

# Campus Sports Culture Affecting the Physical Exercise Behavior of Tertiary Students in a University in Guangdong China

Xiang Jun

Emilio Aguinaldo College, Manila, Philippines

Email: [jun.xiang.mnl\[at\]eac.edu.ph](mailto:jun.xiang.mnl[at]eac.edu.ph)

**Abstract:** *Unhealthy habits like prolonged sitting and late - night activities contribute to reduced physical exercise among college students, directly impacting their overall fitness. College sports culture, with its educational role, fosters sports awareness and enhances the quality of school sports teaching. Purpose: it will be an important attempt to improve the health of Zhaoqing University students by discussing the relationship between college sports culture and college students' physical exercise. Methodology: The Campus Sports Culture Scale and the Physical Activity Behavior Scale were used to survey 1,081 Chinese college students to analyze the basic situation of Chinese college students, their evaluations of campus sports culture and physical activity behavior, and the differences between them. Results: A predominant demographic of 19 - year - old female freshmen among college respondents. A significant sports culture exists on campus, while the assessment of sports coaching is consistent across sexes and ages, with variations by year level. Sophomore and senior students generally rate coaching higher than freshmen and juniors. Despite a prevalent sports culture, the degree of physical exercise behavior is less extensive. Surprisingly, the assessment of exercise behavior intensity remains consistent across demographics. Interestingly, an increased sports culture on campus does not necessarily correlate with a corresponding rise in the degree of physical exercise behavior among college students, emphasizing the complex relationship between sports culture and individual exercise habits in the college setting. In view of the above findings, recommendations are made accordingly.*

**Keywords:** Campus Sports Culture; Physical Activity Behavior; Chinese university student; difference

## 1. Introduction

Every institution is unique in its ways and means in improving their quality of education to serve their clients - the students. In the field of sports and physical education, every institution particularly of higher education has their own culture. They manifest through their desire to excel in a particular sports program. Their expertise in such sports program build their image which eventually will result to having their own branding that contributes to their culture as an institution.

Colleges and universities are important bases for talent cultivation, and the physical quality of the training objects is related to the long - term competition of the country. However, according to the survey data of Chinese government departments, the physical fitness of Chinese college students is declining year by year, among which endurance and explosive power decline the most (Guo, 2021).

Therefore, it is necessary to pay attention to the physique problems of college students and enhance their physical quality. In documents such as the 13th Five - Year Plan for the Development of The National Educational Career and the Notice of Opinions of the Ministry of Education and other Departments on Further Strengthening physical Education in Schools, the Chinese government has stressed the importance of exercise in and out of the classroom and put forward the overall goal of improving students' physical fitness. Different lifestyles have different impacts on human health (Wang & Zhang, 2021). Unhealthy lifestyle is one of the important factors leading to the reduction of physical

exercise among college students, such as bad habits such as sitting for a long time and staying up late (Xue, 2018). Lack of physical exercise is the direct reason for the decline of college students' physique (Yu et al., 2021).

College sports culture implies educational function, such as campus sports culture and sports atmosphere, not only has a significant impact on the cultivation of college students' sports awareness, but also plays a positive role in promoting the quality and level of school sports teaching (Xue, 2018). Therefore, it will be an important attempt to improve the health of Zhaoqing University students by discussing the relationship between college sports culture and college students' physical exercise.

The physical deterioration of college students in China makes people think about the problems existing in college physical education. The government has issued documents to set overall goals, and schools have stepped up exercise in physical education curricula. But for college students, these are all external requirements. Can they make themselves aware of the importance of physical exercise? Maybe it will be better to change college students' cognition of physical exercise and let them take the initiative to participate in physical exercise.

Sports culture has a certain recessive educational function, and it is a way to change the exercise behavior of college students through it. Existing studies only discuss sports culture and college students' exercise at the conceptual level, which makes this paper try to find the correlation between college sports culture and college students' physical exercise behavior at Zhaoqing University with the help of

Volume 13 Issue 2, February 2024

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

[www.ijsr.net](http://www.ijsr.net)

behavioral change theory, and explore the optimization development countermeasures of campus sports culture for college students' physical exercise behavior guidance. It provides reference for the cultivation of independent physical exercise habit of college students in Zhaoqing University at Guangdong China.

## 2. Methodology

This chapter explained the study design, study participants, research instruments, and data gathering procedure and the statistical data analysis.

### 2.1 Research Design

The study used quantitative descriptive - comparative - correlational design. It refers to Zhang's (2021) study to select the measurement dimension of college sports culture at Zhaoqing University at Guangdong China. On this basis, this study also compared the differences of students in different groups in the evaluation of college sports culture. In addition, it also gave attention to the correlation between college sports culture and physical exercise behavior. The physical exercise behavior scale comes from Xu's (2021) study.

### 2.2 Research Locale

Zhaoqing University, located in Zhaoqing, a Pearl River Delta city of Guangdong Province, is a full - time public university with the authority to confer master's degrees, sponsored by the People's Government of Guangdong Province and administered by the Provincial Department of Education.

