INFILTRATION MODEL OF MENTAL HEALTH EDUCATION IN COLLEGE PHYSICAL EDUCATION

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Abstract
Mental health, essential to modern education, is a necessary condition for the healthy growth of college students. Many colleges have attempted to combine mental health education with physical education, with the aim to improve the effectiveness of physical education. This paper designs an infiltration model of mental health education in college physical education. The model covers three stages, namely, interaction, classification and evaluation. Next, the model was applied to the physical education of students randomly selected from four colleges. The teaching effect was evaluated by three indices: students’ acceptance, the influencing factors of the classroom, and those of mental health. The results show that 72% of the subjects had a high recognition of the infiltration model; 70% of the subjects were concerned the most about teaching style and the fun of teaching; the mental health of all subjects was improved to different degrees through the physical education by our model. The research results provide an important guide for integrating mental health in physical education and promoting sports activities among college students.

Key words: Mental Health Education, Physical Education, Infiltration, College Students.

INTRODUCTION
College students, outstanding human resources of the society and the future of the country, should have not only good ideological and moral quality, scientific and cultural quality, and physical quality but also have good psychological quality. Mental health education is an essential part of quality-oriented education for college students. It is an important way to carry out the fundamental task of building moral education and promote students’ comprehensive and healthy development. Meanwhile, it is also an important task to improve the quality of ideological and political education for college students (Yang, 2010). Mental health education in Chinese colleges and universities started late in the mid-1980s. In the past 30 years, mental health education for college students has undergone various difficulties, but achieved remarkable results. In recent years, scholars of China and abroad put forward a lot of solutions to address the problems. Kitzrow (2003) surveyed the mental health of college students and found that the need for psychological education in colleges and universities was so urgent that she proposed to set up counseling centers for students. Rockland-Miller & Eells, (2006) developed a telephone shunt program to improve the ability of timely intervention for students with psychological disorders. Yao & Lu (2007) proposed the development of positive mental health education. They advocated to include the training objectives of positive psychology in mental health education to cultivate students’ positive psychological quality. Levin, Hayes, Pistorello et al. (2016) developed a web-based self-help prevention program to address the psychological problems of college students. On the basis of the studies aforementioned, the
authors find that most of the methods require students to be treated and learn independently after class, which significantly reduces the effect of psychotherapy and learning. It is well known that people with mental illness seldom seek psychological help, which students think takes up too much of their time.

Aiming at integrating mental health education with physical education, the authors aim to shape students’ wholesome personality through innovative ways of education. First of all, the investigation of the current situation of college students’ mental health make the authors believe that it is urgent to find suitable means of mental health education. The authors find the inner connection between psychological education and physical education. Physical education has unique advantages. Therefore, an “interaction-classification-assessment” method based on physical education class is put forward, which brings mental health education into physical exercise. This approach can address the existing problems naturally and efficiently. Due to the changes in the environment, the stress of learning and the complex interpersonal relationships, the mental health of college students have become problems worthy of attention (Kraft, 2011). If young students can not be guided to establish a good psychological state, it may cause irreparable tragedy both to their families and the society. In order to make college students have a healthy mental state and help the society to cultivate qualified human resources with comprehensive abilities, in this paper, the authors focus on putting forward new ways of mental health education and discuss the feasibility of psychological health education infiltrating into physical education classes. On the basis of summarizing the existing results and combining with the psychological status of college students, the authors believe it is of great importance to propose a new way of mental health education. Therefore, a model combining the advantages of physical education and psychological education is put forward. To test this idea, the authors conduct a five-month experiment and scientifically analyzed the results. The results showed that 72% of the students are highly receptive to the method, beyond expectations. It shows that the method the authors proposed is feasible and will be further improved in the follow-up experiments.

**STATUS OF COLLEGE STUDENTS’ MENTAL HEALTH**

In order to fully understand the psychological situation of college students, a series of questionnaires are developed on the platform “Survey Star” for a sampling survey. In order to ensure the representativeness of samples, the authors randomly visit several different types of colleges and universities. Furthermore, the authors talk to the students before they fill in the questionnaires anonymously. A total of 150 questionnaires are send out and about 70 people are interviewed (Shang, Tian, & Zhang, 2017). 132 questionnaires are collected, of which 125 are valid. They believe that a lot of students around them have psychological problems, accounting for about 35.2%. About 90% believe that their classmates have a series of minor psychological problems. Therefore, it can be concluded that the overall mental health of college students is not optimistic, and mental health education for college students is crucial (Zivin, Eisenberg, Gollust et al., 2009). Data obtained are as shown in Figure 1.

