

An Empirical Study on the Physique Health Status of Minority College Students in Yunnan Universities——Based on the Analysis of Physical Test Data of some Colleges and Universities

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Abstract: The data collected by some colleges and universities in Yunnan are used as research materials, mainly using mathematical statistics, data collection and logic analysis. The body shape and physical function of minority college students in some colleges and universities in minority areas of Yunnan Province. The three types of indicators of physical fitness were statistically analyzed and compared. The results show that the average value of the Achang boys has reached the level of obesity; the male lung capacity and body mass index are at a failing level, and the girls Dulong, Nu and Achang are at a failing level; the boys' strength, the speed of boys and girls, and the boys and girls. Lower extremity strength and male endurance quality are weaker; the endurance quality of minority girls is worse than that of Han nationality female college students in Yunnan Province; the lung capacity and body mass index of minority boys and girls are significantly lower than the national average, and the endurance quality is lower than the national average; minority areas Students' mental capacity is better than the national average. Further analysis believes that genetic factors, natural environment, social and economic development, and living customs affect the physical health of minority college students. In the process of school physical education and extracurricular sports activities, we should pay close attention to the physical health of minority college students.

1. Research Background

The researchers have studied and analyzed the physical health problems of students in primary, secondary, primary and secondary schools. There are some ethnic minority college students in the colleges and universities in the minority areas of Yunnan Province in China, such as Dulong, Deang, etc. This group has not attracted the attention of relevant experts, scholars and sports workers because of the small number. On the contrary, we should pay more attention to the group of extremely minority college students, pay attention to their physical and mental health, understand their physical health status, and make horizontal and vertical comparisons and make reasonable suggestions. Only in this way can we improve the physical health of Chinese college students as a whole. The level also reflects the humanistic care for college students in minority areas. On the basis of the physical health test required by the state, using the advantages of the members of the research group, the physical health data of minority college students in Yunnan undergraduate colleges were collected, and the statistics and related analysis were analyzed.

2. Physical Condition of Minority College Students about Body Shape in Yunnan Province

In the national physical fitness test of students, height and weight are taken as the main test indicators, because these two indicators can reflect the degree of physical development of students

in school to a certain extent, and are also conducive to measurement and evaluation. Body Mass Index (BMI), which is derived from height and weight, is a number obtained by dividing weight (kg) by height (m) squared. It is a standard commonly used in the world to measure the degree of obesity and health. Too large or too small BMI may increase the risk of disease. Currently, the reference standards for BMI used in China are formulated on the basis of the standards of the international health organization (WHO). When $BMI < 18.5$, thin; $18.5 \leq BMI \leq 23.9$, normal; $BMI \geq 24.0$, overweight; $24.0 \leq BMI \leq 27.9$, overweight; $BMI \geq 28.0$, obese; and $BMI \geq 40.0$, very severe obesity. By the statistics found that the boy a handful of basic national average height between 1.68 m to 1.69 m, pumi the average height of only 1.64 m, average weight is opposite bigger, achang boys boys 6 a handful of national average BMI except achang, the other 5 are within the normal range, the average of the boys in achang is 24.17 has reached full-figured degree; The average height of female dulong, deang and jinuo nationalities is lower than 1.60m, while that of nu, achang and pumi nationalities is higher than 1.6m. The BMI of female students in six minority nationalities is within the normal range. An independent sample t-test was conducted on the average BMI of 6 minority ethnic groups, and it was concluded that $p < 0.05$ ($t = 10.03$) was statistically significant. The BMI of male students was higher than that of female students. LSD test was used to compare the BMI of 6 minority ethnic groups in pairs. The difference in BMI between dulong and jinuo ethnic group, pumi ethnic group and ethnic group was not statistically significant ($p > 0.05$), while that between dulong and deang ethnic group, nu ethnic group and achang ethnic group was statistically significant ($p < 0.05$). There was no statistically significant difference in BMI between the two groups ($p > 0.05$), while there was a statistically significant difference between the two groups ($p < 0.05$). There was no significant difference in BMI between kino, nu and pumi ($p > 0.05$), while there was significant difference between kino and achang ($p < 0.05$). There was no significant difference in BMI between nu nationality and achang nationality ($p > 0.05$), while there was significant difference between nu nationality and pumi nationality ($p < 0.05$). There was no significant difference in BMI between achang group and pumi group ($p > 0.05$).

