

The Influence of Exercise Motivation on Sports Participation of College Students in China

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Abstract: Exercise motivation is a critical factor in understanding the sports participation of college students, particularly in China, where cultural, educational, and social influences play significant roles. Previous studies have examined the relationships between motivation, physical activity, and sports engagement, highlighting the importance of intrinsic and extrinsic motivators. Theories such as the Self-Determination Theory emphasize the role of autonomy, competence, and relatedness in fostering a student's inclination towards consistent sports participation, while other literature discuss how motivation shapes learning attitudes and involvement in sports activities, stressing the impact of educational models on behavior. This study aims to build upon these theoretical frameworks and findings-based arguments to explore how specific motivational factors influence the sports participation of college students in China. A mixed-methods approach was used, combining quantitative surveys and qualitative interviews to gather data from a sample of 500 college students across one Chinese university. The survey measured students' motivations for exercise, categorized as intrinsic or extrinsic, using a modified Exercise Motivation Scale. Semi-structured interviews were also conducted to gather in-depth insights into personal experiences and barriers to participation. Results indicated that intrinsic motivations, particularly related to health and personal enjoyment, were the strongest predictors of consistent sports participation among college students. Extrinsic motivations, though present, played a lesser role in long-term engagement. Students with higher intrinsic motivation levels participated in more frequent and varied sports activities. The study concluded that fostering intrinsic motivations, such as a focus on personal health and enjoyment, could lead to higher sports participation rates among college students. Hence, educational initiatives emphasizing these factors might improve long-term exercise habits and contribute to overall well-being. With these, a program was proposed to further strengthen and develop such programs.

Keywords: Exercise Motivation; Sports Participation; College Students; Physical Activity; Motivation Factors.

1. Introduction

In recent years, the issue of obesity among college students has garnered significant attention, largely attributed to unhealthy dietary habits and inadequate physical exercise. Gong (2023) emphasizes the crucial role of regular participation in moderate-intensity physical activities for maintaining overall physical health. Engaging in such activities not only helps prevent a spectrum of diseases including vascular diseases, diabetes, cancer, and hypertension but also contributes to managing conditions like obesity, osteoporosis, and depression. Thus, physical exercise is not merely a leisure activity but a fundamental component of a healthy lifestyle that supports well-being and longevity.

Jiang (2023) underscores that a substantial portion of adolescent obesity stems from sedentary behaviors and insufficient physical activity. With the pervasive influence of the internet and smartphones, many college students spend considerable time daily on activities such as online gaming and watching videos, further exacerbating sedentary lifestyles. Recognizing the broader societal implications, governments worldwide, including the Canadian government, have issued guidelines advocating for adults to engage in at least 60 minutes of moderate-intensity physical exercise daily, reflecting a growing consensus on the pivotal role of public health in societal development. Despite the established benefits of physical exercise, a significant proportion of college students continue to demonstrate low levels of participation. Feng (2020) identifies several key factors contributing to this trend, including lack of motivation,

academic and employment pressures, insufficient time and suitable facilities for exercise, and inadequate appreciation of the benefits of physical activity. Among these factors, motivation emerges as a critical determinant influencing whether students adopt and maintain regular exercise routines. Zhou (2020) further highlights that the level of motivation directly shapes exercise behaviors, underscoring the need for a deeper quantitative exploration to elucidate the intricate relationship between motivation and exercise habits among college students.

Current research primarily offers descriptive insights into the qualitative aspects of motivation and exercise behavior among college students. However, there remains a gap in the literature concerning detailed quantitative analyses that could provide nuanced insights into how different motivational factors influence exercise behaviors. Building on this foundation, the present study aims to advance our understanding by conducting a quantitative investigation into the specific dynamics between sports exercise motivation and actual exercise behaviors among college students. By delving deeper into this relationship, the study seeks to uncover actionable insights that can inform targeted interventions and strategies to promote healthier lifestyles and enhance overall well-being among college populations. As a physical education teacher at a university in China, the researcher's decision to conduct this study on college students' exercise motivation and behaviors is motivated by several key factors. Firstly, the researcher likely observes firsthand the prevalent issue of inadequate physical activity among students despite the known benefits of regular exercise for physical and mental

health. With rising concerns about sedentary lifestyles and obesity among college students, there is a pressing need to understand why some students engage in regular physical exercise while others do not.