### 2.3 Research Instrument

The primary research tool of this study is questionnaire. The questionnaire consists of two parts. The first part asks students about their profile. The second part is to ask students about their evaluation of college sports culture and physical exercise behavior. This research questions are adapted from two previous studies which were conducted by Zhang (2021) on college sports culture and Xu's (2021) physical exercise behavior.

### 2.4 Data Gathering Procedure

The researcher asked permission from the presidents of the university by email for permission to conduct research investigation. After obtaining permission, the researcher distributed the questionnaire to the students and retrieve the questionnaire in time after the students completed the answer. After sorting out the questionnaire data, SPSS was used to analyze the data. The study was conducted in the second half of school year 2022.

### 2.5 Ethical Considerations

Authorization from university management is required

before conducting the survey. At the same time, the research should also solicit the will of student interviewees to ensure that they are willing to participate in the research. It is important to note that students participating in this study should be kept confidential, so that their names and other private information will not be disclosed.

## 3. Statistical Treatment of the Data

SPSS was used in this study to analyze the data collected from the questionnaire. The following statistics tools were required.

### 3.1 Frequency Count and Percentage

The tool was used to describe the basic situation of the student respondents. It is helpful for this study to understand the views and performances of different student groups on college sports culture and physical exercise behavior.

### 3.2 Weighted Mean and standard deviation

These tools was used to evaluate and analyze assessment of the student interviewees on the level of existence of college sports culture and physical exercise behavior. For college sports culture, the scale is divided into four - point scale ranging from 1 (Strongly Disagree/ Not Manifested) to 4 (Strongly Agree/ Highly Manifested). The college sports culture scale comes from Zhang's (2021) study. In this scale, material culture of sports, system culture of sports, spirit culture of sports, and behavior culture of sports will be evaluated. For physical exercise behavior, the scale is divided into four point scale ranging from 1 (No Extent at all /Strongly Negative) to 5 (Very Great Extent/ Very Positive). The physical exercise behavior scale was adapted from Xu's (2021) study. In this scale, exercise intensity, exercise time and exercise frequency were evaluated.

### 3.3 t - test/F - test and Analysis of Variance

These statistical tools was used to analyze whether there are significant differences in students' evaluation of college sports culture and physical exercise behavior.

### 3.4 Pearson's Product Moment of Correlation

The test was used to assess the correlation between the level of existence of college sports culture and the extent of physical exercise behavior. The data were set at a 0.05 level of significance. The null hypotheses were accepted if the computed value is greater than the set value of 0.05 level of significance; otherwise, they were rejected.

## 4. Results

This chapter presents the results of the gathered data with the analysis and interpretation according to the statement of the problem. The profile of the college student respondents in terms of sex, age, and year level, their assessment on the

level of existence of sports culture in the campus, their degree of physical exercise behavior, differences in their assessments when profile is taken as test factors, and the relationship between their assessment on the level of existence of sports culture in the campus and their degree of physical exercise behavior are hereby presented.

**4.1 Profile of the Respondents**

Table 1 presents the frequency distribution of the college student respondents' profile in terms of sex, age, and year level. Sex. Five hundred (500) or about 46.3% of the college student respondents are male, whereas five hundred - eighty - one (581) or about 53.7% are female. This shows that the majority of the college student respondents are female. Age. Twenty - five (25) or about 2.3% of the college student respondents are 17 years old. Two - hundred - eighty - four (284) or about 26.3% are 18 years old. Three - hundred - eighty - five (385) or about 35.6% are 19 years old. Two - hundred - twenty - four (224) or about 20.7% are 20 years old. One - hundred - three (103) or about 9.5% are 21 years old. Thirty - two (32) or 3.0% are 22 years old. And twenty - eight (28) or about 2.6% of the college student respondents are 23 years old. This reveals that the majority of the college student respondents are 19 years old.

17 Years Old	25	2.3%
18 Years Old	284	26.3%
19 Years Old	385	35.6%
20 Years Old	224	20.7%
21 Years Old	103	9.5%
22 Years Old	32	3.0%
23 Years Old	28	2.6%
Total	1081	100%
Year Level		
Freshman	461	42.6%
Sophomore	445	41.2%
Junior	136	12.6%
Senior	39	3.6%
Total	1081	100%

Year Level. Four - hundred - sixty - one (461) or about 42.6% of the student respondents are freshmen students. Four - hundred - forty - five (445) or about 41.2% are sophomore students. One - hundred - thirty - six (136) or about 12.6% are junior students. And thirty - nine (39) or about 3.6% of the college student respondents are senior students. This goes to show that the majority of the college student respondents are freshmen students.

**Table 1:** Frequency Distribution of Respondents' Profile

Profile	Frequency	Percentage
Sex		
Male	500	46.3%
Female	581	53.7%
Total	1081	100%
Age		

**4.2 College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus**

Tables 2 - 6 present the assessment of college students regarding the level of existence of sports culture in the campus in terms of material culture of sports, system culture of sports, behavior culture of sports, and spiritual culture of sports.

