

IMPACTS OF COVID-19 ON COLLEGE STUDENTS' SPORTS

IMPACTOS DA COVID-19 SOBRE O ESPORTE DOS ESTUDANTES UNIVERSITÁRIOS

REPERCUSIONES DEL COVID-19 EN EL DEPORTE DE LOS ESTUDIANTES UNIVERSITARIOS



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ABSTRACT

Introduction: Students have realized the importance of physical education after the epidemic of COVID-19 and have increased the demand of seeking a healthy lifestyle even during home isolation. In contrast, the current physical education system in colleges and universities does not meet the real demands of its students, demonstrating a barrier between teaching and learning. **Objective:** Study students' lifestyle and sports habits during the epidemic of COVID-19. **Methods:** An online questionnaire was conducted to investigate and analyze students' home exercise environment, lifestyle and exercise practices, and exercise psychology during COVID-19. A total of 1274 valid questionnaires were obtained. The data from the questionnaires were entered, sorted, and analyzed, and relevant figures were drawn and discussed. **Results:** It was noted that students mostly preferred outdoor exercise equipment and hands-free activities outside the home. This picture reversed during the COVID-19 epidemic when students preferred indoor equipment. In terms of exercise programs, an effective exercise program is needed to allow people to exercise effectively during home isolation. **Conclusion:** Physical education teachers in colleges and universities should select the right means of physical fitness to combine sports and sports life that can be practiced at home, according to the actual situation of students and their psychological demands. Students should be given a better sports experience during the quarantine process, stimulating them to stay positive and with good physical quality, aiming at strengthening immunity and reducing the risk of infection by COVID-19. **Level of evidence II; Therapeutic studies - investigation of treatment outcomes.**

Keywords: COVID-19; Physical Education and Training; Students; Life Style.

RESUMO

Introdução: Os estudantes perceberam a importância da educação física após a epidemia da COVID-19 e tem aumentado a demanda da busca por um estilo de vida saudável mesmo durante o período de isolamento doméstico. Em contraste, o atual sistema de educação física nas faculdades e universidades não atende às demandas reais dos seus estudantes, demonstrando uma barreira entre o ensino e a aprendizagem. **Objetivo:** Estudar o estilo de vida e os hábitos esportivos dos estudantes durante a epidemia da COVID-19. **Métodos:** Foi realizado um questionário online para investigar e analisar o ambiente de exercícios em casa, o estilo de vida e práticas de exercício, além da psicologia do exercício sobre os estudantes durante a COVID-19. Um total de 1274 questionários válidos foram obtidos. Os dados dos questionários foram inseridos, classificados e analisados, sendo as figuras relevantes desenhadas e discutidas. **Resultados:** Notou-se que os estudantes majoritariamente preferiam equipamentos de exercício externos e atividades com as mãos livres fora de casa. Esse quadro inverteu-se durante a epidemia da COVID-19, onde os estudantes preferiram equipamentos para uso interno. Em termos de programa de exercícios, é necessário um programa de exercícios eficaz para permitir que as pessoas façam exercícios físicos eficazes durante o isolamento doméstico. **Conclusão:** Os professores de educação física nas faculdades e universidades devem selecionar o meio certo de aptidão física, de modo a combinar esportes e vida esportiva que possam ser praticados em domicílio, de acordo com a situação real dos alunos e suas demandas psicológicas. Deve-se dar aos alunos uma melhor experiência esportiva durante o processo de quarentena, estimulando para que se mantenham positivos e com boa qualidade física, visando um fortalecimento da imunidade e redução do risco de infecção pela COVID-19. **Nível de evidência II; Estudos terapêuticos - investigação dos resultados do tratamento.**

Descritores: COVID-19; Educação Física e Treinamento; Estudantes; Estilo de Vida.

