

Research on the Influence of Mobile Sports APP on College Students' Sports Behavior

Xiangbin Gao

Linyi University, Linyi, 276000, China

Abstract

To study the impact of intelligent phone sports apps on the physical exercise behavior of college students, this paper uses questionnaire survey and interview methods first to summarize the functions of mobile phone sports apps and the role of users, and then combine the questionnaire survey and experts. The results of the interviews analyzed the use of mobile sports apps, sports enthusiasm, self-efficacy, sports input and output, and the impact of mobile sports apps on college students' physical exercise behavior, and the following conclusions were drawn: (1) At present, the main characteristics of college students' physical exercise are: the insufficient amount of exercise; running and walking are the main exercise methods; the primary purpose of college students' physical exercise is to lose weight and keep fit; the main factor in physical activity. (2) Most college students believe that the mobile phone sports APP influences their physical exercise behavior. The mobile sports APP has a specific positive impact on the attitude of college students toward physical exercise, stimulates interest in physical exercise, learns physical exercise methods, achieves physical exercise goals, and develops physical exercise habits.

Keywords

Sports APP; College students; Sports behavior.

1. Introduction

With the advancement of smartphone technology and the popularization of mobile networks, smartphone APPs have also developed rapidly as an essential tool to expand the functions of mobile phones. Not only a large number of new APPs have appeared, but their functions have also been continuously improved. The promotion of policies and market demand have promoted the development of mobile sports apps in China. The latest emerging category of apps aims to help users exercise and fitness. As a large user group of smartphones, College students are familiar with network usage and mobile phone operations. They are good at applying various functions of mobile APPs and discovering different types of new APPs. As a type of mobile APP, mobile sports APP has also received extensive attention and Application by college students[1].

2. Mobile Phone Sports APP Background

APP is the abbreviation of the word Application, that is, Application, so mobile APP is also called mobile Application. With China's vigorous promotion of national fitness and the enhancement of residents' health awareness, people are paying more and more attention to their physical health and body image. They are coupled with the development of China's mobile Internet technology and IT industry, a group of particular The APP of exercise service - mobile sports APP[2].

The mobile sports APP specifically provides users with exercise data recording, exercise method guidance, and exercise results sharing[3]. Mobile sports APPs can guide people to

perform exercises such as non-equipment strength exercises or yoga at home without having to go to the gym and without having to ask a fitness instructor for guidance; mobile sports APPs can also help users formulate running or cycling plans and urge users to complete the plan, in order to achieve the purpose of fitness and weight loss. As shown in Figure 1.

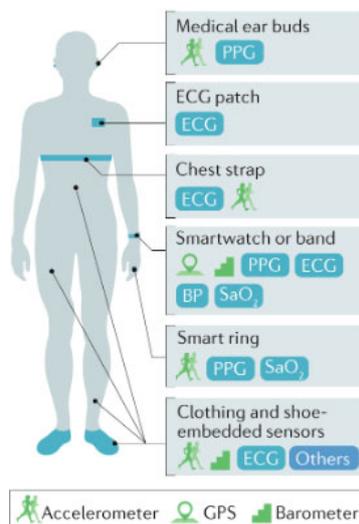


Figure 1. Mobile sports APP specially provides sports data records for users

3. Problems Faced By the Current University Student Movement

3.1. Insufficient Sports Venues and Facilities

College students have a deep understanding of the lack of venues and facilities. For example, students who love to play basketball will run to grab the venue after class. Otherwise, the venue is likely to be occupied by other teams[4]. At the same time, physical education teachers are not proficient in all sports. It is difficult for them to have enough ability to assume the role of coaches that do not belong to their business scope. If students are willing to practice other sports, it isn't easy to get practical guidance[5].

3.2. Exercise Cannot Be Sustained

Many students tend to be enthusiastic about physical exercise for three minutes. If they cannot see the desired results after training for some time, they will choose to give up and start a new exercise.

3.3. The Pressure on Sports Is Huge

The competition in modern society is very fierce. Many students are very crisis-conscious and worry about their employment, so they devote most of their energy to preparing for various exams and strive to get more chips when employed. This precautionary approach is good, but they often neglect physical health because of learning. Compared with high school, the current academic burden of the current group of college students is lighter, and the university is different from primary and secondary schools. Students' supervision and management are relatively relaxed, and the free time of college students is relatively increased.

4. Specific Application Methods of Mobile Phone Sports Apps in Sports Teaching

4.1. Incorporate Mobile Sports Apps Into Sports Classroom Teaching

Doing warm-up exercises is a necessary part of sports teaching. The traditional running circle warm-up will cause students to resist, and the mobile sports APP is applied to the preparation

part. Students can follow the music rhythm to move dynamically. After the students have warmed up and brushed out the corresponding The number of steps can effectively improve the enthusiasm and enthusiasm and lay the foundation for the smooth development of sports teaching.