3. The physical condition of minority college students about Body function in yunnan province

The so-called vital capacity is to point to the person's biggest inspiratory hind does the gas quantity that the biggest expiratory place can exhale, it is the one important index that weighs human heart and lung function, we also often will judge the student's heart and lung function with this. Vital capacity bmi refers to the ratio of human body's vital capacity to body weight, that is, the relative value of vital capacity per kilogram of body weight to reflect the degree of correlation between vital capacity and body weight. It is mainly used for objective quantitative analysis of different ages, genders and groups. University of our country developed from different age groups of vital capacity of body mass index (bmi) criteria, college boys: 78 lung capacity or less body mass index 84 for good, 68 or less lung capacity or less body mass index (bmi) of 77 or less for good, 55 lung capacity or less body mass index (bmi) to pass the exam, 47 66 or less lung capacity or less body mass index acuities were to fail, 54 women: 64 lung capacity or less body mass index of 70 or less for outstanding, 54 lung capacity or less body mass index (bmi) of 63 or less for 43 lung capacity or less good, body mass index (bmi) 53 to pass the exam, 35 or less lung capacity or less body mass index or less 42 to fail. The vital capacity and vital capacity body mass index of 6 minority nationalities in yunnan province are shown. The statistical results showed that: the body mass index of vital capacity of male students in 6 minority ethnic groups was less than 54, which was at the level of failing. Among the female students, deang, jinuo and pumi are in the passing level, while dulong, nu and achang are in the failing level. In order to better understand the difference of vital capacity bmi between the six minority ethnic groups, LSD test was used for pairwise comparison, and it was found that the vital capacity bmi was significantly different among the ethnic groups.

4. The Physical Condition of Minority College Students about Body Quality in Yunnan Province

Physical quality indexes of the physique test: male, the girl standing long jump, male, pull-ups 50 m girls, boys and girls sit-ups, male and female ZuoWeiTi proneness, girls and boys 1000 m 800 m, the standing long jump and pull-ups main test students' power quality, the former test students' lower limbs explosive power, which tests students' upper body strength; In the speed quality test, 50m mainly tests students' displacement speed ability. Flexibility quality is the ability of the human body to complete large movements, which is affected by the mechanical characteristics of human body structure and joint structure. Endurance quality refers to the human body's ability to work muscles for a long time. Male students 1000m and female students 800m are the mixed metabolic energy supply based on aerobic metabolic energy supply. These two indexes can well reflect the endurance level of students. Pull-ups need to overcome their own weight, which can effectively reflect the strength of the upper limbs of the boys. Through the statistics of the physical quality of a very few ethnic groups in yunnan province, the results showed that the passing rate of the boy pull-ups was 79.94%, and about 1/5 of the boys failed. The 50m standard reaching rate of male students was higher than that of female students, but the excellence rate of female students was 9.25% higher than that of male students, which was 5.32%. Girls sit-up rate is higher, only 1.94% of the girls failed, indicating that the girls' waist and abdomen strength is better; The standing long jump reaching the standard rate of male and female students was basically the same, and the failure rate was 12.32% and 11.17% respectively, indicating that the lower limb explosive force of male and female students was relatively weak. Girls' failure rate of 800m was significantly lower than boys' failure rate of 1000m, and the excellence rate was also higher than boys, indicating that girls' endurance quality was better than boys'. From the overall compliance rate, the strength quality of male students, the speed quality of male and female students, the lower limb strength of male and female students, and the endurance quality of male students in 6 minority ethnic groups in yunnan province are relatively weak. Therefore, physical education teachers should pay attention to them in the teaching process.

