

Based on CMM Theory, the Influence of the Use of Group Fitness APP on Their Exercise Knowledge and Exercise Willingness is Discussed

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Abstract: With the improvement of health awareness, the fitness APP has been widely used among college students. This paper aims to explore the influence of college students using fitness APP on exercise knowledge mastery and exercise willingness based on the CMM (Communication Modality Model) theory. Through the analysis of the development status of fitness APP and the current situation of the use of college students, and the data collected by questionnaires and other methods, the association of the acquisition of exercise knowledge and the stimulation of exercise willingness was analyzed. The study found that the use of fitness APP has a significant impact on the improvement of college students' exercise knowledge, and the exercise knowledge positively affects the willingness to exercise. Meanwhile, interpersonal communication plays a mediating role in the impact of fitness APP use on exercise knowledge. According to the research results, suggestions are put forward for college students and fitness APP developers.

Keywords: Fitness APP; College Students; Exercise Knowledge; Willingness to Exercise; CMM Theory.

1. Foreword

Under the background of the rapid development of science and technology, fitness APP has penetrated into People's Daily life and become an important tool to acquire exercise knowledge and conduct fitness exercise. Especially in the young, lively and energetic college students, the frequency of the use of fitness APP is even more high. Therefore, it is of great practical significance and research value to study the use of fitness APP by college students and the impact of such use on their exercise knowledge mastery and willingness to exercise.

Through an in-depth discussion of college students' use of fitness APP, we can understand what role this tool plays in learning their exercise knowledge and stimulating their willingness to exercise. This will not only help to improve the sports literacy of college students, promote their physical and mental health, but also help to promote the development of the national fitness cause. At the same time, for college students, the correct use of fitness APP can more effectively improve their exercise knowledge and skills, so as to stimulate their stronger willingness to exercise, and cultivate their healthy lifestyle and habits.

Therefore, the purpose of this paper is to analyze the influence of college students' use of fitness APP on exercise knowledge mastery and exercise willingness, so as to provide theoretical support for the cultivation of college students' healthy lifestyle. Through the analysis of the development status of fitness APP, the use of college students, and the use of questionnaire survey to collect data, we will conduct an in-depth analysis of the association of college students' acquisition of exercise knowledge and the stimulation of exercise willingness, in order to draw valuable conclusions. These conclusions will provide a useful reference for the cultivation of healthy lifestyle among college students and for the developers of fitness APP.

2. Literature Review

2.1. Development Status of Fitness APP

With the rapid development of mobile Internet technology, fitness APP has become an important tool in people's daily fitness activities. These apps offer a full range of services ranging from fitness plan making, exercise guidance to health management. According to market research, there are various kinds of fitness APP with different functions to meet the personalized needs of different users[1]. For example, some APPs offer virtual coaching services, while others increase users' fitness fun through social interaction features. It is generally believed in the literature that the fitness APP plays a positive role in promoting the national fitness campaign.

2.2. Current Status of College Students Using Fitness APP

As an active fitness group, college students show high enthusiasm for the use of fitness APP. They believe that the fitness APP can help them learn about exercise more efficiently, manage their exercise programs, and track their progress. However, some studies point out that college students have some problems when using fitness APP, such as blindly following the plan in the APP, ignoring their own actual situation; or the pursuit of freshness, frequent changing of fitness APP, resulting in the inability of continuous and effective exercise[2].

2.3. The Influence of Fitness APP on College Students' Exercise Knowledge and Exercise Willingness

The existing literature shows that fitness APP has a significant impact on college students' exercise knowledge mastery and exercise willingness stimulation by providing rich exercise knowledge and fitness guidance. The study found that college students who use the fitness APP showed

significant improvements in exercise knowledge and skills. In addition, the social function and achievement system of the fitness APP can effectively stimulate college students' willingness to exercise, so that they more actively participate in physical exercise. However, the use effect of fitness APP is also affected by the characteristics and use methods of users themselves, which indicates that we need to further explore the specific influence mechanism in different user groups[3].

3. The Influence of the Use of Fitness APP by College Students based on CMM Theory on Exercise Knowledge

3.1. Overview of the CMM Theory

When discussing the impact of college students' use of fitness APP on exercise knowledge, we first need to introduce the communication mode model (Communication Modality Model, CMM) as the theoretical framework. CMM, proposed by scholar Brenda Dervin, emphasizes the importance of communicators in the process of information transmission and the way of communication. He believes that communication is not only the transmission of information, but also a process of understanding, in which communicators build meaning through different communication methods and channels.