4.2. Mobile Sports APP to Complete After-class Physical Exercise

After the sports classroom teaching, students also need extra-curricular exercise to improve their physical fitness. Teachers can publish homework on mobile sports APPs; students can receive homework online and report the exercise data through the APP after completion. Teachers with problems can provide online guidance, and students can formulate their own exercise plans according to their own physical fitness and exercise requirements, upload and share their own exercise data, and urge and encourage students to adhere to physical exercise.

4.3. Incorporate Mobile Sports Apps Into the Classroom Assessment and Evaluation System

Sports assessment and evaluation should adopt the principle of individual treatment. The traditional sports assessment and evaluation is only an assessment of skill mastery and sports performance and does not incorporate the physical changes of students into the sports assessment and evaluation system. Mobile sports APPs are included in the sports assessment indicators to supplement the traditional evaluation system. The mobile phone sports APP records the students' sports in a semester, and teachers can analyze the students' sports performance and effects from the beginning of the semester to the end of the semester so that teachers can evaluate students more objectively, simply, and fairly. Bonus points and rewards are given to certain standards, which can motivate and improve students' enthusiasm for sports. As shown in Figure 2.

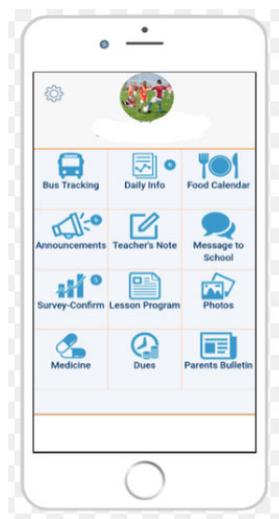


Figure 2. The specific application of mobile phone sports APP in sports teaching

5. Questionnaire Method

5.1. Design of the Questionnaire

In order to obtain the relevant results on college students' use of mobile sports apps and their impact on physical exercise, a questionnaire was designed. By consulting the relevant literature on the questionnaire survey method of CNKI, first of all, I have a relatively scientific understanding of the questionnaire survey method and have a certain understanding of the questionnaire survey method and the design of the questionnaire. Questions such as incomplete questionnaire answer logic, non-exclusive questionnaire answers, skewed questionnaire answers, and overly simple statistical methods have been reasonably avoided to

avoid the impact of questionnaire design defects on the results of the questionnaire. The purpose of this study is to explore the impact of mobile sports apps on the physical exercise behavior of college students. Therefore, the questionnaire involved basic information related to physical exercises, such as exercise time, exercise frequency, exercise mode, and the use of mobile sports APPs by college students. According to the content of the survey, the content of the questionnaire is divided into four dimensions: the basic situation of mobile phone sports APP use, the basic situation of college students' physical exercise; college students' exercise through mobile phones APP for physical exercise; basic information. Through this questionnaire, we can get a complete conclusion about the usage and impact of college students' mobile sports apps. As shown in Figure 3.

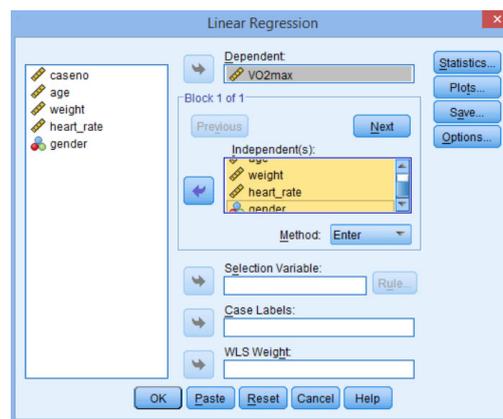


Figure 3. SPSS analysis of mobile phone sports APP questionnaire survey

5.2. Issuance and Recovery of Questionnaires

This study mainly collected data by means of questionnaires. The questionnaire was filled out through the Internet and uploaded to the website after the design of the questionnaire was completed. The sampling method of random sampling was used to conduct the questionnaire survey in places with high traffic, such as sports fields or restaurants in colleges and universities. Before the questionnaire is distributed, the subjects are first asked to determine whether they have installed and used the mobile sports APP on their mobile phones. It fills out the questionnaire via mobile phone. The questionnaire data filled in through the network can be directly uploaded to the website through the network, and then the questionnaire data can be exported through the computer, eliminating the trouble of manual data entry and possible errors. In this questionnaire survey, 110 questionnaires were distributed to each school. A total of 660 questionnaires were distributed, and 660 were recovered. The recovery rate was 100%. Among them, there were 648 valid questionnaires, and the effective rate of the questionnaire was 98.18%.