RESUMEN

Introducción: Los estudiantes se han dado cuenta de la importancia de la educación física después de la epidemia de COVID-19 y ha aumentado la demanda de la búsqueda de un estilo de vida saludable, incluso durante el período de aislamiento en el hogar. Por el contrario, el actual sistema de educación física en institutos y universidades no responde a las demandas reales de sus estudiantes, lo que demuestra la existencia de una barrera entre la enseñanza y el aprendizaje. **Objetivo:** Estudiar el estilo de vida y los hábitos deportivos de los estudiantes durante la epidemia de COVID-19. **Métodos:** Se realizó un cuestionario en línea para investigar y analizar el entorno de ejercicio en el hogar, el estilo de vida y las prácticas de ejercicio, y la psicología del ejercicio en los estudiantes durante COVID-19. Se obtuvo un total de 1274 cuestionarios válidos. Los datos de los cuestionarios se introdujeron, clasificaron y analizaron, y se extrajeron y discutieron las cifras pertinentes. **Resultados:** Se observó que los estudiantes preferían sobre todo aparatos de ejercicio externos y actividades de manos libres fuera de casa. Este panorama se invirtió durante



la epidemia COVID-19, en la que los alumnos prefirieron los equipos de interior. En cuanto al programa de ejercicios, se necesita un programa de ejercicios eficaz para que las personas puedan hacer ejercicio de forma efectiva durante el aislamiento domiciliario. Conclusión: Los profesores de educación física de los institutos y universidades deben seleccionar los medios adecuados para combinar el deporte y la vida deportiva que puedan practicarse en casa de acuerdo con la situación real de los alumnos y sus exigencias psicológicas. Se debe proporcionar a los estudiantes una mejor experiencia deportiva durante el proceso de cuarentena, estimulándolos a mantenerse positivos y con buena calidad física, con el objetivo de fortalecer la inmunidad y reducir el riesgo de infección por COVID-19.

Nivel de evidencia II; Estudios terapéuticos - investigación de los resultados del tratamiento.

Descriptores: COVID-19; Educación y Entrenamiento Físico; Estudiantes; Estilo de Vida.

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INTRODUCTION

Due to the outbreak of the covid-19 epidemic, the novel coronavirus is highly contagious and spreads rapidly. The Chinese government has adopted a series of plans for epidemic prevention, which has greatly changed the way students exercise compared with the past.¹ Moreover, due to the prohibition of gathering, many kinds of sports are restricted, Students' sports style has gradually changed from a variety of outdoor sports in the past to home sports with limited ways. Therefore, the epidemic has had a lot of impact on students' sports lifestyle.² Some sports cannot be carried out, which may bring many problems about students' health. How to solve the problems faced by students at home or small outdoor sports during the epidemic is also a difficult problem faced by major colleges and universities.³ The sports team in Colleges and universities should also make targeted plans to deal with these problems, guide students to carry out correct sports methods suitable for epidemic prevention, so as to improve their physical condition.⁴ During the epidemic period, most students carried out some corresponding projects aimed at physical fitness indoors. Due to the prohibition of gathering and even being unable to go out, some competitive sports cannot be carried out. For example, basketball, football, volleyball and other ball games, running, hiking and other events have led to some students losing their sports habits. Moreover, develop an unhealthy lifestyle at home.⁵ Depressed emotions make mental health and physical health decline at the same time, creating a vicious circle. Therefore, colleges and universities should not only correctly guide students' sports methods. We should also pay attention to the cultivation of students' interest in sports and carry out psychological counseling, so that college students have a good work and rest and sports lifestyle during the epidemic, and maintain students' good health.⁶ If colleges and universities want to strengthen the guidance of students' sports lifestyle during the normalization of epidemic prevention and control, they should effectively analyze students' Sports demands, psychological will and sports environment at this time. In view of this situation, 1274 effective questionnaires are collected by means of online questionnaire survey, and these problems are analyzed in detail, so as to provide a strong basis for the optimization of physical education teaching during the epidemic period in Colleges and universities.

METHOD

In order to comprehensively explore the sports lifestyle of college students during the current covid-19 popularity, this paper adopts the way of questionnaire survey. The study and all the participants were reviewed and approved by Ethics Committee of YiLi Normal University(NO.2019YLNUPS077). Firstly, through consulting literature and communicating with some students, PE teachers and parents, the corresponding questionnaire is designed according to the actual situation in the communication interview.

After the preliminary questionnaire design is completed, the pre experiment and expert review of the questionnaire are carried out. Firstly, 20 students are selected to fill in the questionnaire, the filling results and feedback are analyzed, and the questionnaire is preliminarily modified to make it more in line with the current actual situation. Subsequently, this paper consulted eight experts in related fields, and the experts scored and evaluated the questionnaire topics, analyzed the matching degree between the questionnaire and the investigated content and the logic of the questionnaire, modified the questionnaire again according to the expert opinions, and finally obtained the last questionnaire. The whole filling cycle is ten days, 1292 questionnaires are obtained, 18 invalid questionnaires are removed, and 1274 valid questionnaires are obtained, The effective rate of the questionnaire was 98.61%

Use Excel software to input, sort and analyze the information, and sort it into the form of pictures, which is convenient for subsequent research and analysis.