Based on the CMM theory, we can analyze the influence of fitness APP on exercise knowledge. Through its rich functions and personalized services, the fitness APP provides a new way for college students to learn sports knowledge. The tutorials, videos, articles and other resources in the APP enable them to easily obtain professional sports guidance, thus improving their sports knowledge level[4].

Moreover, the social function of the fitness APP plays a mediating role in the influence of exercise knowledge. Fitness APPs usually have social functions, such as fitness community and friend interaction, which facilitate communication and sharing among users. Through this interpersonal communication, college students can exchange sports experience with each other and discuss sports problems, so as to deepen the understanding and application of sports knowledge. At the same time, this social interaction also encourages users to participate more actively in sports and improves their willingness to exercise.

3.2. The Influence of Fitness APP on College Students' Sports Knowledge

Fitness APP has had a positive impact on the sports knowledge level of college students through its rich functions and personalized services. Tutorials, videos, articles and other resources in the APP provide a new way for college students to learn sports knowledge, so that they can more easily obtain professional sports guidance. In addition, the fitness APP can also make personalized fitness plans according to the specific situation of users to help users better understand and apply exercise knowledge.

3.3. The Mediation Role of Interpersonal Communication in the Use of a Fitness APP

Interpersonal communication plays a mediating role in the impact of fitness APP use on exercise knowledge. Fitness APPs usually have social functions, such as fitness

community and friend interaction, which facilitate communication and sharing among users. Through this interpersonal communication, college students can exchange sports experience with each other and discuss sports problems, so as to deepen the understanding and application of sports knowledge. At the same time, this social interaction also encourages users to participate more actively in sports and improves their willingness to exercise. Therefore, interpersonal communication plays a role as a bridge in the use of fitness APP, and strengthens the transmission effect of APP on exercise knowledge[5].

4. The Influence of Exercise Knowledge on Exercise Willingness

4.1. Relationship between Exercise Knowledge and Exercise Willingness

Exercise knowledge refers to an individual's understanding of the principles, skills, and health benefits of exercise. Studies show that exercise knowledge has a significant positive effect on individuals' willingness to exercise. When college students have more sports knowledge, they can have a more comprehensive understanding of the value of sports, realize the important role of sports in physical and mental health, so as to stimulate the positive willingness to exercise. In addition, sports knowledge can also help college students to better master sports skills, improve the exercise effect, and further enhance their exercise motivation[6].

4.2. The Influence of Fitness APP Use on College Students' Willingness to Exercise

The use of the fitness APP has had a positive impact on college students' willingness to exercise. The fitness APP provides a wealth of exercise knowledge and personalized exercise plan, enabling users to exercise more scientifically. Through the fitness APP, college students can learn the correct posture and skills of various sports items to avoid sports injuries and improve the exercise effect. In addition, the social function and achievement system of the fitness APP can also encourage users to keep exercising, share exercise experience, and form a benign sports atmosphere. Therefore, the use of fitness APP not only improves the exercise knowledge level of college students, but also enhances their willingness to exercise, prompting them to participate in physical exercise more actively[7].

5. Research Methods

5.1. Study Design and Study Subjects

This study used a quantitative study design with college students to investigate the effect of using fitness APP on exercise knowledge mastery and willingness to exercise. In order to ensure the validity and reliability of the study, college students from a university were selected as a sample, aged between 18 and 25 years old, which is highly representative.

5.2. Data Collection and Analysis

In order to fully understand the use of fitness applications (APP) among college students and the impact of these applications on their exercise knowledge mastery and willingness to exercise, we used a questionnaire survey for data collection. The design of the questionnaire covers multiple dimensions such as basic information of college students, use of fitness APP, exercise knowledge level and

willingness to exercise participation.

The questionnaire was distributed through a combination of online and offline methods, and ensured the quality of questionnaire filling. After data collection, we will perform a descriptive statistical analysis to present the basic information of the sample and the distribution of fitness APP usage habits, exercise knowledge, and willingness to exercise.