**Figure 1. A survey on mental health of people around**

![Figure 1](image)

The authors further investigate whether college students believe they have psychological problems or not. It is found that college students with occasional psychological problems are in the majority of the respondents, accounting for about 72.8%. Besides, only 15.2% of those who have never had psychological problems matches the answer to the question "Are there many people with psychological problems around you?", which enhances the comparability and effectiveness of comprehensive analysis. These two results indicate that college students will inevitably have a series of psychological problems in their development and life, which is
a universal phenomenon. Data obtained are as shown in Figure 2.

Next, the authors look at how often students go to counseling center, and the results are pretty grim (Eisenberg, Golberstein, & Gollust, 2007). Those who never went to counseling center account for 52.8% of the total, indicating that the mental health education for college students in China is far from enough in terms of emotional security, problem prevention, symptom management, and crisis transformation. Data obtained are as shown in Figure 3.

**Figure 2. A survey on personal mental health**

![Image of a pie chart showing the frequency of personal mental health counseling.

**Figure 3. Frequency of psychological counseling of college students**

![Image of a bar chart showing the frequency of psychological counseling.

THE NECESSITY OF INTEGRATING PHYSICAL EDUCATION WITH MENTAL HEALTH EDUCATION IN COLLEGES AND UNIVERSITIES

It is the requirement of quality-oriented education

The quality-oriented education enriches the connotation of physical education in colleges and universities. In physical education, attention should not only be paid to the training of students’ physical quality but also their mental health education. In order to cultivate human resources meeting the requirements of the new era, it is an essential to impart mental health knowledge to college students and address their mental health problems. Teachers should help students get out of the wrong area of thinking, produce a correct understanding of physical exercise, and mobilize the enthusiasm of students’ to physical exercise fully, so that students can actively participate in sports activities, and can achieve a physical and mental coordination. Indeed, the integration of physical education and mental health education in colleges and universities is an inevitable requirement of quality-oriented education and should be highly valued (Tian, Shang, & Huo, 2018).

It helps to improve the quality of physical education

A large number of studies and practices show that students who love sports often achieve more ideal results in physical exercise, and they tend to have few physical injuries or safety problems in physical exercise. However, students who deal with the adverse reaction are easily to get hurt in physical education. Therefore, in order to ensure students' expectations for physical exercise, colleges and universities should strengthen the integration and infiltration of physical education and mental health education, so as to stimulate students' enthusiasm for physical exercise. Finally, students in high spirits during physical exercise tend to have good psychological quality and further improve the quality of physical education.

It expands the ways of mental health education

Teachers engaged in physical education should not regard physical education as merely a physical exercise training course but place mental health education on the same status as physical exercise skills and skills teaching. In addition to physical exercise, college students can receive good ideological education and emotional edification with the help of physical education classes. Students will form a positive and optimistic attitude towards life and develop the habit of physical exercise so that setbacks will not easily defeat them. On the path to success, they will go further.
ESTABLISH AN INFILTRATION MODE OF "INTERACTION - CLASSIFICATION - ASSESSMENT" BASED ON PHYSICAL EDUCATION

Advantages of physical education

In order to cultivate all-round human resources for the society in the new era, the authors put forward an "interaction-classification-assessment" mode of psychological health education based on physical education and finally realize effective and natural psychological counseling for students (Sharp, Hargrove, Johnson et al., 2006). There are four main causes that the authors integrate mental health education with physical education courses:

(1) Continuity
When students are teenagers, they receive compulsory physical education in the nine-year compulsory education. Physical education runs through the whole learning stage of students and has the inherent advantage of continuity. Mental health education in physical education can be more readily acceptable to students and arouse their resonance. Meanwhile, it allows students to form more lasting impressions, which can have a profound influence on mental health.

(2) Competitiveness
Competition is an essential characteristic of sports and also the reason for the continuous development of competitive sports. Competitive sports can cultivate students' sense of teamwork and fighting spirit, which play a decisive role in students' mental health.

(3) Team spirit
Physical education has the characteristics of team spirit, no matter it is sports training or teaching process, it is a collective behavior. This kind of teaching activity with team spirit can enable students to find their spiritual foundation and collective value in the activity and form a healthy state of mind in social communication.