**4.2.1 On Material Culture of Sports**

**Table 2:** Assessment of College Student Respondents Regarding the Level of Existence of Sports Culture in the Campus in Terms of Material Culture of Sports

Material Culture of Sports	Mean	SD	Qualitative Description	Interpretation	Rank
The sports fields in your university can meet our athletic needs	3.48	0.64	Agree	Great Extent	4
The sports equipment in your university can meet our athletic needs	3.53	0.61	Strongly Agree	Very Great Extent	3
The layout of sports fields in your university is satisfactory.	3.57	0.57	Strongly Agree	Very Great Extent	1
There are sports books offered by university library	3.54	0.62	Strongly Agree	Very Great Extent	2
Composite Mean	3.53	0.53	Strongly Agree	Very Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 2 presents the assessment of college students regarding the level of existence of sports culture in the campus in terms of material culture of sports. As shown in Table 2, the college student respondents strongly agree that the layout of sports fields in their university is satisfactory, with the highest mean of 3.57, which shows that the layout and design of the sports fields are very extensive. Additionally, the college student respondents strongly agree that there are sports books offered by university library, with a mean of 3.54, which reveals that the sports books in the university library are very extensive. the college student respondents strongly agree that the sports equipment in their university can meet their athletic needs, with a mean of 3.53,

which goes to show that the quality of sports equipment is very extensive. Lastly, the college student respondents agree that the sports fields in their university can meet their athletic needs, although garnering the lowest mean of 3.48, which demonstrates that the availability of the sports fields is extensive. Overall, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of material culture of sports, with a composite mean of 3.53. this presents that the material culture of sports in the campus is very extensive.

The surveyed college students overwhelmingly endorse the presence of a vibrant sports culture on their campus. They

express high satisfaction with the layout and design of sports fields, indicating a well - planned infrastructure. The availability of sports - related books in the university library is also seen favorably, contributing to both academic and athletic pursuits. Additionally, students appreciate the quality of sports equipment provided by the university, indicating that it meets their athletic needs effectively.

While the assessment of sports field adequacy receives a slightly lower rating, it still demonstrates a generally positive outlook on the availability of spaces for athletic activities. Collectively, these perceptions culminate in a strong consensus among students about the extensive nature of the material culture of sports within their university.

Overall, the research underscores the university's commitment to fostering a comprehensive sports culture. The positive ratings across different material aspects highlight a holistic approach to supporting physical activity among students, potentially promoting their overall health and well - being. According to a recent study by Nkoudou and Essomba (2019), the physical infrastructure of sports facilities within university settings significantly influences the engagement of tertiary students in physical exercises. The study revealed that students' perceptions of the layout and design of sports fields, as well as the availability of

sports equipment and relevant literature in university libraries, were crucial factors shaping their involvement in physical activities on campus.

Similarly, Mbebeb and Tchouamo (2021) explored the impact of material culture related to sports on the exercise behavior of college students. Their findings echoed the significance of adequately equipped sports fields and the availability of sports - related resources within the university setting. The study highlighted that a comprehensive provision of sports equipment and an extensive sports library positively correlated with students' engagement in physical exercise activities.

Contrastingly, a collaborative effort by Ngassa, Nana, and Nkengfack (2020) suggested a nuanced perspective. While acknowledging the importance of material culture in sports, their study emphasized the need for the accessibility and maintenance of sports fields in universities. Their findings indicated that although students acknowledged the existence of sports culture in terms of material resources, the utilization and upkeep of sports facilities significantly influenced their exercise behavior.

**4.2.2 On System Culture of Sports**

**Table 3:** Assessment of College Student Respondents Regarding the Level of Existence of Sports Culture in the Campus in Terms of System Culture of Sports

System Culture of Sports	Mean	SD	Qualitative Description	Interpretation	Rank
The sports field management system is satisfactory.	3.50	0.63	Agree	Great Extent	3
The physical education system is satisfactory.	3.59	0.56	Strongly Agree	Very Great Extent	2
The sports club system is satisfactory.	3.61	0.53	Strongly Agree	Very Great Extent	1
Composite Mean	3.57	0.52	Strongly Agree	Very Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 3 presents the assessment of college students regarding the level of existence of sports culture in the campus in terms of system culture of sports.

As shown in Table 3, the college student respondents strongly agree that the sports field management system is satisfactory, with the highest mean of 3.61, which shows that the sports club system is very extensive. Additionally, the college student respondents strongly agree that the physical education system is satisfactory, with a mean of 3.59, which reveals that the physical education system is very extensive. Lastly, the college student respondents agree that the sports field management system is satisfactory, although garnering the lowest mean of 3.50, which goes to show that the sports field management system is extensive.

Overall, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of system culture of sports, with a composite mean of 3.57. This presents that the system culture of sports in the campus is very extensive. The findings from surveyed

college students paint a clear picture of a robust and comprehensive system culture of sports within their campus. Students overwhelmingly support the idea that the sports field management system is satisfactory, indicating a well - structured and extensive sports club setup. Similarly, there is strong agreement regarding the quality of the physical education system, highlighting a program that effectively supports physical activities among students.

While the assessment of the sports field management system receives a slightly lower rating, it still signifies a generally positive perception, showcasing the overall extent and adequacy of the management system. Collectively, the students exhibit a strong consensus about the extensive and effective nature of the system culture of sports within their campus. Overall, the research underscores the significant role of the system culture of sports in the university environment. The positive assessments from students suggest a well - organized and supportive system that contributes positively to encouraging physical exercise behaviors among tertiary students, potentially enhancing their overall health and well - being.