RESULTS

Physical exercise of students during covid-19 epidemic period

Figure 1 shows the survey of students' physical exercise projects. Before covid-19 became popular, the popularity of students' sports projects was outdoor equipment, outdoor unarmed, indoor equipment and indoor unarmed, accounting for 37.83%, 33.59%, 21.51% and 7.06% respectively. During the popularity of covid-19, the popularity of students' sports types was outdoor unarmed, indoor equipment, outdoor equipment and indoor unarmed, accounting for 33.91%, 25.27%, 20.96% and 19.86% respectively. Through the comparison of students' physical exercise items during the covid-19 epidemic period, it can be seen that with the development of covid-19 epidemic, the number of outdoor exercise has decreased significantly, and the number of indoor exercise has increased significantly, especially the indoor unarmed related items have been greatly improved, which is also closely related to the actual situation of home isolation under the current relevant background.

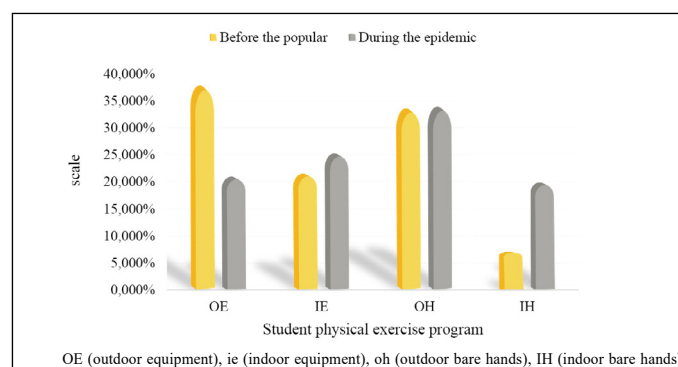


Figure 1. Histogram of comparison of rubber bands in seated horizontal pulling training on land.

Figure 2 shows the survey of students' physical exercise places. Before the popularity of covid-19, the popularity of students' physical exercise places were outdoor stadiums, indoor places, non dedicated outdoor sports venues and home indoor, accounting for 51.18%, 33.05%, 11.30% and 4.47% respectively. During the popularity of covid-19, the popularity of students' physical exercise places was home indoor, non dedicated outdoor sports venues, outdoor sports venues and indoor places, accounting for 34.54%, 30.46%, 20.96% and 14.05% respectively. It can be seen from the comparison before and after that, with the prevalence of covid-19 epidemic, different professional venues, including outdoor sports venues and indoor fitness venues, have been affected by the policy, resulting in closure or restriction of the number of people. Therefore, the proportion of exercise in professional stadiums and gymnasiums decreased significantly, while the proportion of non dedicated outdoor sports venues and indoor travel at home increased accordingly, and the proportion of indoor travel at home increased the most.

Students' in class and out of class sports activities during the popularity of covid-19

In the previous research, it is mentioned that home gymnastics has many benefits for the improvement of body shape and body function. Therefore, in this section, the basic physical quality, body shape, body composition, sports indicators and other aspects are discussed. (Table 1)

Through the analysis of in class and extracurricular sports activities and their relationship with life, it can be seen that at present, the school mainly carries out the teaching mode of combining online and offline. It can be reasonably selected according to the changes of covid-19 epidemic situation, so as to make the effect of physical education teaching higher. In terms of extracurricular sports activities, due to the lack of a certain amount of independent practice, students tend to learn more from live teaching or app courses, so as to formulate a planned training process for themselves. This also reflects that with the gradual development of covid-19 epidemic, people realize the importance of physical fitness. Therefore, the autonomy and enthusiasm of extracurricular sports activities have been greatly improved.