5.3. Questionnaire Analysis Method

Quantitative analysis: Use SPSS23.0 software to carry out descriptive statistical analysis on quantitative data, through single analysis and cross-analysis of survey data, to understand the current situation of college students' mobile sports APP use, physical exercise status, and the impact of mobile sports APP on college students. The effect of physical exercise behavior.

6. Results and Analysis

In this study, questionnaires were distributed to college students through the questionnaire survey method, and the questionnaire data were analyzed after the questionnaires were recovered. Combined with the data, the use and impact of mobile sports APPs on college students were analyzed.

6.1. Basic Analysis of the Use of Mobile Sports Apps By College Students

A total of 1,283 college students were interviewed in this questionnaire, including 608 males and 675 females, with a basically balanced gender ratio. After screening out 623 students who had never used the mobile sports APP and 12 invalid questionnaires, the actual number of respondents who completed the survey was 648, including 287 males and 361 females.

6.1.1. Analysis of the Frequency of Use of Mobile Sports APP By College Students

It can be seen from the displayed data that among college students, 43.34% of the respondents are using mobile sports APPs, and 7.17% of them have used mobile sports APPs before but not now. The utilization rate is 50.51%. It can be seen that the usage rate of mobile sports apps among college students accounts for nearly half. According to the HealthMobile report released by the US Pre internet website, about 19% of smartphone users in the United States have installed at least one sports and health APP on their mobile phones. The analysis data released by the Sutu Research Institute shows that in 2013, the number of mobile phone sports among Android platform users. The install rate of the APP is about 34.8%. From this, it can be seen that the usage rate of mobile sports APPs among college students is higher than the overall utilization rate; that is, mobile sports APPs are more widely used by college students. As shown in Figure 4.

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure
1 Q2	Numeric	11	0		{1, full prof...	None	6	Right	Nominal
2 Q5	Numeric	11	0		{1, more th...	None	6	Right	Ordinal
3 Q10	Numeric	11	0		None	None	6	Right	Ordinal
4 Q26	Numeric	11	0		{1, I use te...	None	6	Right	Nominal
5 Q31A1	Numeric	11	0		None	None	6	Right	Ordinal
6 Q31A2	Numeric	11	0		None	None	6	Right	Ordinal
7 Q31A3	Numeric	11	0		None	None	6	Right	Ordinal
8 Q31A4	Numeric	11	0		None	None	6	Right	Ordinal
9 Q31A5	Numeric	11	0		None	None	6	Right	Ordinal
10 Q31A6	Numeric	11	0		None	None	6	Right	Ordinal
11 Q31A7	Numeric	11	0		None	None	6	Right	Ordinal
12 Q31A8	Numeric	11	0		None	None	6	Right	Ordinal
13 Q31A9	Numeric	11	0		None	None	6	Right	Ordinal
14 Q31A10	Numeric	11	0		None	None	6	Right	Ordinal
15 Q31A11	Numeric	11	0		None	None	6	Right	Ordinal
16 Q31A12	Numeric	11	0		None	None	6	Right	Ordinal
17 Q31B1	Numeric	11	0		None	None	6	Right	Ordinal
18 Q31B2	Numeric	11	0		None	None	6	Right	Ordinal
19 Q31B3	Numeric	11	0		None	None	6	Right	Ordinal
20 Q31B4	Numeric	11	0		None	None	6	Right	Ordinal

Figure 4. Questionnaire survey SPSS data analysis results

6.1.2. Analysis of the Types and Quantities of Mobile Sports Apps Used By College Students

It can be seen from the data in the figure that 58.94% of college students who use mobile sports APPs use running APPs, 38.69% use fitness APPs, and the proportion of college students who use venue reservations APPs only accounts for 2.37%. It can be seen that running apps are the most widely used among college students, followed by fitness apps. Venue reservation APPs have the lowest proportion of users among college students. This is mainly because college students usually do physical exercise in the school's sports venues, so they generally do not need to make venue reservations. In addition, through this survey, it was found that 22.69% of college students installed two or more types of mobile sports apps at the same time, which reflected that some college students did not only do a certain kind of physical exercise. The means and purpose of exercise are installed using different kinds of sports apps.

6.2. Analysis of the Characteristics of College Students' Physical Exercise

It can be seen from the data that 35.78% of the respondents liked and very much liked physical exercise, and 64.22% of the college students liked physical exercise. College students' liking for physical exercise is related to the frequency and duration of their physical exercise, as well as their active degree of physical exercise. From the survey results, it can be seen that among the college students who use the mobile sports APP, the degree of liking for physical exercise is low,

and only about one-third of the students like physical exercise. The main reasons for this situation are: college students have different motivations for physical exercise, and some students do physical exercise just to complete school courses and get good grades, not because of their love for physical exercise; Freedom and full autonomy to choose what extracurricular activities to do. Extracurricular activities such as reading, surfing the Internet, playing games, or doing part-time jobs will affect the physical exercise of college students. The lack of technology leads to the lack of confidence of college students in physical exercise, which in turn affects their love for physical exercise.