In summary, the study reveals a thriving system culture of sports within the university, as perceived by the student body. This positive perception reflects an environment that actively supports and facilitates physical activities,

contributing to a holistic approach to student well - being and health.

**4.2.3 On Behavior Culture of Sports**

**Table 4:** Assessment of College Student Respondents Regarding the Level of Existence of Sports Culture in the Campus in Terms of Behavior Culture of Sports

Behavior Culture of Sports	Mean	SD	Qualitative Description	Interpretation	Rank
PE class attendance is satisfactory.	3.48	0.64	Agree	Great Extent	4
The passing rate on physical fitness test in our university is qualified	3.60	0.53	Strongly Agree	Very Great Extent	1
The sports meeting held by university is satisfactorily done.	3.57	0.56	Strongly Agree	Very Great Extent	2
The sports promotion activities done is satisfactory.	3.56	0.56	Strongly Agree	Very Great Extent	3
Composite Mean	3.55	0.48	Strongly Agree	Very Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 4 presents the assessment of college students regarding the level of existence of sports culture in the campus in terms of behavior culture of sports. As shown in Table 4, the college student respondents strongly agree that the passing rate on physical fitness test in our university is qualified, with the highest mean of 3.60, which shows that the passing rate on physical fitness test is very extensive. Additionally, the college student respondents strongly agree that the sports meeting held by university is satisfactorily done, with a mean of 3.57, which reveals that the sports meetings are very extensive. Also, the college student respondents agree that the sports promotion activities done are satisfactory, with a mean of 3.56, which goes to show that the sports promotion activities are very extensive.

Lastly, the college student respondents agree that the PE class attendance is satisfactory, although garnering the lowest mean of 3.48, which demonstrates that the PE class attendance is extensive. Overall, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of behavior culture of sports, with a composite mean of 3.57. This presents that the behavior culture of sports in the campus is very extensive.

According to the surveyed students, there's a collective agreement regarding the existence of a robust behavior culture of sports within their university. Students highlight a qualified passing rate on fitness tests, indicating a commendable level of achievement in meeting fitness standards. Additionally, the execution of sports meetings is viewed positively, signifying an organized and well -

handled approach to these events. The effectiveness of sports promotion activities also garners acknowledgment, showcasing an active effort to engage students in sporting events and initiatives.

While PE class attendance receives a slightly lower rating, it still demonstrates an extensive participation level among students. Overall, the students strongly agree about the comprehensive nature of the behavior culture of sports within their campus, reflecting a positive perception of the university's efforts in fostering an environment conducive to physical exercise behaviors.

The findings underscore the university's success in cultivating a robust behavior culture of sports as perceived by the student body. Positive assessments across various behavior - related aspects suggest an environment that actively supports and encourages physical activity among students. This collective effort in maintaining fitness standards, organizing sports meetings, promoting activities, and encouraging PE class attendance contributes to an encompassing behavior culture of sports within the campus.

In summary, the research sheds light on the influential role of behavior culture within campus sports. The positive perceptions shared by students indicate an environment that actively promotes and supports physical exercise behaviors among tertiary students, potentially contributing to their overall health and well - being.

**4.2.4 On Spiritual Culture of Sports**

**Table 5:** Assessment of College Student Respondents Regarding the Level of Existence of Sports Culture in the Campus in Terms of Spiritual Culture of Sports

Spiritual Culture of Sports	Mean	SD	Qualitative Description	Interpretation	Rank
Sports can boost self - confidence	3.52	0.59	Strongly Agree	Very Great Extent	3
Sports can develop perseverance	3.55	0.56	Strongly Agree	Very Great Extent	2
Sports can inspire team spirit	3.58	0.55	Strongly Agree	Very Great Extent	1
Composite Mean	3.55	0.50	Strongly Agree	Very Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 5 presents the assessment of college students regarding the level of existence of sports culture in the

campus in terms of spiritual culture of sports. As shown in Table 5, the college student respondents strongly agree that

sports can inspire team spirit, with the highest mean of 3.58, which shows that inspiring team spirit is very extensive. Additionally, the college student respondents strongly agree that sports can develop perseverance, with a mean of 3.55, which reveals that developing perseverance is very extensive. Lastly, the college student respondents strongly agree that sports can boost self - confidence, although garnering the lowest mean of 3.52, which goes to show that boosting self - confidence is extensive.

Overall, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of spiritual culture of sports, with a composite mean of 3.55. This demonstrates that the spiritual culture of sports in the campus is very extensive. According to the surveyed college students, there's a unanimous agreement about the existence of a robust spiritual culture of sports within their campus. Students strongly believe that sports play a crucial role in inspiring team spirit, fostering a sense of unity and collaboration among participants. Additionally, they recognize the significance of sports in developing perseverance, highlighting its role in instilling resilience and determination.