Students' sports consciousness during the popularity of covid-19

As shown in Figure 3, the investigation of students' awareness of sports life is shown. Before the popularity of covid-19, students' awareness

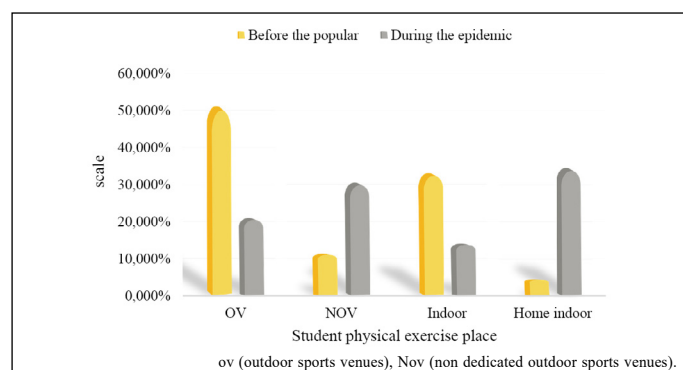


Figure 2. Students' physical exercise places during covid-19 popularity.

Table 1. Students' sports activities inside and outside class during the covid-19 epidemic period.

In class sports activities			Extracurricular sports activities		
Type	Number of people	Proportion	Type	Number of people	Proportion
Online course	288	22.61%	Live practice	366	28.73%
Offline course	169	13.27%	APP punch card	598	46.94%
Online + Offline	817	64.13%	Independent practice	310	24.33%

of sports life was generally valued, relatively valued, less valued, very valued and not valued, accounting for 38.38%, 24.49%, 14.76%, 13.89% and 8.48% respectively. During the period of covid-19 popularity, students' awareness of sports life was followed by great attention, relatively attention, general attention, less attention and less attention, accounting for 37.36%, 24.49%, 23.23%, 9.18% and 5.73% respectively.

Sports life consciousness, in short, is to combine sports knowledge with all kinds of in daily life, and truly integrate sports into life, rather than just regard sports as an independent part of life. Driven by this awareness, in addition to consciously increasing a certain amount of physical exercise, students will also integrate a healthy lifestyle into all aspects of their daily life, such as going to bed early and getting up early, eating healthy food, paying attention to cleanliness and hygiene, maintaining a happy mood, etc. through a good sports lifestyle, students can improve their immune ability, so as to reduce the risk of covid-19 infection, Create a healthier living environment for yourself.

Figure 4 shows the investigation of students' sports awareness. Before the popularity of covid-19, students' sports awareness was generally valued, relatively valued, very valued, less valued and less valued, accounting for 31.16%, 28.41%, 17.11%, 13.89% and 9.42% respectively. During the period of covid-19 popularity, students' sports awareness was followed by great attention, relatively attention, general attention, less attention and less attention, accounting for 44.90%, 28.10%, 16.80%, 6.99% and 3.22% respectively.

Through the analysis in Figure 4, it can be seen that with the gradual development of the normalization of covid-19 epidemic prevention and control, students' sports cognition has been significantly improved. Sports is not only a task assigned by the school that must punch in, or an involuntary activity that must be carried out in order to make themselves healthy, but a positive activity that actively pursues active practice in daily life. As can be seen from Figure 4, compared with before the epidemic, the enthusiasm and autonomy of students' sports have been greatly improved, which will greatly promote the improvement of students' sports effect and their physical condition.

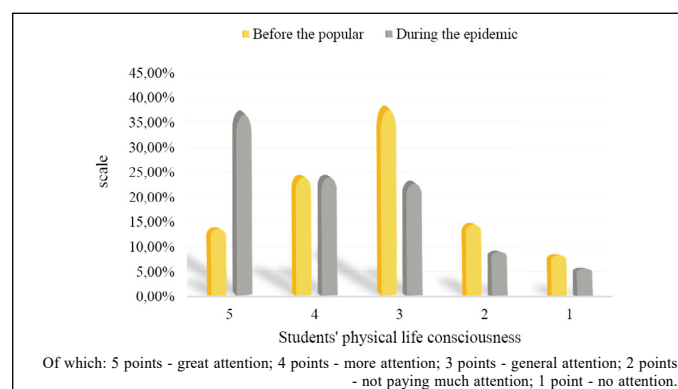


Figure 3. Students' awareness of sports life during the popularity of covid-19.

