 13 cases, accounting for 3.6% of the total, Islam (note: back and Islam here is mainly the difference between the Middle Asian countries and southeast Asian countries in the survey habit called Muslim, and the Middle East, so the two separately, is actually the same kind of religious name) in seven cases, Christianity has six cases, accounting for 1.9% and 1.7% of the total. No religious children in the majority, but the survey because children are too young, many religious parents and families have not yet held religious baptism ceremony, but in fact the children's daily life customs, eating habits are according to their religious customs, to a large extent the parents' religious customs have affected the children's physical condition.

#### 4.1.2 Comparative Analysis of Kindergarten Attendance Rate

The attendance rate of kindergartens in China is investigated, and the attendance rate is closely related to climate and age, and the attendance rate increases with the warming of climate. Attendance was also increased with increasing age. The main reason affecting attendance is cold. In interviewing the school doctors, we mainly mentioned that children have poor resistance and weak adaptability to climate, especially after small class children do not adapt to kindergarten life, with decreased immunity and strong psychological response, resulting in a sharp decline in attendance, as shown in Table 1.

Table 1: Kindergarten attendance data table in China

	average value	Mar.	Apr.	May	Jun.	Sep.	Oct.	Nov.	Dec.
the bottom class in a kindergarten (%)	86.5	82.1	80.3	88.7	89.9	91.8	91.4	86.5	81.5
the middle class in a kindergarten (%)	90.5	86.4	88.1	90.9	92.5	95.6	92.3	90.2	88.8
the top class in a kindergarten (%)	92.4	91.1	92.1	92.9	94	94	94.9	91.2	88.3

## 5. Conclusions

The declining level of children's physical health and the rising obesity rate are hot issues of global concern. Children are the hope that determines the future development of the country. Children's physical health should be the focus of the country and society, and actively participating in physical activities is the premise to reduce the rate of children's obesity and improve children's physical fitness. Providing children with diverse ways to physical participation and developing efficient promotion mechanisms are important aspects of physical participation. The paper will compare the physical status of kindergarten children in China and Poland. Children are a strong group of growth and development. Growth and development, health and physical fitness are very close to the talents of future growth, and they are also the guarantee of the national and national well-being. Therefore, the growth and development level of children's body directly affects the modernization process of China. Meanwhile, a comparative analysis of the physical conditions of Chinese and Polish children was conducted, explaining the reasons for the physical health differences between school-age children in terms of environment, lifestyle and health education. This paper develops measures and methods suitable for the physical health of children in this group

to provide an important reference framework for decision makers to formulate relevant policies in the process of promoting children's physical activity participation, strengthening the policy guidance and academic guidance of Chinese and Polish government, creating an environment for children to play the important role of promotion mechanism in physical activity, to promote the effective combination of internal motivation and external promotion mechanism of children in physical activity.

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