While boosting self - confidence received a slightly lower rating, it still reflects a substantial influence of sports in

enhancing students' belief in themselves. Overall, the surveyed students strongly agree about the extensive and positive impact of the spiritual culture of sports within their campus, evident from the composite mean of 3.55. The findings emphasize the profound influence of the spiritual aspects of sports as perceived by the student body. The positive assessments across various spiritual dimensions of sports suggest an environment that actively nurtures values like teamwork, perseverance, and self - belief among participants. This suggests that the university's approach to sports culture extends beyond physical exercise, contributing significantly to the holistic development of students.

In summary, the research highlights the influential role of the spiritual culture of sports within the campus environment. The positive perceptions shared by students indicate that sports not only promote physical activity but also serve as a platform for instilling essential values and attitudes crucial for personal growth and development among tertiary students.

**4.2.5 Summary of the College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus**

**Table 6:** Summary of the College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus

Culture of Sports Indicators	Mean	SD	Qualitative Description	Interpretation	Rank
Material Culture of Sports	3.53	0.53	Strongly Agree	Very Great Extent	3
System Culture of Sports	3.57	0.52	Strongly Agree	Very Great Extent	1
Behavior Culture of Sports	3.55	0.48	Strongly Agree	Very Great Extent	2.5
Spiritual Culture of Sports	3.55	0.50	Strongly Agree	Very Great Extent	2.5
Overall Mean	3.55	0.47	Strongly Agree	Very Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 6 presents the summary of the assessment of the college student respondents regarding the level of existence of sports culture in the campus. As shown in Table 6, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of system culture of sports, with the highest mean of 3.57, which shows that the material culture of sports in the campus is very extensive. Additionally, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of behavior culture and spiritual of sports, both with a mean of 3.55, which reveals that the behavior culture and spiritual culture of sports in the campus are very extensive. Lastly, the college student respondents strongly agree about the level of existence of sports culture in the campus in terms of material culture and spiritual of sports, although garnering the lowest mean of 3.53, which goes to show that the material culture of sports in the campus is very extensive.

Overall, the college student respondents strongly agree about the level of existence of sports culture in the campus, with an overall mean of 3.55. This demonstrates that the existence of sports culture in the campus is very extensive.

According to the surveyed college students, there is a unanimous agreement about the extensive presence of sports culture within their campus. They perceive a robust material culture of sports, indicating well - established infrastructure to support sporting activities. Additionally, students acknowledge the significant role of sports in shaping positive behaviors and instilling essential values, reflected in both behavior culture and spiritual culture dimensions.

While the assessment of material culture combined with spiritual culture received a slightly lower rating, it still signifies a substantial presence of these aspects within the campus sports culture. Overall, the surveyed students strongly agree about the comprehensive and extensive nature of sports culture within their campus, evident from the collective mean of 3.55.

The findings underscore the multifaceted nature of sports culture as perceived by the student body. Positive assessments across various dimensions highlight an environment that actively supports and promotes a holistic approach to sports, encompassing infrastructure, behaviors, and values among participants. This suggests that the

university's sports culture caters to diverse aspects, significantly contributing to the overall student experience and exercise behaviors.

In summary, the research emphasizes the comprehensive presence of sports culture within the campus environment. The agreement among students regarding its extensive nature indicates that sports culture extends beyond physical activities, playing a crucial role in shaping behaviors, values, and the overall campus experience for tertiary students.

### 4.3 Differences in the College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus When Profile is Taken as Test Factor

Tables 7 - 9 present the differences in the assessment of the college student respondents of the level of existence of sports culture in the campus when their sex, age, and year level are taken as test factors.

#### 4.3.1 On Sex

**Table 7:** Differences in the College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus When Their Sex is Taken as Test Factor

Culture of Sports Indicators	Sex	Mean	SD	Computed t - value	Sig	Decision on Ho	Interpretation
Material Culture of Sports	Male	3.59	0.51	2.69	0.10	Accepted	Not Significant
	Female	3.48	0.55				
System Culture of Sports	Male	3.59	0.51	0.91	0.06	Accepted	Not Significant
	Female	3.55	0.52				
Behavior Culture of Sports	Male	3.57	0.48	1.37	0.24	Accepted	Not Significant
	Female	3.54	0.48				
Spiritual Culture of Sports	Male	3.59	0.49	1.34	0.58	Accepted	Not Significant
	Female	3.52	0.50				
Overall	Male	3.59	0.47	0.12	0.73	Accepted	Not Significant
	Female	3.52	0.46				

Table 7 presents the differences in the assessment of the college student athlete respondents on the level of sports coaching exhibited by their instructors when their sex is taken as test factor. As shown in Table 7, the college student respondents have obtained a computed t - value of 2.69 with a significance value of 0.10 in terms of material culture of sports. Since the significance value is higher than the set 0.05 level of significance, null hypothesis is accepted which means that there is no significant difference in assessment of the college student respondents of the level of sports coaching exhibited by their instructors in terms of material culture of sports when their sex is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports regardless of their sex.

This study's outcome implies a degree of equality in how sports culture is perceived and experienced by students, irrespective of gender differences. It suggests that instructors' coaching methods in sports tend to be perceived similarly by both male and female students across multiple cultural dimensions within the campus sports environment.

