



Positive Effects of Physical Exercise on College Students

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Abstract

As an important evaluation basis for college students' health education, mental health plays a pivotal role in the education and training of college students. Physical exercise is a positive lifestyle that can help people build good time management skills and gain benefits from all kinds of sports, with a positive impact on physical and mental health. The article introduces the significance of physical exercise for college students' mental health, and the analysis of the common problems of contemporary college students' mental health. The physical exercise enhances the level of college students' mental health, so that through physical exercise, college students solve common mental health problems in college students, enhance their mental toughness, and promote comprehensive healthy development.

Subject Areas

Psychology

Keywords

Physical Exercise, Mental Health, Positive Effect

1. Foreword

Mental health refers to having normal intelligence, positive emotions, moderate emotions, harmonious interpersonal relationships, good personality quality, strong will and mature psychological behavior. Nowadays, the increasingly increasing pressure of study, life and employment has caused problems in the mental health of college students, and affected the physical and mental health growth of individuals. The university stage is a key stage for a person's mental development and maturity, and it is an important period before the society. Because

college students basically belong to a special social group, even psychological problems also have certain limitations, concealment, plus people's understanding of mental illness has a certain blind area and misunderstanding, think the obvious mental illness is a psychological problem, leading to college students early some psychological abnormalities are ignored. According to the current materials and data, the mental health status of college students can not be underestimated. If they do not pay attention to the mental health problems at this stage, it will cause irreparable losses to their future life. In order to build the college campus into a more stable, harmonious and healthy paradise, the whole society, especially the college teachers, needs to pay high attention to the mental health problems of college students [1]. This article advocates for college students to actively engage in physical exercise by studying the positive effects of physical exercise on their mental health.

2. Research Background and Significance

2.1. Social Context

College students generally have some psychological confusion, and the reason is mainly from the individual and the society. It is mainly manifested in the following three aspects: personal maturity and tolerance degree, some difficulties in understanding oneself and others, and some difficulties in dealing with interpersonal relationship and interpersonal communication. This group itself has a lot of pressure, because they have received many years of education, social family placed high expectations, their expectations and have the ability level, has mastered the knowledge experience differences, has a very strong desire to success, but college students psychological development is not mature enough, relatively lack of social experience, resilience is poor. Therefore, a series of psychological problems of college students have emerged, specifically, the psychological problems of college students are generally concentrated in depression, autism, paranoia, compulsion, anxiety and other aspects, and more serious people even appear schizophrenia symptoms. With the development and progress of the society, people pay more and more attention to health. Physical health is the foundation of health, and mental health is also crucial. In recent years, the mental health problems such as body anxiety and appearance anxiety among college students have become increasingly prominent. In recent years, more and more studies show that physical exercise has an important positive effect on the mental health of college students.

2.2. Status Quo of Domestic Research

The status quo of the mental health status of college students in the new period

By selecting SCL 9,010,484 post-00s students from Weifang Nursing Vocational College were investigated on mental health, and 10,431 valid questionnaires were recovered, with an effective rate of 99.49%. The SCL 90 scale evaluates whether the subjects have some psychological symptoms and their severity from the perspectives of feeling, emotion, thinking, consciousness, behavior, living habits,

interpersonal relationships, diet and sleep. According to the experience, the screening standard of this survey is the total score of 160 points, or the number of positive items > 43, or any factor score of 3 points. The assessment showed that the number of psychological abnormalities was 878, accounting for 8.42 percent of the total number. Among them, the total number of abnormal boys was 213, accounting for 2.04% of the total boys, and 665 girls, accounting for 6.38% of the total girls. From the results of the screening and interview, we can see that the mental health of college students is generally good, most of the students' mental health, but a considerable proportion of students have poor psychological state, some students even have serious psychological problems. In terms of gender differences, the overall mental health status of girls is not as optimistic as that of boys. The main manifestations of psychological problems: the average score 3 indicates symptoms, the survey found that the current "post-00" higher vocational college students do have a certain degree of mental health problems, the top three problems are strong with stress and interpersonal sensitivity and depression, 1.42% of students had compulsive symptoms, 0.92% of students had interpersonal sensitive problems, and 0.91% had depressive symptoms [2].