(4) Recreation
Physical education is often a relaxed and happy process, and students are easy to accept in a highly relaxed state of mind permeated with mental health education. At the same time, through appropriate physical exercise, students can get a happy mood in sports and vent negative emotions.

The infiltration mode of "interaction - classification - assessment"

In order to solve the disadvantages of traditional mental health education and shorten the distance between students and teachers, the authors propose a solution based on physical education class. The authors divide the class into two stages - during and after class, and connect two stages through the thoughts of "interaction - classification - assessment." This omnidirectional and three-dimensional teaching model is beneficial to students' acceptance.

In the class, the authors mainly employ the interaction and classification of two ideas to guide the instructions. Interaction requires teachers to set questions or activities that resonate with students in a planned way in class, to stimulate students' interests and actively express their ideas to teachers and classmates. The classification requires teachers to separate males from the females, the physically fit from physically unfit. Each student can be fully respected, and it will achieve the goal of mental health education finally (Rosenthal & Wilson, 2008).

Interactive teaching can shorten the distance between teachers and students and stimulate students' trust and attachment to physical education teachers. Students will take the initiative to cooperate with physical education and actively participate in physical exercise. At the same time, interactive teaching also helps to create a lively and active classroom dynamics so that students can fully relax both physically and mentally. Meanwhile, students' interest in physical exercise can also be significantly improved. In physical education in colleges and universities, teachers should know that students play a dominant role. Students' ideas should be respected, and their needs should be met to the greatest extent. Teachers can take the initiative to guide students to think so that students can bravely express their ideas. Teachers also should create opportunities for students to express themselves, so as to cultivate their confidence and sense of achievement. In order to arouse students' interest, teachers should develop reasonable and efficient teaching plans and organize enjoyable group activities regularly according to the students' situation. In this case, the development of mental health education in colleges and universities will be smoother and more efficient.

College students have obvious individual differences. Their physical quality, psychological characteristics and emotional needs are different. Therefore, teachers must adopt
classified teaching model. Teachers should make teaching content suitable for different types of students according to their needs and abilities. At the same time, in order to ensure that students of different categories can achieve a steady improvement in physical and psychological quality, they can use diversified teaching methods to increase the interest of physical education. For example, teachers can assign challenging sports to students who are physically fit. On the contrary, exercise for students with poor physical fitness should be reduced appropriately. In this way, students will feel happy from physical exercise, and their physical exercise needs also can be fully met. As a guide for students, teachers should help them when they are in trouble. Teachers must let their students know that failure is not a terrible thing, and success comes after failures. When students are in trouble, teachers should calm them down and encourage them to face the challenge bravely. In this way, students can temper their will so that they can face the difficulties in life positively.

In addition to mental health education in class, teachers also need to assess students’ status and reactions in and after class. Because different students have different thinking and psychological problems. Therefore, teachers need to develop appropriate teaching programs according to these situations, in order to promote their mental health education step by step (Shang, Bai, Tian et al., 2018).

Under the stress of learning and employment in the future, college students feel physically and mentally exhausted, and they often have no interest in taking part in physical exercise. Students want to have more time to learn specialized knowledge, and they show little enthusiasm to sports, which makes physical education teaching in a dilemma. By strengthening the integration of physical education and mental health education, the authors can understand and analyze the psychological state of students. According to the psychological problem students have in their study and life, effective measures should be taken to release their stress during physical exercise. It is important that teachers should carry out assessment reasonably after the physical education activity, and let students bravely express their own opinions and ideas to increase their understanding of themselves through the way of self-assessment and mutual assessment. At the same time, teachers should provide students with substantive advice and help them develop appropriate physical exercise programs and goals, improving the autonomy and effectiveness in physical exercise. Finally, these allow students to release their stress and emotions in a right way, and are conducive to the overall development of students.

**EXPERIMENTS BASED ON THE INFILTRATION MODE OF "INTERACTION - CLASSIFICATION - ASSESSMENT"**

In order to verify the effectiveness of this method, the authors randomly select 142 students from 4 colleges and universities for investigation. Through the early guidance and planning for the physical education teachers, the authors carry out a five-month experiment to infiltrate mental health education into the physical education class. Later, the authors eliminate 16 students who left halfway and conduct a questionnaire survey and interview based on the 126 students. The results showed that the method was effective and advanced.

Firstly, the authors investigate how much students like this kind of mental health education. It is found that 72% of the students are very receptive to this approach, and only 22% did not like it. So this new approach can be extended to colleges and universities to replace the traditional form of mental health education, and the data obtained are as shown in Table 1.

