

Research on the Influence of Basketball Teaching in College Physical Education Courses on Students' Physical Health

Changxin Liu

Shandong Communication & Media College, Jinan, 250200, China

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Abstract: The drawbacks of traditional physical education teaching are becoming increasingly prominent, which contradicts the current concept of physical education teaching. Its teaching organization pursues strict discipline, emphasizes the authoritative role of teachers, and emphasizes the central position of teachers; Its teaching method is relatively single and lacks changes, with obvious characteristics of indoctrination teaching, explanation and demonstration, decomposition teaching, repeated practice, and circular practice, neglecting the subjectivity of students. In this regard, this article conducts research on the impact of basketball teaching in college physical education courses on students' physical health. We focus on basketball textbooks to carry out the reform of college physical education teaching, laying a good foundation for the formation of students' lifelong sports awareness. Therefore, focusing on basketball textbooks and reforming physical education teaching in universities can be promoted. In teaching practice, it has been tested and achieved ideal teaching results. The physical health status of students has undergone significant changes. Basketball teaching in physical education courses has a significant impact on students' flexibility, body shape, and height. In terms of physical function and physical fitness, the designed basketball teaching course intervention has a significant impact compared to traditional basketball teaching intervention.

1. Introduction

Faced with increasingly fierce social competition and severe employment situation, the pressure on college students is increasing, and the academic burden is also becoming heavier and heavier. Therefore, physical education elective courses have become the main way for college students to exercise. How to enable students to learn and apply what they have learned in each physical education elective course, thereby promoting their physical health level, has become a new topic for physical education teachers. Basketball is a very common sports activity, and both adults and teenagers can participate in it. Basketball attracts many basketball enthusiasts with its unique charm. The drawbacks of traditional physical education teaching are becoming increasingly prominent, which contradicts the current concept of physical education teaching. Its teaching organization pursues strict discipline, emphasizes the authoritative role of teachers, and emphasizes the central position of teachers; Its teaching method is relatively single and lacks changes, with obvious characteristics of indoctrination teaching, explanation and demonstration, decomposition teaching, repeated practice, and circular practice, neglecting the subjectivity of students[1]. So only by gaining a more scientific understanding of the impact of basketball on people's physical fitness can we conduct sports training more scientifically. Otherwise, not only will it not promote the improvement of physical fitness, but it will also increase the number of injuries to athletes, which is counterproductive. In terms of schools, the importance they attach to sports, as well as the level of improvement in venues, facilities, equipment, and systems, have a direct impact on students' physical fitness. Due to the expansion of university enrollment, the school's sports fields and facilities are severely insufficient, which has restricted the normal development of physical education classes and extracurricular physical exercise, which will inevitably have a negative impact on the physical fitness development of students[2]. This article attempts to study the impact of basketball teaching in college physical education courses on students' physical health. The

ultimate goal of physical education teaching is to improve students' physical health level, cultivate their interest in sports, and strengthen their awareness of sports. This article explores the effectiveness of modern basketball teaching designed through new research on improving students' physical health. Our vision of reforming physical education teaching in universities with a focus on basketball textbooks has been tested in teaching practice and has achieved relatively ideal teaching results. The physical health status of students has undergone significant changes. This study responds to the national policy call on students' physical health and is a specific practice of implementing the spiritual instructions of relevant documents, This is very necessary to address the related issues of physical health among college students in China [3-4]. These have laid a good foundation for the formation of students' lifelong sports awareness. Therefore, focusing on basketball textbooks and reforming physical education teaching in universities can be promoted.

2. Concept of physical health

The concept of health has changed with the deepening of human understanding of the objective world. In the past, due to the influence of traditional concepts and secular culture, as well as the limitations of the development of science, technology and medicine, people's understanding of health was simply understood as the absence of disease, and the absence of disease was regarded as the only criterion for measuring health [5]. The concepts of "constitution" and "health" are different. The same healthy people have different constitutions, so we should comprehensively evaluate a person's physique from the aspects of shape, function, physical quality, adaptability to the environment and climate, disease resistance and so on. Constitution "constitution" refers to the inherent and relatively stable characteristics of human individuals in morphological structure and functional activities, which are related to psychological character. Physical fitness can reflect the level of human life activities and sports ability, so it is the basis for choosing fitness exercise.