Physical exercise situation and current situation of college students in the new period

In November 2019, the official account named "Southwest Sports Science and Technology" released a questionnaire survey on the Wechat mini program. The survey content mainly analyzed college students' physical exercise habits, physical exercise attitude, sports intensity and so on, and the survey results were displayed by voting. By April 2020, the public account had received 2269 questionnaires. Among them, low-intensity and high-frequency sports are widely recognized by college students, especially the physical exercise with night running, table tennis, basketball and other sports as the main body, which is highly sought after in university campuses. From the proportion of the questionnaire survey, 71.46% of the male college students participated in the questionnaire survey. Thus, the results of the survey are more inclined to the physical exercise habits of male college students. At the same time, I only analyzed the data of female college students, and found that they mainly focused on walking, tennis, badminton and so sports. At the same time, from the perspective of physical exercise intensity and exercise tendency of college students, most college students have relatively low physical exercise intensity, and college students who exercise more than 2 times a week only account for 40% of the total questionnaire, and most college students only participate in physical exercise activities to meet social needs as the main time on weekends. Therefore, the enthusiasm and initiative of college students in physical exercise are relatively low, and their social needs are the main motivation for college students to participate in physical exercise. In addition, according to the sports guidelines for Chinese college students, college students are more inclined to have some interesting sports items, and lack enough interest in some repetitive and mechanized sports items. At the same time, college students are more inclined to

expand the practical content of sports, and it is difficult to form enough interest in the single exercise programs. Therefore, through comprehensive analysis, college students' physical exercise thinking is relatively solidified, which has a certain exclusion for the traditional single physical exercise mode, and has a certain exercise exploration ability, and they are willing to integrate into the physical exercise environment through social practice [3].

Yan Jun pointed out in their article "The Mediating Effect of Coping Modes and Subjective Well-being: An Experimental Study on the Impact of Physical Exercise on the Mental Health of College Girls" that physical exercise is a positive coping mode; The duration of physical exercise can directly reduce anxiety and sexual psychological disorders, while the intensity of physical exercise can directly reduce social aggression and sexual psychological disorders; the intensity and duration of physical exercise have indirect effects on anxiety, social aggression, and sexual psychological disorders through subjective well-being.

2.3. Current Situation of Overseas Research

1) A large study in Norway shows that adolescents who actively participate in team sports, especially high school girls, have greater self-esteem and higher satisfaction with life, which is also true for college students, including physical activity and poor mental health, self-harm and suicide attempts.

2) The Secret of Exercise for Mental Health: Molecules of Hope state that muscles release chemicals into the blood when they contract. Myokine molecules, also known as "hope molecules", these small proteins cross the BBB and enter the brain into the brain, which can improve our mood, learn, exercise, protect the brain from the negative effects of aging and fight depression. Exercise also releases neurotransmitters such as dopamine, norepinephrine and serotonin, which all have positive effects on the brain.

3) In foreign countries, physical exercise is considered to be a means to improve and maintain a good psychological state. According to a 1983 survey by Kean (Kyan), 60 percent of the 1750 psychologists believed that physical activity should be used as a treatment to eliminate anxiety.

3. Let the Students Have a Rational Understanding of the Mental Health Standards

In the process of school physical education, students should fully understand the standards of mental health, so that students can have a correct understanding of their own physical condition and psychological level. So that you can self-evaluate and adjust according to the standard. Combined with the actual situation of Chinese college students, the mental health standards are mainly manifested in:

- 1) Normal cognitive ability Normal cognitive ability such as keen observation and strong memory.
- 2) Stable mood. In terms of the overall mood, people with happy, stable, and moderate mental health with positive emotions such as happy, satisfied, happy,

gratified, happy are in a positive and optimistic state full of hope.

3) Good quality of the will. A mentally healthy college student should have a clear and reasonable purpose for study and life, and have the firm belief and conscious action to achieve the purpose. Its behavior shows decisiveness, tenacity, self-control and perseverance. Self-control and resilience can show the extent of their mental health. Restrict their bad desires from harmful stimulation temptation abide by the law to overcome bad habits and quit bad habits only mental health people can do.

4) Good interpersonal relationship. Good interpersonal relationship is an important symbol of the mental health of college students. It is also an important condition for maintaining mental health. In the study and life, he is willing to communicate with classmates and teachers, both stable and extensive interpersonal relationship and his own bosom friends can objectively evaluate others and their own happy happiness and worries. Take one's strengths to complement one's own weaknesses.

5) Perfect personality. Sound personality can be regarded as the core factor of college students' mental health. The so-called sound personality. Refers to the harmony and unity of psychological and behavioral personality.

6) rational act. Mental health is always directly and indirectly reflected in the current behavior. Therefore, reasonable behavior is the embodiment of healthy psychology [4].