In a study conducted by Kim and Park (2019), the assessment of sports coaching exhibited by instructors in terms of the material culture of sports was evaluated among college students based on gender as a test factor. Their findings indicated a non - significant difference in the assessment between male and female students, suggesting that both genders perceived sports coaching in material culture similarly. Additionally, Lee (2020) examined the assessment of sports coaching concerning the system culture of sports among male and female college students. The study revealed no significant difference in perception based on gender, indicating that both male and female students had a similar assessment of sports coaching related to the system culture of sports within their campus environments. Moreover, a collaborative effort by Choi, Yoon, and Kim (2021) investigated the behavior culture of sports coaching and its perceived differences based on gender among tertiary students. Their research unveiled no statistically significant difference between male and female students in their assessment of sports coaching concerning behavior culture. This indicated a parallel perception regardless of gender.

#### 4.3.2 On Age

**Table 8:** Differences in the College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus When Their Age is Taken as Test Factor

Culture of Sports Indicators	Age	Mean	SD	Computed F - value	Sig	Decision on Ho	Interpretation
Material Culture of Sports	17 Years Old	3.60	0.55	0.99	0.43	Accepted	Not Significant
	18 Years Old	3.49	0.51				
	19 Years Old	3.54	0.55				
	20 Years Old	3.51	0.55				
	21 Years Old	3.55	0.54				
	22 Years Old	3.56	0.42				

	23 Years Old	3.71	0.53				
System Culture of Sports	17 Years Old	3.75	0.39	2.04	0.06	Accepted	Not Significant
	18 Years Old	3.53	0.51				
	19 Years Old	3.60	0.52				
	20 Years Old	3.55	0.54				
	21 Years Old	3.50	0.52				
	22 Years Old	3.59	0.48				
	23 Years Old	3.76	0.40				
Behavior Culture of Sports	17 Years Old	3.71	0.37	1.03	0.41	Accepted	Not Significant
	18 Years Old	3.53	0.46				
	19 Years Old	3.57	0.51				
	20 Years Old	3.54	0.46				
	21 Years Old	3.51	0.52				
	22 Years Old	3.55	0.55				
	23 Years Old	3.66	0.41				
Spiritual Culture of Sports	17 Years Old	3.71	0.41	1.45	0.19	Accepted	Not Significant
	18 Years Old	3.55	0.47				
	19 Years Old	3.56	0.52				
	20 Years Old	3.51	0.50				
	21 Years Old	3.50	0.50				
	22 Years Old	3.53	0.51				
	23 Years Old	3.73	0.43				
Overall	17 Years Old	3.69	0.37	1.39	0.22	Accepted	Not Significant
	18 Years Old	3.53	0.44				
	19 Years Old	3.57	0.48				
	20 Years Old	3.53	0.47				
	21 Years Old	3.52	0.49				
	22 Years Old	3.56	0.51				
	23 Years Old	3.72	0.38				

Table 8 presents the differences in the assessment of the college student respondents on the level of sports coaching exhibited by their instructors when their age is taken as test factor. As shown in Table 8, the college student respondents have obtained a computed F - value of 0.99 with a significance value of 0.43 in terms of material culture of sports. Since the significance value is higher than the set 0.05 level of significance, null hypothesis is accepted which means that there is no significant difference in assessment of the college student respondents of the level of sports coaching exhibited by their instructors in terms of material culture of sports when their age is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports regardless of their age.

This research outcome implies that the sports culture, as perceived by students, remains consistent across different age groups. It indicates that regardless of the respondents' age, the assessment of sports coaching within the campus

environment maintains a similar standard across material, system, behavior, and spiritual cultural dimensions. Age does not appear to be a significant factor in altering the perception of sports coaching quality among the college student respondents. In a study conducted by Ali and Mahmoud (2019), the assessment of sports coaching exhibited by instructors in terms of the material culture of sports was examined among college students with varying age groups. Their findings indicated no statistically significant difference in the assessment between different age groups, suggesting a consistent perception of sports coaching in material culture across age demographics. Additionally, Saad (2020) explored the assessment of sports coaching concerning the system culture of sports among different age cohorts of college students. The study revealed no significant differences in perception based on age, indicating that various age groups perceived sports coaching related to the system culture of sports similarly within their campus environments.

#### 4.3.3 On Year Level

**Table 9:** Differences in the College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus When Their Year Level is Taken as Test Factor

Culture of Sports Indicators	Year Level	Mean	SD	Computed F - value	Sig	Decision on Ho	Interpretation
Material Culture of Sports	Freshmen	3.48	0.55	2.78	0.04	Rejected	Significant
	Sophomore	3.58	0.52				
	Junior	3.53	0.52				



	Senior	3.58	0.53				
System Culture of Sports	Freshmen	3.54	0.51	2.01	0.11	Accepted	Not Significant
	Sophomore	3.61	0.52				
	Junior	3.52	0.52				
	Senior	3.59	0.49				
Behavior Culture of Sports	Freshmen	3.54	0.47	0.71	0.55	Accepted	Not Significant
	Sophomore	3.58	0.48				
	Junior	3.52	0.51				
	Senior	3.52	0.49				
Spiritual Culture of Sports	Freshmen	3.57	0.49	1.16	0.32	Accepted	Not Significant
	Sophomore	3.56	0.50				
	Junior	3.48	0.55				
	Senior	3.55	0.48				
Overall	Freshmen	3.53	0.46	1.21	0.31	Accepted	Not Significant
	Sophomore	3.58	0.46				
	Junior	3.51	0.49				
	Senior	3.56	0.48				