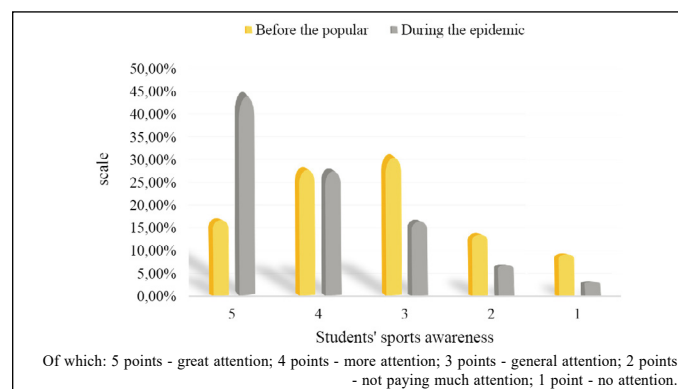


Figure 4. Students' awareness of sports during the popularity of covid-19.

DISCUSSION

Students' sports style during the popularity of covid-19

According to the survey, during the popularity of covid-19, the number of enthusiasts of these sports among students decreased because some sports could not be carried out. The analysis shows that due to the inability to carry out favorite sports, students passively reduce the exercise time of such sports, which makes students lose their exercise habits and interest in the sports. During the popularity of covid-19, most of the sports carried out by students were home-based. These projects are single and the interest duration is short. Lack of diversity and competitiveness, these projects are difficult to attract students. For example, yoga projects following the video, students with fitness equipment, muscle strength training under the condition of sports equipment, sports projects that can be carried out in small places such as rope skipping, and some unpopular gymnastics projects. Because these projects are in daily life, the attention of middle school students is very low. During the epidemic, it can only be carried out passively. Although these projects can improve students' muscle strength, balance ability, coordination ability, endurance and other physical exercise abilities, it is difficult for students to maintain this kind of exercise due to the lack of interest. Therefore, the overall exercise duration of the student group shows a decreasing trend, and students with exercise habits in the past will also reduce the frequency of exercise behavior to varying degrees. From the analysis of various results, it can be concluded that the largest proportion of constraints affecting college students' participation in sports during the epidemic period should be the lack of venues, followed by the lack of sports partners and sports atmosphere, resulting in students' lack of interest in exercise. And these sports behavior related indicators decline, and the degree of decline of girls is greater than that of boys.

To sum up, the sports style of students is affected by the choice of venues, means and environment. During the epidemic period, college students prefer to exercise alone. The main sports venues are indoor or their own courtyards, and sports in public places can hardly be carried out.

College sports team guidance during the popularity of covid-19

How to improve the sports mode and sports state of college students during the epidemic is a problem that needs to be solved by college sports teams. 1. Carry out interesting sports or sports activities at home through various media software to attract students to participate. 2.

Improve the school sports venues and sports equipment to ensure that students can complete all kinds of sports during school. 3. Demonstrate in person and drive students to participate in sports. Increase the base of student sports personnel and create a good sports atmosphere in the whole school. 4. Combine online and offline to carry out physical education, cultivate students' interest in sports and effectively solve students' Sports problems. Take the initiative to ask about the sports status, analyze and summarize, and use the analysis results as the basis for improving the teaching course. 5. Improve the teaching quality of the sports team in time. PE teachers actively learn advanced sports knowledge and sports theory, so as to provide better sports guidance and sports training for students. The school should carry out more training activities for PE teachers and gradually improve the hard strength of the self-education team.

Therefore, as an auxiliary group of students' sports, college sports teams should correctly guide students' sports methods and stimulate students' interest in sports. I need to improve the health of the students. Ensure that during the epidemic period, students can have the standard exercise duration and amount every day.

CONCLUSION

Through the research of this paper, we can see that the current students' sports awareness and sports life awareness have been greatly improved. Students' sports enthusiasm has greatly increased, and they also show their pursuit of a healthy life. However, most students are relatively less involved in sports. Therefore, they need a strong and effective guidance, such as online practice app punch in and sports plan provided by school physical education teachers. At present, the sports venues that students prefer are more ventilated outdoor or their own indoor environment at home. Therefore, college physical education teachers should choose appropriate sports fitness methods according to the current students' actual situation and psychological demands, so as to combine home sports with sports life and bring better sports experience to students. It also enables students to maintain a positive attitude and good physical quality in the process of home isolation, enhance their own immunity, reduce the risk of covid-19 infection, and make students grow up healthily and happily during the normalization of epidemic prevention and control.

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