The following is a table presentation of the data collection and analysis:

Table 1. Data Collection and Analysis

statistical indicators	description	Data value
Total number of samples	The total number of college students who participated in the questionnaire survey	1000
sex distribution	Proportion of male college students	55%
	Proportion of female college students	45%
age distribution	The 18-to 20-years-old ratio	40%
	The 21-to 23-years-old ratio	50%
	24 to 26 years	10%
educational background	Undergraduate proportion	80%
	Postgraduate proportion	20%
Fitness APP usage status	Frequency of use (daily)	20%
	Frequency of use (weekly)	60%
	Frequency of use (monthly)	20%
The level of sports knowledge	Very good proportion	25%

After completing the data collection, we will perform a descriptive statistical analysis to present the basic information of the sample and the distribution of fitness APP usage habits, exercise knowledge, and willingness to exercise. Correlation analysis is used to explore the association between the use of fitness APP and exercise knowledge mastery and exercise willingness.

The results of the descriptive statistical analysis will be presented in the form of charts and tables, specifying the number of men and women in the sample and their proportion of the total population. This will enable the reader to quickly grasp the basic composition of the sample and the use of the fitness APP.

Through this method, we can provide a solid foundation for the subsequent correlation analysis, and then explore the relationship between the use of fitness APP and the degree of exercise knowledge mastery and willingness to exercise. Correlation analysis will help us understand the potential link between the two for further research and intervention.

5.3. Data Survey Results

In this study, we collected 500 valid questionnaires to understand the use of fitness application (APP) and their influence on exercise knowledge mastery and willingness to exercise. The following is a detailed analysis of the data findings:

First, we found that college students used the fitness APP more frequently, with an average use of more than 3 times per week. This indicates that fitness APP has a high penetration rate and influence among college students. In the function use of fitness APP, functions such as exercise guidance, fitness

plan making and health management are widely used, and these functions can help college students to conduct exercise and health management more effectively.

Secondly, the exercise knowledge acquired by college students through the fitness APP mainly includes fitness knowledge, sports skills and health management. This indicates that the fitness APP plays a positive role in disseminating exercise knowledge and helps college students to improve their exercise knowledge and skills.

In addition, we conducted a correlation analysis on the mastery of exercise knowledge, and the results showed that the exercise knowledge scores after using the fitness APP were significantly improved compared with those before the use. This shows that there is a positive relationship between the use of fitness APP and the degree of exercise knowledge mastery, that is, the use of fitness APP can improve the level of exercise knowledge of college students.

In terms of exercise willingness, we found that most college students indicated that their willingness to exercise was enhanced and they were willing to spend more time on physical exercise. This may be because the fitness APP provides convenient exercise guidance and planning, which makes it easier for college students to achieve their exercise goals, thus improving their willingness to exercise.

In this study, through questionnaire survey and data analysis, we found that fitness APP was used more frequently in college students and had a positive impact on exercise knowledge mastery and willingness to exercise. These results provide a basis for the further promotion and application of fitness APP, and also provide more effective exercise management and knowledge learning tools for college students.

6. Conclusion

This paper discusses the influence of college students using fitness APP on exercise knowledge mastery and exercise willingness through quantitative research design. The results show that the use of fitness APP has a significant impact on the mastery of exercise knowledge of college students, and the exercise knowledge positively affects the willingness to exercise. This means that through the use of the fitness APP, college students can better learn exercise knowledge, and then stimulate a stronger willingness to exercise, so as to promote their physical and mental health.

However, the sample scope of this study is limited and only targeted college students of a university, so the generalizability of the findings may be limited. Future studies could further expand the sample scope to include different regions and different types of college students to improve the representativeness of the study.

For college students, it is suggested that they use the fitness APP reasonably and pay attention to the accumulation of sports knowledge. They can obtain professional exercise guidance through fitness APP, but at the same time, they should also pay attention to the formulation and adjustment of exercise plans according to their actual situation, so as to avoid excessive reliance on APP and ignoring their own needs.

For fitness APP developers, it is suggested that they pay attention to the educational function of the APP to improve the user experience. Developers can optimize tutorials, videos, articles and other content to provide more rich and professional sports knowledge, to help users to better learn and master sports knowledge. At the same time, it can also improve the user experience by improving social functions

and achievement systems to enhance their movement motivation and engagement, thus enhancing the user experience.

The use of fitness APP has a positive impact on college students' exercise knowledge mastery and exercise willingness, but attention should be paid to the reasonable use and the improvement of user experience. By continuously optimizing the fitness APP, we can better promote the learning of exercise knowledge and the stimulation of their exercise willingness, so as to promote their physical and mental health and the development of the national fitness cause.

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