The researcher's professional expertise and daily interactions with students likely provide insights into common barriers and motivations related to physical activity participation. This practical experience may have highlighted recurring themes such as academic pressures, lack of motivation, limited access to suitable exercise facilities, and cultural attitudes towards exercise. Recognizing these factors as potential impediments to students' health and well-being, the researcher seeks to address them systematically through empirical research. Moreover, as an educator committed to promoting holistic student development, the researcher likely recognizes the role of physical activity in enhancing academic performance, reducing stress levels, and fostering social integration among students. By conducting this study, the researcher aims to contribute empirical evidence that can inform evidence-based strategies and interventions within the university setting. Understanding the specific motivational drivers and barriers to exercise can guide the development of targeted programs and policies that promote a more active campus community. Additionally, the researcher may be motivated by a desire to contribute to the broader field of physical education and health promotion. Advancing knowledge in this area through rigorous research, the researcher not only enhances their own professional expertise but also contributes to the growing body of literature on exercise psychology and behavioral science. This scholarly endeavor aligns with the researcher's commitment to continuous improvement and innovation in pedagogical approaches and student engagement strategies.

The researcher's decision to conduct this study may be influenced by a sense of social responsibility and advocacy for public health. Given the global emphasis on preventive health measures and the role of physical activity in disease prevention, the researcher may see this study as a way to advocate for policies and initiatives that prioritize physical activity promotion within educational institutions. By advocating for a healthier campus environment, the researcher seeks to empower students to adopt lifelong habits of physical activity that contribute to their overall health and well-being. The researcher's decision to conduct this study on college students' exercise motivation and behaviors is driven by a combination of practical experience, professional commitment to student development, scholarly aspirations, and advocacy for public health. Addressing gaps in current knowledge and understanding, the researcher aims to make meaningful contributions to both academic discourse and practical interventions aimed at promoting physical activity among college students in China and beyond. In the current locale of the university in China where the researcher conducts their study on college students' exercise behaviors and motivations, several key factors shape the context of physical activity participation among students. There is a growing awareness of the importance of physical health and well-being, spurred by increasing access to health information and global health trends. With rising concerns about sedentary lifestyles and obesity, both among the general population and specifically among young adults, there is a heightened emphasis on the role of regular exercise in maintaining overall health.

However, despite this awareness, many college students in

China face significant challenges when it comes to engaging in regular physical activity. Academic pressures are often cited as a primary barrier, with demanding study schedules leaving limited time for leisure activities, including exercise. This pressure is exacerbated by the competitive nature of academic achievement in China, where students often prioritize academic success over other pursuits, including physical fitness. Moreover, the availability and accessibility of exercise facilities on university campuses vary widely across China. While some universities boast state-of-the-art gymnasiums and sports complexes, others may have limited or outdated facilities. This disparity in infrastructure can impact students' opportunities and motivations to participate in physical activities, depending on their access to suitable venues and equipment. Cultural attitudes towards exercise also play a significant role in shaping students' behaviors. In Chinese culture, the emphasis on academic excellence and the pursuit of intellectual pursuits may sometimes overshadow the importance of physical health. As a result, students may perceive exercise as secondary to their academic responsibilities, leading to lower levels of motivation and participation in physical activities. Furthermore, the pervasive influence of technology and digital media presents a unique challenge to promoting physical activity among college students in China. The widespread use of smartphones and online entertainment platforms has contributed to increased sedentary behaviors, with students spending significant amounts of time on screens rather than engaging in physical activities.

In response to these challenges, there is a growing recognition among educators, health professionals, and policymakers of the need to promote a more active lifestyle among college students. Efforts are underway to integrate physical activity promotion into the university curriculum, enhance campus facilities, and create supportive environments that encourage regular exercise. These initiatives aim to improve students' physical health and enhance their overall well-being, academic performance, and social connectedness within the university community. While the locale presents challenges to promoting physical activity among college students in China, there is also a growing momentum towards fostering a culture of health and wellness on university campuses. By understanding the current situation and addressing these challenges systematically, educators and stakeholders can work towards creating environments that support and encourage students to adopt and maintain healthy lifestyle habits, including regular physical exercise. Despite extensive research on the motivations behind college students' participation in physical exercise, there remains a significant gap in understanding the nuanced quantitative relationships between motivation and actual exercise behaviors. While existing studies have identified various motivational factors influencing exercise habits qualitatively, such as intrinsic motivation, extrinsic rewards, and social influences, few have rigorously examined these factors quantitatively within the college student population. This gap hinders a comprehensive understanding of how specific motivational drivers translate into consistent exercise behaviors over time.