Physical exercise is a natural attribute of human beings, and it is also a necessary condition for the full development of life activities, reflecting human social attributes [6-7]. In order to define its connotation and avoid being confused with the three-dimensional concept of health, 'constitution' is taken as the attributive of 'health' to show its connotation. It is intended to show that physical health is only one aspect of health, that is, the level of physical health, and "physique" is used instead of "body" in expression. It is intended to show that physical health is only one aspect of health, that is, the level of physical health, and "physique" is used instead of "body" in expression. There are many factors that affect physical strength, which are closely related to heredity, environment, nutrition and physical exercise. Heredity only provides the possibility or prerequisite for the condition and development of physique, and the strength of physique depends on the acquired environment, nutrition, hygiene and physical exercise. Therefore, scientific exercise in a planned and purposeful way is the most active and effective means to enhance physical fitness [8].

3. Research on the Influence of Basketball Teaching in College Physical Education Courses on Students' Physical Health

3.1. The impact on students' flexibility

In the process of basketball teaching, physical education courses focusing on basketball are carried out, so that students can learn and learn the basic skills of basketball, avoid the disadvantages of teaching everything in the past and learning nothing well, enable students to master a sports skill that can exercise their bodies systematically, and at the same time better stimulate students' interest [9]. Basketball players sometimes need a large range of movements when doing actions, and athletes need good physical control at these times. Because basketball is a relatively antagonistic sport, it requires athletes to have strength when doing actions. Physical fitness is the basic ability of human muscle activity. Under the mediation of the central nervous system, the skills of various organ systems are comprehensively manifested in muscle work [10]. Physical qualities generally include strength, speed, endurance, agility and flexibility. Through the

implementation of basketball teaching in physical education, this paper chooses the flexibility test project. As shown in Table 1, through the research on the students' performance in basketball class in a university, it shows that the students' performance in basketball class in a university can really improve their flexibility, health and physical fitness.

Table 1 Changes in flexibility indicators before and after basketball class

| Group | Test time | $X \pm S$ | Mean difference | Sig |
|------------------|---------------------|------------------|-----------------|-----|
| Basketball class | Before class starts | 15.25 ± 5.11 | 6.28 | 0 |
| Basketball class | After class starts | 18.26 ± 7.42 | | |

By using the correct methods and exercising appropriately, one can improve their physical fitness level in various aspects. In basketball, disguised sliding can enhance the flexibility of athletes' knee and ankle joints. It can be seen that it is reasonable to focus on basketball teaching in physical education courses. It not only promotes students' growth and development, but also comprehensively develops their physical fitness. More importantly, students have better learned the basic skills of basketball [11-12]. In the process of completing technical actions, make significant technical moves. At this point, if athletes have poor flexibility, it is difficult for them to complete beautiful movements, which is not related to their muscle strength and explosive power. Therefore, flexibility plays an extremely important role in basketball.

3.2. Influence on students' body shape

In basketball teaching of physical education course, students' sports memory can be developed through the participation of sports perception, and it plays an important role in developing students' personality, enhancing students' self-information, mediating students' psychological emotions, self-judgment and self-restraint ability through competition. However, basketball teaching in physical education course has an important influence on students' body shape, and the results are shown in Table 2.