**Table 1. The degree of students’ love about this way**

| Degree  | Frequency (person) | Percentage (%) | Valid percentage (%) | Cumulative percentage (%) |
|---------|--------------------|----------------|----------------------|--------------------------|
| Very like | 15                | 12             | 12                   | 12                       |
| Like     | 76                | 60             | 60                   | 72                       |
| General  | 7                 | 6              | 6                    | 78                       |
| Unlike   | 22                | 17             | 17                   | 95                       |
| Not at all | 6                | 5              | 5                    | 100                      |
| Total    | 126               | 100            | 100                  |                          |
Table 2. The factors of students' acceptance

| Multiterm                  | Respondents | Percentage (%) | Individual percentage (%) |
|---------------------------|-------------|----------------|----------------------------|
| The style of class        | 36          | 28.7%          | 72.3%                      |
| The content of teaching   | 26          | 20.6%          | 52.6%                      |
| The interest of teaching  | 43          | 33.8%          | 70.4%                      |
| The interaction of class  | 21          | 16.9%          | 41.5%                      |

According to the above statistics, the authors interview 28 students who do not like physical education. By further investigation, it is found that these students agree that it is good for them to integrate mental health education into the curriculum. The authors further ask, "would you like it if you switched to something you were interested in?". They give a consistent answer that they would accept it. Therefore, it is worth popularizing to infiltrate psychological education into college curriculum, but it needs to be decided according to each student's situation.

Next, the authors study on the students about "What factors affect your acceptance?". Four common reasons are listed, and the data obtained are as shown in Table 2.

As can be seen from Table 2, about 70% of students believe that teacher's teaching style and teaching interest affect their interest in learning and the effect of acceptance (Wei & Xie, 2018). Therefore, we can infer that most students attach great importance to the role of teachers, and the personality and quality of teachers will directly affect their acceptance. In the future education, teachers should attract students by showing their personality and designing excellent and interesting contents. Through arousing students' interest, the mental health education will naturally penetrate into the class, so that students can receive psychological counseling while learning professional knowledge.

Finally, the authors interview each student in turn to gain insight into the changes in their mental health status over the past five months and assess their scores on the scale. The authors construct an assessment system based on the mental health criteria developed by Maslow and Mittelman in their book Abnormal Psychology. The general assessment is as follows: 0 to 5 points, your mind is very healthy and can smoothly adapt to reality. 6 to 13 points, which is roughly in the healthy range, if you are still in the city and you are doing mental or demanding work, you must correct the idea that neurosis has nothing to do with you. 14 to 25 points, you are mentally tired and should reduce your workload or change your mood by taking a vacation or relaxing. 26 to 30 points, red flag, you are likely to suffer from neurosis and need effective mental counseling. By comparing the students' mental health before physical education, the authors find that the number of students in the first two sections increased, and the number of students with more or less psychological problems in the last two sections decreased correspondingly. Among them, the number of students in a section of 14-25 points decreased significantly to 23, and there is also a slight decrease in the number of students in the section of 26-30 points. These results indicate that it is feasible to permeate "interaction - classification - assessment" mental health education based on physical education. Data obtained are as shown in Figure 4.

Based on the summary of the data obtained, the authors find that most of the students had improved their mental health after five months of psychological education penetration. From Figure 4, we can see that the number of people in the healthy section has increased, and correspondingly, the number of people in the other section has decreased. Especially for students in the 14-25 range, the decrease was satisfactory. Since this experiment is conducted only for five months, this study is preliminary and there are still many aspects to be further studied in the future.

Figure 4. Comparison of students' mental health
CONCLUSIONS

It is beneficial for college students' mental health to infiltrate mental health education into physical education. The process of physical exercise itself is the process of promoting students' intellectual development, and the content and function of physical education also lay a solid foundation for mental health education. The integration of physical education and mental health education in colleges and universities is an essential direction for the development of physical education in the new era. Teachers engaged in physical education in colleges and universities should further interact with students, adopt the level-based teaching mode, and assess students objectively and scientifically. In order to achieve the goal of qualified human resources training, teachers should help students set up great ambitions and goals and make them complete the physical exercise plan in a planned and purposeful way. In this study, only one course is assessed experimentally, and no comparison is made with other courses and further studies will be carried out in the future. Due to the great significance of college life to students, we should attach importance to their mental health so as to cultivate all-round human resources meeting the requirements of the times and social development.

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