7. Conclusions are Drawn From Analyzing the Data

7.1. The Mobile Phone Sports App Has A Significant Role in Promoting the Improvement of the Endurance Quality of College Students.

The experimental results show that choosing a suitable mobile sports APP and endurance training under APP monitoring can significantly promote the improvement of the endurance of college students, and it is difficult to cheat in such training because the trajectory map of any two subjects and The state of the phone at the time of the screenshot cannot be exactly the same. Due to the automatic ranking of the APP and the score ranking given by the teacher on a regular basis every week, the subjects are also stimulated to a certain extent, hoping that they will be ranked higher each time. At the same time, the APP records also allow the subjects to clearly know their scores. Is it progressing or regressing? The running training under the monitoring of the mobile phone APP is very significant for the improvement of performance.

7.2. Endurance Training Under the Monitoring of Mobile Phone Sports Apps Is Helpful for the Cultivation of College Students in Ordinary Colleges and Universities

Physical exercise habit is a stable conditioned reflex gradually formed by repeated practice and repeated stimulation during the exercise process. Eight hundred meters is the sport that college students are most afraid of. Before they develop the habit of exercise, it is difficult for college students to insist on regular exercise every week. If there are no relevant monitoring measures, the task assigned by the teacher, and the students can complete the task truthfully, it is also difficult, and there is no supervision. It cannot prevent students from cheating. If the teacher supervises and the time is limited, it is far from enough for ordinary college students to cultivate a habit of once a week for a physical education class. Developing the habit of exercise is the key to cultivating students' lifelong sports. Lifelong sports refer to a person's lifelong physical exercise and physical education. To make sports an indispensable part of life, lifelong sports awareness is formed through repeated practice. Therefore, in the experiment, the running was repeated every week, and the constant stimulation made the subjects form a habit of regular running, warm-up and stretching before and after each exercise, and they could feel the application of sports knowledge and become familiar with it from practice. The physical and psychological changes obtained from running also gradually made the subjects realize the importance of lifelong sports, which helped to establish the awareness of lifelong sports.

7.3. For Ordinary College Students in A Physical Education Class

The feasibility of using a mobile phone APP to monitor the teaching method of endurance training after class, The National Student Physical Health Center collects students' physical health test data every year. Since 2000, the physical quality of college students has been declining year by year. In 2013, the General Administration of Sports conducted a comprehensive survey on the physical fitness of college students in colleges and universities across the country. In 2014, the physical fitness evaluation standards were re-established, and various indicators of the test were adjusted. Compared with the previous qualification

standards, all indicators were greatly improved. Reduce. So how can we use the functions of smartphones and the Internet to improve the physical quality of college students? At the same time, we can encourage college students to cultivate good habits of physical exercise and establish an awareness of lifelong sports, which is an urgent problem for sports workers to solve. The rise of this provides us with such an effective means.

8. Conclusion

All in all, with the rapid development of the current social economy, the rapid progress, and popular application of science and technology, a variety of mobile APP technologies have been fully applied in the field of education, affecting the teaching method and teaching efficiency, and at the same time promoting the concept of education and the times. Progressively transform. At present, the full application of a mobile APP to assist teaching in the teaching process of orienteering courses in colleges and universities can effectively make up for the shortcomings of the traditional teaching model, promote the improvement of teaching management efficiency, reduce the teaching burden for teachers, and effectively maintain and ensure that students participate in the practice process. Security.

References

- [1] Jia Xueliang, Diao Changguang. Research on the application of mobile sports apps in the teaching of public sports courses in ordinary colleges and universities. *Contemporary Sports Science and Technology*, Vol. 12 (2020) No. 06, p.132-134.
- [2] Kuang Zhichao. An overview of the application of mobile apps in orienteering teaching in colleges and universities. *Innovation Research on Ice and Snow Sports*, Vol. 16 (2021) No. 08, p.65-68.
- [3] Yan Yingchun, Li Chaofu. Research on the application of sports APP in college orienteering courses, Vol. 09 (2019) No. 10, p.102-104.
- [4] Lan Heng, Wei Jinliang. A brief analysis of the impact of the sports world campus mobile APP on the Taijiquan course evaluation system. *Sports Excellence*, Vol. 21 (2020) No. 12, p.86-88.
- [5] Jiang Shan, Chen Shouyun, Chen Ruohan. Research on sports mobile apps assisting police physical education. *Sports Fashion*, Vol. 24 (2021) No. 14, p.124-126.