

The Application of Intelligent APP in College Students' Extracurricular Sports Exercise

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Abstract: With the continuous development of technology, the application of intelligent apps in extracurricular physical exercise for college students is becoming increasingly widespread, providing them with new exercise experiences and choices, and has become an indispensable part of modern college students' daily lives. In the future, with the continuous advancement of technology and the expansion of application scenarios, college students should actively use smart apps for extracurricular physical exercise, cultivate healthy lifestyles and habits. This article aims to explore the current application status, advantages, and impact of intelligent apps in college students' extracurricular physical exercise, and propose several effective application strategies in order to make intelligent apps play a more important role in college students' extracurricular physical exercise.

1. Introduction

Exercise not only helps to improve the physical fitness of college students, but also helps them relieve study pressure, improve learning efficiency, and promote their psychological adjustment and emotional stability. It can be seen that physical exercise is crucial for the development of the physical and mental health of contemporary college students. However, due to the increasingly heavy learning tasks and life pressures of contemporary college students, coupled with the temptation of various electronic products such as mobile phones and computers, the time and efficiency of conducting extracurricular physical exercise have become very limited. In the context of the continuous advancement of science and technology and intelligent devices, sports apps have emerged and shown a good development trend, providing great convenience and strong support for college students' physical exercise. They have become a key assistant for college students to carry out extracurricular physical exercise, providing them with rich choices of exercise modes and customized personalized health management services, providing effective assistance in solving the problems faced by college students in physical exercise.

2. The role of intelligent apps in extracurricular physical exercise for college students

2.1. Scientific guidance for physical exercise activities

Intelligent apps can tailor personalized training plans for college students based on their physical condition, exercise habits, exercise goals, and historical data, including indicators such as exercise programs, intensity, and duration. They can also dynamically adjust according to users' actual progress and feedback, and combine professional exercise knowledge and scientific training methods to meet the needs of different users. At the same time, smart apps can provide rich online course resources such as training courses and instructional videos designed by professional coaches or athletes. These courses and instructional videos combine the latest research results and practical experience in sports science, and have strong professionalism and practicality. College students can learn new sports skills and professional knowledge through the app in their spare time, and improve their sports skills and exercise effectiveness^[1].

2.2. Record and analyze sports exercise data

Intelligent apps can record and accurately track college students' exercise data such as step count,

running distance, speed, heart rate, calorie consumption, etc. in real time, thus comprehensively monitoring physical exercise. These data not only provide users with comprehensive exercise feedback, but also provide a foundation for subsequent analysis and improvement. Intelligent apps can provide detailed exercise reports and suggestions for college students through in-depth analysis of exercise data, helping them comprehensively understand their exercise status and effects, and providing scientific exercise suggestions such as possible problems and improvement directions.

2.3. Supervise and provide feedback on the process of physical exercise

During exercise, smart apps can monitor key indicators such as heart rate and exercise intensity in real-time, providing safety guarantees for physical exercise, for example, providing high heart rate alerts to college students during exercise, reminding them to adjust their exercise intensity, and immediately issuing warnings and corresponding suggestions once various abnormal situations are detected, helping them scientifically develop exercise plans, prevent sports injuries, and ensure their safe and effective exercise. In addition to security measures, smart apps can also provide users with real-time feedback and guidance during exercise. For example, when the user's posture is incorrect or their movements are not standardized, the APP will remind and correct them through sound, vibration, or screen prompts; For users with insufficient exercise, it will help them adjust their training plan and encourage them to increase their exercise time. This real-time feedback mechanism helps users adjust their exercise status in a timely manner and achieve better exercise results.

2.4. Provide a social platform for sports exercise

Many smart apps also have social functions. College students can share their sports achievements, experiences, and photos on the app, and interact with friends to exchange their experiences and feelings of sports exercise^[2]. This social interaction not only enhances the fun of sports, but also stimulates their enthusiasm for sports, forms a positive sports atmosphere, and promotes the dissemination of campus sports culture. At the same time, in order to stimulate users' enthusiasm and motivation for sports, some smart apps also regularly hold various challenges and activities. These activities are usually conducted on a team or individual basis, stimulating users' sense of participation and competitiveness through setting goals, completing tasks, and competing for rankings. College students can showcase their abilities, make new friends, and improve their athletic skills by participating in these activities.

3. The advantages and impacts of intelligent apps on extracurricular physical exercise for college students

3.1. The advantages of applying intelligent apps to extracurricular physical exercise for college students

The application of intelligent apps in extracurricular physical exercise for college students has advantages such as convenience, interactivity, personalization, and scientificity.