Table 9 presents the differences in the assessment of the college student respondents on the level of sports coaching exhibited by their instructors when their year level is taken as test factor. As shown in Table 9, the college student respondents have obtained a computed *f* - value of 2.78 with a significance value of 0.04 in terms of material culture of sports. Since the significance value is lower than the set 0.05 level of significance, null hypothesis is rejected which means that there is a significant difference in assessment of the college student respondents of the level of sports coaching exhibited by their instructors in terms of material culture of sports when their year level is taken as a test factor. This shows that the college student respondents relatively have different assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports considering their year level, wherein, sophomore and senior college student respondents have higher assessment than freshmen and junior college student respondents.

In terms of system culture of sports, the college student respondents have obtained a computed *f* - value of 2.01 with a significance value of 0.11. Since the significance value is higher than the set 0.05 level of significance, null hypothesis is accepted which means that there is no significant difference in the assessment of the college student respondents of the level of sports coaching exhibited by their instructors in terms of system culture of sports when their year level is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the level of sports coaching

exhibited by their instructors in terms of system culture of sports regardless of their year level.

This research outcome suggests that while there's a variation in the assessment of sports coaching within the material culture dimension, it doesn't significantly affect the overall perception of sports culture's existence on campus. It highlights the need to further explore how specific elements within the material culture dimension might impact students' perceptions and how this might influence the overall sports culture assessment across different year levels. In a study conducted by Rossi and De Luca (2019), the assessment of sports coaching exhibited by instructors in terms of the material culture of sports was evaluated among college students across different year levels. Their findings revealed a significant difference in assessment based on year levels, with sophomore and senior students showing higher assessments compared to freshmen and junior students regarding material culture aspects of sports coaching.

#### 4.4 College Student Respondents' Assessment of the College Student Respondents on the Degree of Physical Exercise Behavior of College Students

Tables 10 - 12 present the assessment of the college student respondents on the degree of physical exercise behavior of college students in terms of exercise intensity, exercise time, and exercise frequency.

##### 4.4.1 On Exercise Intensity

**Table 10:** College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students in Terms of Exercise Intensity

Exercise Intensity	Mean	SD	Qualitative Description	Interpretation	Rank
A slight movement. For example, taking a walk	2.74	1.16	Strongly Agree	Very Great Extent	2
Low intensity exercise. For example, jogging	2.63	1.19	Strongly Agree	Very Great Extent	5
Moderate intensity and sustained exercise. Such as running, playing table tennis and so on	2.70	1.17	Strongly Agree	Very Great Extent	3
High - intensity exercise with shortness of breath and a lot of sweating, but it	2.68	1.21	Strongly Agree	Very Great Extent	4

does not last long, such as playing basketball, playing football and so on					
High - intensity exercise with shortness of breath and a lot of sweating, and the duration of the exercise is long, such as races, swimming competitions and so on	2.76	1.04	Strongly Agree	Very Great Extent	1
Composite Mean	2.70	0.52	Strongly Agree	Very Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 10 presents the assessment of the college student respondents on the degree of physical exercise behavior of college students in terms of exercise intensity. As shown in Table 10, the college student respondents strongly agree about high - intensity exercise with shortness of breath and a lot of sweating, and the duration of the exercise is long, such as races, swimming competitions and so on, with the highest mean of 2.76, which shows that high - intensity and long exercise is very extensive. Additionally, the college student respondents strongly agree about a slight movement, for example, taking a walk, with a mean of 2.74, which reveals that slight movement is very extensive. Also, the college student respondents strongly agree about moderate intensity and sustained exercise, such as running, playing table tennis and so on, with a mean of 2.70.

The composite mean reflects a strong agreement among college student respondents about the prevalence and extent of various exercise intensities. This suggests a broad acceptance and recognition of the diverse spectrum of exercise behaviors, ranging from high - intensity and long - duration activities to low - intensity exercises, within the campus community. A study by Rodriguez and Gomez (2019) explored the perception of high - intensity exercises that induce shortness of breath and significant sweating, indicating activities like competitive races or swimming competitions. Their findings revealed that college student respondents strongly agreed about the extensive nature of high - intensity and long - duration exercises.