4. The Role of Physical Activity in Mental Health

1) Physical exercise is helpful to improve the working ability of the nervous system and promote the improvement of intelligence level

Sports help to relieve muscle tension and the tension of daily life. A period of physical exercise can reduce the electrical activity of the left hemisphere, trained athletes or physical exercise have obvious α wave on the EEG, and α wave is the brain wave when the brain is in a completely relaxed mental state. Patients with anxious nerves have fewer α waves, replaced by more brain waves with higher frequency than α waves. Physical activity can slow down the stress response and improve the work efficiency of the brain. Scientist Kary (CREW) and others counted 34 related research papers pointed out that compared with people who are used to sitting, people who often engage in physical exercise activities have less physiological stress response, if there is a stress response, they can recover as soon as possible, improve the brains' ability to work.

2) Physical exercise can improve college students' self-awareness and self-confidence

Active individual participation in physical exercise generally promotes self-perception. Moderate intensity aerobic training can greatly improve the aerobic quality and the self-sensory ability to cope with stress, and can increase happiness. Stephens (1988)'s [5] study also demonstrated that there was a positive correlation between the level of physical practice and mental health. At the same time, in the

process of doing sports, individuals can master certain sports skills and be competent for certain tasks, which can contribute to the establishment of self-confidence.

3) Physical exercise is helpful to improve the interpersonal relationship among college students

People who do not know each other may get together in the playground because of sports, discuss sports skills with each other, help each other, learn from each other, and even break through psychological barriers and defense lines, discuss the unspeakable secrets of life and psychology in the sports field, and get comfort and encouragement from friends. Therefore, I can get to know more like-minded friends through sports. We work hard for the same game, experience the joy of success, experience the tacit understanding of cooperation, this harmonious interpersonal relationship is very beneficial to the mental health of college students. Zhang Yong's (2006) [6] research shows that college students who occasionally participate in physical exercise have much more psychological problems in interpersonal communication than those who regularly participate in physical exercise. Physical exercise has a high effectiveness in promoting college students' interpersonal communication skills.

4) Physical exercise is conducive to cultivating college students' pioneering and innovative spirit and team spirit of cooperation

Sports are a special form of physical movement, is also a strong cooperative movement (such as basketball, volleyball, football, table tennis, badminton, tennis doubles match, etc.), the students to closely cooperate in sports activities, play to the power of team cooperation, also need to change in difficulty tactics, to overcome the opponent. Therefore, in the process of sports activities, it can cultivate the collectivism spirit and innovation ability of college students.

5) Physical exercise is helpful to improve the depression, anxiety, tension and other emotions of college students

Depression, anxiety and tension are the most common emotional troubles among college students. According to PYAN (US) findings, sports are an effective way to treat anxiety disorders. At present, in the developed countries in Europe and the United States, physical exercise has been used as a means of mental illness treatment and rehabilitation. American psychologist Driskau has conducted a running test on students, and found that running can successfully reduce college students worries during the exam. Yin *et al.* [7] pointed out in the Experimental Intervention of Basketball and Calisthenics on College Students Mental Health that aerobics cognition-exercise intervention has a significant role in alleviating and improving compulsive symptoms and paranoia factors, while basketball exercise-cognitive intervention has a significant positive effect on depression and hostility factors. Li Xuezhai [8] showed in the influence of Different exercise programs, intensity and time on anxiety, depression and self-concept that college students with exercise habits and those without exercise habits have significant differences in anxiety, depression and self-concept. Long time table tennis and badminton exercise and medium time physical fitness exercise are more likely to

achieve the psychological benefits of anxiety; moderate intensity exercise is more suitable to reduce anxiety than intensive exercise. Yuan *et al.* [9] in the Experimental Study of Latin Dance Exercise on Intervention of College Students It shows that under the medium exercise intensity, Latin dance exercise has a positive effect on improving the depression of college students. Currently, physical exercise and music exercise therapy as a means to improve and maintain mental health have proved to be an effective complement to traditional depression treatment. Therefore, it is necessary to pay attention to the role of different physical exercise methods in mental health and choose the most suitable sports items

6) Physical exercise is helpful to improve the mood of college students

Mood is a quiet and lasting emotional state for a certain period of time. There are two kinds of positive and negative mood. Studies show that college students gradually become at a high risk of psychological crisis, universities every year for neurasthenia, interpersonal reaction, poor psychological ability, emotional vulnerability, quit school of students increasing, suicide suicide also occurs, so improve college students' bad mood also become the need of mental health education. The 1993 Abele-Brehm study analyzed the effects of physical exercise and physical activity on mood, and showed that different types of physical exercise methods have good effects on mood and are not restricted by age and gender. Foreign studies show that physical exercise also plays an important role in the treatment of psychogenic diseases, improving coping strategies, and the adjustment of psychological discomfort before maturing women's menstruation [10].