Moreover, existing research often relies on self-reported measures or qualitative assessments, which may not fully capture the complexity and variability of individuals' exercise motivations and behaviors. Quantitative approaches, such as robust statistical analyses and measurement tools grounded in

theoretical frameworks like Self-Determination Theory (SDT), are needed to provide more precise and reliable insights. By employing such methods, researchers can systematically explore the strength and directionality of relationships between motivational factors (e.g., autonomy, competence, relatedness) and exercise behaviors among college students. Furthermore, previous studies have predominantly focused on broad motivational categories without delving into the specific motivational profiles that may exist within the college student population. Individual differences in motivation, such as varying levels of intrinsic versus extrinsic motivations or different motivational orientations (e.g., task-oriented versus ego-oriented motivations), are critical to understanding why some students maintain regular exercise routines while others do not. Addressing these nuances requires a nuanced approach that integrates quantitative data analysis with qualitative insights to uncover patterns and variations in motivational dynamics. Additionally, the temporal aspect of motivation and its impact on sustained exercise behaviors remains underexplored. While initial motivation may prompt students to initiate exercise routines, maintaining these behaviors over time often proves challenging. Longitudinal studies that track changes in motivation and exercise behaviors over extended periods can provide invaluable insights into the factors that facilitate or hinder the continuity of physical activity among college students. Understanding these temporal dynamics is essential for developing targeted interventions that support sustained engagement in physical exercise throughout college and beyond. The context-specific factors influencing exercise motivation and behavior among college students, such as campus environment, social norms, and access to facilities, warrant further investigation. These contextual variables can significantly shape students' perceptions of autonomy, competence, and relatedness in relation to physical activity. By examining how these factors interact with motivational drivers, researchers can identify leverage points for promoting a supportive environment that fosters a culture of physical activity on college campuses.

While existing research has laid a foundation by highlighting the importance of motivation in shaping exercise behaviors among college students, filling these gaps through rigorous quantitative analysis and exploration of contextual influences is essential. Addressing these research gaps not only enhances our theoretical understanding of motivation within the context of physical exercise but also informs practical strategies and interventions aimed at promoting healthier lifestyles among college populations.

2. Statement of the Problem

The aim of this study is to determine the relationship between exercise motivation and sports participation among college students, in order to propose a plan to enhance their enthusiasm for sports participation. Specifically, research should seek answers to the following questions:

1. What is the profile of the student respondents in terms of:
 - 1.1 Sex
 - 1.2 Age
 - 1.3 Grade Level
2. What is the level of the student respondents' sports participation?
 - 2.1 Number of participating sports events
 - 2.2 Frequency of participation in exercise
 - 2.3 Participation in exercise intensity

- 2.4 Duration of participation in exercise
- 2.5 Persistence in physical exercise
3. Is there a significant difference in the assessment of the student respondents on their level of sports participation when their profile is taken as test factors?
 4. What is the assessment of the student respondents on their exercise motivations?
 - 3.1 Health motivation
 - 3.2 Fun Motivation
 - 3.3 Social motivation
 - 3.4 Appearance Motivation
 - 3.5 Ability Motivation
 - 3.6 Institutional Motivation
 - 3.7 Motivation for obedience
 5. Is there a significant difference in the assessment of the student respondents on their sports motivation when their profile is taken as test factors?
 6. Is there a significant relationship between the level of sports participation and the exercise motivation of student respondents?
 7. What development program may be developed based on the results of the study?

3. Research Design

This study adopted a quantitative descriptive, comparative and correlational research design. Descriptive research methods are used to explain the data collected from questionnaires and describe the interrelationships between the variables used in the study. Descriptive research is a quantitative study aimed at collecting measurable data for statistical analysis of population samples. The purpose of descriptive research is to describe and classify phenomena (Nassaji, 2017). The choice of this design is to meet the research goal of exploring the impact of exercise motivation on sports participation among college students. Comparative research methods involve comparing two or more groups, variables, conditions, or phenomena to determine similarities, differences, patterns, or relationships. This type of research design is commonly used in various fields, including social sciences, economics, education, and political science. Comparative research enables researchers to gain a deeper understanding of the relationships between variables and make informed comparisons, thereby deepening their understanding of the topic.

4. RESULTS, ANALYSIS AND DISCUSSION

1. Profile of the Student Respondents

Table 1. Profiles of the Student-Respondents

Variables	Indicators	Frequency	Percentage
Sex	Male	225	45.0
	Female	275	55.0
	Total	500	100.0
Age	20 years old and below	290	58.0
	21 years old and above	210	42.0
	Total	500	100.0
Grade Level	Freshmen	168	34.0
	Sophomore	126	25.0
	Junior	94	19.0
	Senior	112	22.0
	Total	500	100.0

In terms of the profiles of student-respondents, the above table revealed that majority of them were female. Also, their age revealed that the majority were 20 years old and below. Based on their grade level, many of the respondents were freshmen followed by the sophomore, senior and junior accordingly.