Firstly, its convenience is reflected in the popularity of smartphones and apps, allowing college students to engage in physical exercise anytime and anywhere with just their mobile phones, and record and analyze exercise data without the need for additional devices, making it more convenient to understand their own exercise status and not limited by time and space;

Secondly, the social functions of smart apps can promote sharing and interaction among college students during physical exercise. College students can motivate and progress together, making physical exercise no longer boring or lonely, and helping to enhance their interest in sports and increase their participation. Again, smart apps can provide personalized exercise plans and suggestions based on users' physical condition, exercise habits, and preferences, helping college students find the most suitable exercise method for themselves;

Finally, smart apps typically have a wealth of online courses and resources, which are based on kinematic principles and big data algorithms, and are scientifically sound. College students can acquire scientific learning methods and skills, which can help improve their athletic performance.

3.2. The impact of smart apps on extracurricular physical exercise for college students

The application of intelligent apps has a positive impact on areas such as extracurricular physical exercise for college students, mainly manifested in the following aspects:

Firstly, the convenience and scientificity of smart apps make it easier for college students to persist in physical exercise. Through the recording and analysis of smart apps, college students can have a more intuitive understanding of their physical condition and exercise effects, thus paying more attention to health management and improving their quality of life. This helps to enhance college students' health awareness and quality of life, which can promote the formation of good exercise habits among college students;

Secondly, the social function of smart apps enables the wider dissemination and sharing of campus sports culture, promoting the formation of a campus sports culture atmosphere and enhancing college students' sense of identity and belonging to sports;

Finally, the application of smart apps has also driven the development of related industries. With the popularization and application of smart apps in college students' extracurricular physical exercise, it will drive the development and innovation of related industries. Taking the cultural and sports goods industry as an example, in order to meet the demand for smart apps, it is necessary to continuously develop intelligent products, such as smart bracelets, smart watches and other wearable devices, which have become essential for college students' extracurricular sports exercise, promoting the intelligent development of the entire cultural and sports goods industry. Due to the personalized characteristics of smart apps, they can analyze college students' sports data and personal preferences, recommend personalized cultural and sports goods for them, not only improving product satisfaction and loyalty, but also promoting differentiated competition and brand building in the cultural and sports goods industry. Moreover, as a new type of sales channel, smart apps have expanded the sales demand of the cultural and sports goods industry, bringing them more sales opportunities. College students can directly purchase the necessary cultural and sports goods through the app, which is convenient and fast. At the same time, the app can also conduct precise marketing and recommendations based on users' purchase history and preferences, improving sales efficiency and conversion rates.

4. Application strategy of intelligent APP in extracurricular physical exercise for college students

4.1. Strengthen market penetration and resource promotion

The effective application of intelligent apps in extracurricular physical exercise for college students should fully mobilize various forces to achieve market penetration and resource promotion in universities and sports institutions, in order to achieve the growth of college student users and fully play their role.

Firstly, it is necessary to clarify the cooperation objectives and customer positioning. Targeting college students as the target user group for the smart app, and considering their high acceptance of new things and ample leisure time for physical exercise, the smart app is positioned as a powerful assistant for college students' extracurricular physical exercise. By providing personalized training plans, sports data recording and analysis, health management, and nutrition guidance, the app aims to enhance the sports experience and effectiveness of college students;

Secondly, we should actively engage in campus cooperation and promotion. For example, by collaborating with university physical education courses and introducing smart apps as teaching aids into the classroom, teachers can also use the app to assign homework and monitor student exercise data, while students can obtain personalized training plans and feedback through the app. In addition, cooperation can also be carried out by jointly organizing various sports events and activities such as campus marathons and fitness challenges with universities. Smart apps can be used to complete activity registration, check-in, and score recording. During the event, relevant information, live broadcasts, and interactive content can be pushed through the app to increase its exposure and frequency of use, and to increase user participation and stickiness. We can also make full use of

campus promotional boards, posters, broadcasts, and campus networks to promote the intelligent APP. At the same time, student representatives or experience officers can be actively invited to share their experiences and promote the word-of-mouth spread of the app;

Finally, we need to leverage sports institutions to capture the relevant market. Smart apps can invite coaches or experts from sports institutions to join, providing online and offline sports guidance and consulting services for their users. Alternatively, they can promote resources through joint fitness lectures, sports training camps, and other online and offline activities with sports institutions. Smart apps can be used as important participation tools to guide users to download and experience their convenience, thereby expanding their user base and occupying the market. At the same time, by sharing sports venues, coaching resources, etc. with sports institutions, more diversified sports choices and professional guidance services can be provided for college students^[3]. In cooperation with sports institutions, it is also possible to collect and analyze sports data of college students, provide more accurate sports advice and personalized services for college students, improve user trust and dependence, and provide data support for market research and product development for sports institutions.