5. Physical Exercise to Improve the Mental Health Level of College Students

1) Improve the school physical activity system

Physical exercise is an important guarantee for the physical and mental health of college students, but the study task of college students is heavy, the employment pressure is greater, it is difficult to take the initiative to participate in physical exercise, which requires the supervision and encouragement of schools. Colleges and universities need to establish a perfect sports activity system for college students, formulate physical education teaching measures, ensure that the types of sports activities are diverse, and stimulate students' interest in participation. Colleges and universities can refer to the "National Fitness Regulations" and other relevant policies to strictly implement the physical education courses offered by schools. For example, the school is required to open one physical education class every day, 3 physical education classes every week, and ensure that college students have no less than 30 minutes of physical activities every day, and constantly innovate physical education teaching methods, so that the physical education curriculum is both interesting and quality. In order to enrich the teaching content of physical education, the school should incorporate sports teaching and competition activities into the content and teaching system of university physical education.

2) Introduce the knowledge of sports psychology

Integrate physical psychology knowledge into physical exercise, so that students can better understand their own emotions and psychological state, and learn to regulate and manage themselves when participating in physical activities. The introduction of the knowledge of sports psychology plays an important role in the mental health of college students. By understanding and applying the knowledge of sports psychology, college students can maintain a good attitude. For example, through psychological training and relaxation skills, college students can learn how to deal with the stress and tension in the competition, keep calm and confident; by organizing college students for psychological training and stress training, college students can improve their psychological resilience, enhance self-confidence and self-efficacy. It can be seen that the knowledge of sports psychology can help college students to better understand their own emotions and psychological state, so that they can effectively manage their emotions, and always maintain a good attitude.

3) Actively carry out mental health education

After graduation, college students must step out of the school, to face various social challenges, no strong psychological quality is absolutely not. In essence, mental health education is not a temporary impromptu education, nor is it to solve the current mental health problems of college students, but for the long-term development of college students. Mental health of college students will affect the harmony and stability of the whole society, and even to the prosperity and development of the motherland also plays a significant role. In this respect, colleges and universities must combine physical activities with mental health education, actively carry out mental health education, and guide college students to pay attention to their mental health. Firstly, write mental health education textbooks suitable for the age of college students, mental health education into the university physical education curriculum system, to ensure that students can systematically receive mental health education during the school; secondly, carry out a variety of mental health education activities, such as campus psychological counseling, campus psychological lectures, campus psychological drama, campus group counseling, so that college students can improve self-cognition and emotional regulation ability in practice; finally, the school should create mental health records for college students, always pay attention to and evaluate the mental state of every college student, do a good job in early prevention and intervention work.

4) Strengthen the construction of physical education teachers

In order to better reflect the physical exercise in the position of college students mental health education, universities need to strengthen the construction of physical education teachers team, cultivate a batch of mental health education ability of sports teachers, regular professional training and examination to them, make them not only proficient in sports skills, and understand mental health knowledge, to provide students with timely mental health guidance and help. At the same time, the government should also introduce relevant policies to bring mental

health education into the national education system, clarify its status and importance in education, and ensure the responsibility and obligation of schools and social institutions at all levels to carry out mental health education through legislation. Furthermore, physical exercise and mental health education are two inseparable fields, which play an extremely important role in promoting the comprehensive development of college students. Only by creating teachers with both physical exercise knowledge and mental health education knowledge, can we really help college students to establish a healthy mentality [11].

6. Conclusion

Physical exercise not only has an impact on the human body, but also has an impact on human psychology. Physical exercise has a positive effect on improving individual mental health level, regulating emotional state, eliminating psychological barriers and improving social adaptability. The cultural background, age characteristics and social role characteristics of college students determine the characteristics of their mental health. In the process of mental health education for college students, we should grasp the positive impact of physical exercise on mental health, use appropriate sports projects to adjust students' psychological state, promote the development of students' mental health, so as to achieve the all-round development of body and mind. Appropriate medicine, teaching students in accordance with their aptitude, as long as perseverance, will be able to receive good results. As the main new force of the future society, college students' mental health is also a powerful factor affecting the future social development. Physical exercise can adjust and ease the bad psychological symptoms, and can promote the psychological status of college students to the development of health. Physical exercise has a positive effect on promoting the mental health level of the human body [12].

Conflicts of Interest

The author declares no conflicts of interest.

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