2. Level of the Student Respondents' Sports Participation

Table 2. Level of Student-Respondents' Sports Participation in terms of the Number of Participating Sports Events

Indicators	Mean	SD	Interpretation
I actively participate in multiple sports events throughout the academic year.	3.10	0.51	Agree
I regularly attend and participate in at least one sports event per semester.	3.20	0.52	Agree
I have participated in various sports events during my time in my school.	2.84	0.70	Agree
I try to attend sports events whenever I have the opportunity.	2.98	0.62	Agree
I enjoy participating in sports events as part of my overall college experience.	2.98	0.61	Agree
Sports events are an important aspect of my extracurricular activities.	3.12	0.51	Agree
I make an effort to participate in as many sports events as possible to stay active and engaged.	3.03	0.59	Agree
Composite	3.04	0.58	Agree

Scale: 4.00-3.51=Strongly Agree; 3.50-2.51=Agree; 2.50-1.51=Disagree; 1.50-1.00=Strongly Disagree

In terms of the number of participating sports events, the above table showed that the respondents overall agreed with the number of their participation. This implied a higher participation rate of the respondents in any sports events in their school. Remarkably, the respondents disclosed that they regularly participated in various sports events during their school time as evident by the top mean score of agreement saying that they did so for at least one sports event per semester based on the highest mean score. On the other hand, the lowest mean score was evident by participating in various sports events during my time in my school. The table presents an analysis of the level of student-respondents' sports participation, focusing on the number of sports events they engage in throughout their academic journey. The indicators reveal that, overall, students actively participate in multiple sports events, as reflected by the composite mean score of 3.04 (SD = 0.58), which falls under the "Agree" category. These findings contends with previous research indicating low levels of sports participation among students, often due to time constraints and competing academic priorities (Zhou et al., 2018; Yang & Li, 2017).

Examining the individual indicators, the lowest mean score is observed in the statement "I have participated in various

sports events during my time in my school" with a mean of 2.84 (SD = 0.70), indicating that, although still in the "Agree" category, this is where students show the least engagement. This could suggest that while students may have some history of participation, they do not do so as much simultaneously.

Conversely, the highest mean score is tied between "I regularly attend and participate in at least one sports event per semester" (M = 3.20, SD = 0.52) and "Sports events are an important aspect of my extracurricular activities" (M = 3.12, SD = 0.51). These indicators rank highest, reflecting a much presence of regular involvement in sports events, which may point to an existing connection between students and organized sports as part of their extracurricular engagement (Xiang, et al., 2023). The relatively high scores across all indicators suggest that sports participation is a significant component of the students' collegiate experience. This general trend might indicate good promotion of sports in the institution, although still not on the supposed optimal level (Mu, 2017; Zhang, 2023).

5. Conclusion

1.The student respondents exhibit diversity in sex, age, and grade level, indicating a broad representation across these demographic factors within the study.

2.The overall level of sports participation among student respondents is positive albeit not maximized yet, suggesting consistent but may not be optimal in sports and physical activities.

3.There are significant differences in sports participation levels based on sex, but age and grade level do not significantly influence sports participation among the respondents.

4.The exercise motivations of student respondents are high across various dimensions; hence, further encouragement can be seen to be easily implemented.

5.Sports motivation varies significantly by sex, indicating that male and female students are driven by different motivational factors, while age and grade level do not lead to significant differences in motivation.

6.A significant positive relationship exists between sports participation and exercise motivation, demonstrating that higher levels of motivation are associated with greater involvement in sports and physical activities.

6. Recommendations

Based on the findings and conclusions of this study, several recommendations are proposed to enhance student engagement in sports and physical activities to have students and the training itself attain optimal effectivity and development. These recommendations aim to address the factors that influence sports participation and exercise motivation, ensuring that educational institutions can create environments that promote a healthy and active lifestyle among students. Implementing these recommendations, schools and universities can foster a culture of physical fitness, improve overall student well-being, and support the development of lifelong healthy habits.

1.Universities should design sports programs that address the varied needs of students, with special attention to increasing participation among female students who may have different motivations than males.

2.Institutions should implement strategies to boost exercise motivation, particularly in areas where students show lower

interest, like health and ability. This could involve offering incentives, personalized fitness plans, and promoting the long-term benefits of physical activity.

3. Universities should enhance support for sports by improving facilities, offering diverse group activities, and ensuring policies that encourage regular physical exercise.

4. Develop fitness programs that match the motivations and needs of students, considering factors like sex, age, and grade level to ensure broad participation.

5. Since social motivation is moderate, universities should promote more group-based activities and team sports to improve social interaction and increase participation.

6. To strengthen the link between exercise motivation and sports participation, institutions should focus on motivating students through success stories, goal-setting, and regular encouragement to maintain or increase their activity levels.

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