4.2. Enhance user experience and functionality

Firstly, intelligent apps should recommend personalized training plans and nutritional recommendations for college students based on their exercise preferences, physical condition, and training needs, including training plans, courses, activities, and other items. They can also provide customized sports equipment, nutrition supplements, health consultations, and other services to college students. By meeting their personalized needs, they can increase their dependence and loyalty to the app, and improve their satisfaction and stickiness. For example, during the registration stage, basic information such as age, gender, height, and weight of college students is collected, and their training needs such as weight loss, muscle gain, and physical fitness improvement are clarified. Data algorithm technology is used to tailor the most suitable training plan for them, helping students find exercise methods that meet their needs more accurately. Based on the exercise data and feedback of college students' exercise volume, intensity, heart rate, etc., the training plan is dynamically adjusted in real time. For example, when the user reaches a certain stage goal, the training difficulty is automatically increased; When users pause their exercise for some reason, provide restorative training suggestions to continuously stimulate their exercise motivation;

Secondly, emotional design and user care. We should incorporate emotional design elements, such as warm greetings, encouraging language, and cute animation effects into the app to enhance the emotional connection and sense of belonging among college students; Regularly send birthday wishes, exercise reminders, health tips and other caring information to college-student users, so that they can feel the warmth and care of the APP through user-care, thereby improving user satisfaction and loyalty. In addition, by providing users with diverse types and content recommendations, they can have more opportunities to choose, ensuring user satisfaction and the attractiveness of the recommendation system. It is also necessary to appropriately recommend content that users have not previously encountered or understood, bringing new experiences and discoveries to users and enhancing their interest and participation. For example, in addition to exercise data, it can also provide recording functions for health indicators such as weight, blood pressure, and blood sugar. Through data analysis, it can predict potential health risks for users and provide preventive measures and health advice; Personalized dietary advice, recipe recommendations, and nutritional counseling services can also be provided based on the user's level of exercise and physical condition.

Finally, provide effective incentive measures for college student users to enhance their enthusiasm for continuous use and participation. For example, we should set achievement milestones and other reward mechanisms, and set achievement goals of different difficulty levels such as "daily 10000-step expert" and "continuous exercise for 30 days" based on users' exercise data and behavior, and provide clear feedback and rewards when users achieve an achievement. At the same time, attention should also be paid to the richness of rewards, setting up diverse forms of rewards such as virtual medals, points, coupons, and physical prizes. For example, displaying virtual medals on users' personal pages

can enhance their sense of honor and belonging; Points can be redeemed for various goods or services within the app; Coupons and physical prizes can directly meet users' consumption needs^[4]. In addition, a competition mechanism can be established through the establishment of individual and group rankings to showcase users' rankings in a certain sport or challenge. Users who rank high can receive additional rewards or honors, thereby stimulating their desire to compete. Various challenges and competitions such as "Running Challenge" and "Fitness Check in Competition" can also be held regularly, with clear competition rules and reward mechanisms set to attract users to actively participate and showcase their abilities.

4.3. Promote continuous optimization and technological innovation

Firstly, comprehensively collect users' browsing history, search habits, purchasing behavior, interaction records, and other data to construct user profiles and provide personalized recommendations based on these data. We should clean and organize the collected data, including removing invalid data, filling in missing values, correcting erroneous data, etc., to ensure the accuracy and consistency of personalized recommendation data for intelligent apps. At the same time, it is necessary to regularly collect user feedback, understand user needs and pain points, and continuously optimize the functionality and user experience of the app;

Secondly, continuous monitoring and evaluation feedback should be conducted on the usage status of college student users. For example, the application management team should establish a user feedback mechanism, collect and process user opinions and suggestions in a timely manner, and use them as the basis for continuously optimizing application functionality and user experience. In the process of conducting in-depth analysis of users' exercise data, usage behavior, etc., it is necessary to strengthen the utilization of big data analysis technology, timely discover potential market opportunities and user needs, provide data support for subsequent promotion and product development, and regularly evaluate indicators such as user growth, activity, and retention rate to determine promotion effectiveness, adjust promotion strategies and optimization plans, and ensure the effectiveness and sustainability of promotion activities;

Finally, advanced technology and design concepts should be introduced to enhance the usability, stability, and aesthetics of the app. For example, using AI technology to provide users with more accurate training plans and feedback; By using machine learning algorithms to analyze users' exercise data and behavioral habits, we can help users discover potential problems and improvement directions, continuously improving the accuracy and practicality of personalized customization; Users can also visualize their exercise data in the form of charts, reports, etc., allowing them to have a more intuitive understanding of their exercise progress and results; Explore the application scenarios of new technologies such as VR/AR in sports exercise, create immersive sports experience scenarios for students, and allow them to participate in various sports competitions and challenges in virtual environments^[5]. We can through this novel and interesting way, increase the fun and attractiveness of sports activities, and make students more enthusiastic about participating in sports exercise.

5. Conclusion

In summary, intelligent apps have been widely and deeply applied in extracurricular physical exercise for college students due to their convenience, interactivity, personalization, and scientificity. Their application areas cover scientific guidance of physical exercise activities, recording and analyzing physical exercise data, monitoring and feedback on the physical exercise process, providing a social platform for physical exercise, assisting in physical exercise health management, and many other aspects. In the future, strategies such as strengthening market penetration and resource promotion, enhancing user experience and functionality, promoting continuous optimization and technological innovation should be adopted to enrich the exercise methods of college students, improve their sports experience and effectiveness, and promote the intelligent and personalized development of cultural and sports products.

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