5. Correlation Analysis of Physical Health Data of Minority College Students in Yunnan Province

5.1 Indicators of Body Function

From the data of lung capacity, male students: except achang nationality, the lung capacity value is relatively high, the other five ethnic groups are basically at the same level, and the relatively high lung capacity value of achang nationality may be related to their relatively large weight. Female: the lung capacity, lung capacity and body mass index of the nu are relatively low. The nu is a multinational ethnic group that also lives in the gaoli gongshan district in the northern kachin state of neighboring myanmar and the upper reaches of the nmekikai river. The vital capacity body mass index of male students in 6 minority ethnic groups was less than 54, which was in failing level. Girls deang, jino, pumi at pass the levels, but failed in the drung, clan and achang in levels, 6 a handful of national lung capacity and vital capacity index weight is not dominant, but living in the plateau of the minority students plain students strong adaptive capacity of endurance project, such as 800 m 1000 m in boys, girls after the test, test of yunnan minority students the phenomenon such as headache, nausea and vomiting after significantly lighter than college students from outside the province, shows that 6 a handful of national college students' heart reserve ability is stronger, This may be related to the fact that ethnic minority students in yunnan live in the plateau, work as farmers at home, climb mountains and go to school.

5.2 Physical Fitness Index

Among the physical indexes reflecting strength, speed, endurance and flexibility, male students: the standing long jump performance of nu nationality is relatively weak, with an average of only

195.75cm. The average score of 50m of dulong nationality and deang nationality is higher than 8s, which is relatively weak. The flexibility of deang nationality is relatively poor, with an average of only 6.32cm. Pull-up nu is the best, achang is relatively weak; In terms of endurance quality, achang is weak. Female student: standing long jump nu nationality is relatively weak; Achang race speed quality is relatively poor but the waist strength is relatively good; Primi people have relatively good endurance quality. In terms of physical quality of male and female students, the excellent rate of female students is higher than that of male students, but the failure rate is also higher than that of male students, showing a polarization phenomenon. The lower limb strength of male and female students has little difference. In terms of endurance quality, girls' endurance quality is better than boys'. According to the statistical results, we can find that the excellent rate of physical fitness indicators of the six minority nationalities has their own merits, some indicators are relatively poor, and there is no nationality that is obviously weak on the whole. Although the physical shape of minority college students is affected by the local economy, climate and living habits, many college students from rural areas have been engaged in physical labor since childhood, often climbing mountains and going to school on mountain roads.

5.3 Body Shape Indicators

The average height of male students from six minority ethnic groups-dulong, deang, jinuo, nu, achang and pumi -- is less than 1.70m, lower than the national average of 1.72m, and their weight is also lower than the national average of 63.5kg. The average height of female students of dulong, deangs and jinuo is lower than the national average, and the average weight is equivalent to the national average. Body shape indicators are affected by genetic factors, local natural environment, social and economic development, and life customs. At low latitudes of the college students' height is generally lower than in the high latitudes of college students in yunnan province, in addition, the backward economy in the plateau of the minority nationality areas, many rare plantation nationalities retained, mountain planting, livestock gathering, agricultural production and living ways, staple food with corn, millet, barley, potato, soybean and taro is given priority to, complementary with a small amount of rice and wildlife, diet structure is relatively single, such as derung eclipse two meals, breakfast is generally highland barley Fried noodles or barbecue yams, dinner is given priority to with rice made of corn, rice or millet.

Conclusion

To sum up, as a population of at least six of ethnic minorities in yunnan province, the physical health of university students should cause our attention, because this part of the group's population is relatively small, easy to be ignored, through test research we can clearly understand the yunnan 6 a handful of people's physical health, thus in daily to us in the process of sports teaching put forward higher request, to targeted sports intervention, to understand the characteristics of physical health of every nation, suit the remedy to the case. In addition, the state colleges and universities should strengthen the construction of campus sports fitness facilities, meet the demand of the different national student's fitness, and second, because of the different ethnic groups have different national culture, as after the undergraduate course colleges and universities in yunnan province in addition to cultivate qualified according to the requirement of the national sports education professional personnel, should also follow the local ethnic groups, combining traditional folk sports activities, introduce the folk sports in the sports classroom, to encourage more minority students to go deep into the physical exercise; Finally, on the premise of ensuring the teaching quality of physical education, the school should increase extracurricular sports activities for college students, increase the number of sports clubs and improve the quality of sports clubs so that students can have more exercise platforms.

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