Table 2 Comparative analysis results between height groups

| Gender | Intervention test | Experimental group | Control group | F | P |
|------------|-------------------|--------------------|------------------|-------|-------|
| Schoolgirl | 1 | 153.2 ± 1.48 | 150.4 ± 1.49 | 2.145 | 0.153 |
| | 2 | 158.4 ± 1.48 | 156.4 ± 1.51 | 2.457 | 0.118 |
| Schoolboy | 1 | 168.4 ± 1.68 | 165.2 ± 1.54 | 0.485 | 0.471 |
| | 2 | 170.5 ± 1.55 | 171.4 ± 1.48 | 0.488 | 0.625 |

From Table 2, it can be seen that the simple effect of the girls group is not significant before the intervention test, $F=2.145$, $P=0.153$, which indicates that the height data of the two groups are consistent before the experiment, indicating that the class indicators tend to be consistent, and the experimental groups are meaningful for subsequent analysis; After the intervention, the simple effect of the group was not significant, $F=2.457$, $p = 0.118$; It may be that the intervention time of teaching experiment is short and the effect is not significant; It can be concluded that the effect of modern teaching intervention group on height is not significant compared with that of traditional teaching intervention group. In the male group, before the intervention, the simple effect of the group was not significant, $F=0.485$, $P=0.471$, which suggested that the height data of the two groups were consistent before the experiment, indicating that the class indicators tended to be consistent, and the experimental groups were meaningful for subsequent analysis; After the intervention, the simple effect of the group was not significant, $F=0.488$, $p = 0.625$; It can be concluded that there is no significant difference in the effect of modern teaching intervention group on height compared with traditional teaching intervention group.

3.3. The impact on student weight

Teenagers are at the peak of skeletal muscle growth. Regular participation in basketball activities

can increase muscle strength, toughness and fiber thickening. At the same time, it can also increase endurance and shape a perfect body shape; Improve the coordination and sensitivity of joints. In this regard, the influence of basketball teaching in physical education course on students' weight has an important influence. Basketball teaching in physical education course has an important influence on students' weight, and the results are shown in Table 3.

Table 3 Multiple comparison analysis results of test frequency within the weight group

| Gender | Group | Number of measurements I | Number of measurements J | Mean difference | P |
|------------|--------------------|--------------------------|--------------------------|-----------------|-------|
| Schoolgirl | Experimental group | 1 | 2 | 0.421 | 0.024 |
| | Control group | 1 | 3 | 0.856 | 0.037 |
| Schoolboy | Experimental group | 2 | 3 | 0.558 | 0.001 |
| | Control group | 1 | 3 | 0.317 | 1.002 |

According to Table 3, it can be seen that the experimental group of female students showed significant differences in paired comparison between 1 and 2, as well as between 2 and 3. The experimental group of male students showed significant differences between 1 and 2, and between 1 and 3. Under traditional teaching intervention, paired comparison found that only the control group of female students showed significant differences, There is a significant difference between 2 and 3, indicating that the intervention in the experimental group has a good effect on the weight of students.

4. Conclusions

Basketball teaching in physical education course is of great help to improve the health of teenagers. According to the physical condition of teenagers, systematic and planned training will greatly promote the overall development of teenagers' physical quality and physiological development. Analyzing from the characteristics of students' physical quality, the present situation is not optimistic. Some quality levels can be maintained at a certain level, and the improvement degree is not obvious, such as flexibility. Although this quality has its own characteristics, if it is not exercised for a long time, its flexibility will decline with age. Keeping students' flexibility at the original level is already an affirmation of the effectiveness of course learning, but it is more ideal if there will be obvious growth and improvement. Basketball teaching in physical education course has a great influence on students' flexibility, body shape and height. In terms of physical function and physical quality, the designed basketball teaching course intervention has a more significant effect than the traditional basketball teaching intervention. It has effectively changed the past situation that the teaching materials are complicated, the teaching process is "superficial" and the teaching effect is poor. It has enabled students to expand and extend their physical health through physical education class's teaching and extracurricular sports activities, which can effectively stimulate students' subjective initiative, improve students' physical exercise time and quality, play an important role in improving teaching effect and teaching quality, and have a positive impact on improving students' physical health. More deeply implemented the guiding ideology of "health first".

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