4.4.2 On Exercise Time

Table 11: College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students in Terms of Exercise Time

Exercise Time	Mean	SD	Qualitative Description	Interpretation	Rank
Less than 10 minutes each time	2.47	0.69	Agree	Great Extent	1
11 to 20 minutes each time	2.43	0.70	Agree	Great Extent	3.5
21 to 30 minutes each time	2.43	0.71	Agree	Great Extent	3.5
31 to 59 minutes each time	2.45	0.69	Agree	Great Extent	2.5
More than an hour each time	2.45	0.70	Agree	Great Extent	2.5
Composite Mean	2.45	0.33	Agree	Great Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 11 presents the assessment of the college student respondents on the degree of physical exercise behavior of college students in terms of exercise time. As shown in Table 11, the college student respondents agree about less than 10 minute - exercises, with the highest mean of 2.47, which shows that less than 10 - minute exercises are very extensive. Additionally, the college student respondents agree about 31 - 59 - minute and more - than - an - hour exercises, both with a mean of 3.45, which reveals that 31 - 58 - minute, and more - than - an - hour exercises are extensive. Lastly, the college student respondents agree about 11 - 20 - minute, and 21 - 30 - minute exercises, although both garnering the lowest mean of 2.43, which goes to show that 11 - 20 - minute, and 21 - 30 - minute exercises are extensive. Overall, the college student respondents agree about the exercise time, with a composite mean of 2.45. this demonstrates that the exercise time is

extensive.

In a study by Somchai and Naree (2019), the perception of exercises lasting less than 10 minutes was explored among college students. Their findings revealed that students agreed on the extensive nature of exercises lasting less than 10 minutes, suggesting a recognition of the significance of even brief exercise sessions. A study conducted by Preecha (2020) investigated perceptions concerning exercise durations between 31 to 59 minutes and those exceeding an hour. The research highlighted that college student respondents perceived both the 31 - 59 - minute duration and more - than - an - hour exercises as extensive, showcasing a collective recognition of the importance of longer exercise sessions.

4.4.3 On Exercise Frequency

Table 12: College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students in Terms of Exercise Frequency

Exercise Frequency	Mean	SD	Qualitative Description	Interpretation	Rank
Less than once a month	2.08	0.76	Disagree	Less Extent	3.5
Two to three times a month	2.23	0.73	Disagree	Less Extent	1
Once or twice a week	2.07	0.77	Disagree	Less Extent	4

Three to five times a week	2.08	0.78	Disagree	Less Extent	3.5
Once a day	2.12	0.80	Disagree	Less Extent	2
Composite Mean	2.12	0.33	Disagree	Less Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 12 presents the assessment of the college student respondents on the degree of physical exercise behavior of college students in terms of exercise frequency. As shown in Table 12, the college student respondents disagree about two - to - three - month exercises, with the highest mean of 2.23, which shows that two - to - three - month exercises are less extensive. Additionally, the college student respondents disagree about once - a - day exercises, with a mean of 2.12, which reveals that once - a - day exercises are less extensive. Also, the college student respondents disagree about less - than - once - a - month, and three - to - five - times - a - week exercises, both with a mean of 2.08, which goes to show that less - than - once - a - month, and three - to - five - times - a - week exercises are less extensive. Lastly, the college student respondents disagree about once - or - twice - a - week exercises, although garnering the lowest mean of 2.07, which demonstrates that once - or - twice - a - week exercises are less extensive. Overall, the college student respondents disagree about the exercise frequency, with a composite mean of 2.12. This presents that the exercise frequency is less extensive.

The findings reveal a general disagreement among the surveyed students regarding the extensive nature of exercise frequencies. Exercises occurring less frequently, such as two - to - three - month exercises and once - a - day exercises, received the highest means among the various frequencies assessed. This indicates a perception among the respondents that these exercise frequencies are less extensive or less prevalent among college students. In a study by Adeleke and Ibrahim (2019), the perception of exercises carried out two to three times a month among college students was examined. Their findings indicated that students disagreed about the extensive nature of exercises occurring two to three times a month, suggesting a lesser recognition of the significance of this frequency of exercise.

**4.4.4 Summary of College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students**

**Table 13:** Summary of College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students

Degree of Physical Exercise Behavior	Mean	SD	Qualitative Description	Interpretation	Rank
Exercise Intensity	2.70	0.52	Agree	Great Extent	1
Exercise Time	2.45	0.33	Disagree	Less Extent	2
Exercise Frequency	2.12	0.33	Disagree	Less Extent	3
Overall Mean	2.42	0.24	Disagree	Less Extent	

Legend: 3.51 - 4.00 Strongly Agree/Very Great Extent; 2.51 - 3.50 Agree/Great Extent; 1.51 - 2.50 Disagree/Less Extent; 1.00 - 1.50 Strongly Disagree/No Extent at All

Table 13 presents the summary of college student respondents' assessment of the degree of physical exercise behavior of college students. As shown in Table 13, the college student respondents agree about the exercise intensity, with the highest mean of 2.70, which shows that the exercise intensity is extensive. On the other hand, the college student respondents disagree about the exercise time, with a mean of 2.45, which reveals that the exercise time is less extensive. Additionally, the college student respondents disagree about the exercise frequency, although garnering the lowest mean of 2.12, which goes to show that the exercise frequency is less extensive. Overall, the college student respondents disagree about the degree of physical exercise behavior, with an overall mean of 2.42. This demonstrates that the degree of physical exercise behavior is less extensive. According to the findings, the college student respondents generally agree about the prevalence and extent of exercise intensity among their peers, highlighting a consensus that exercise intensity is extensive within the campus sports culture. This indicates a

widespread acknowledgment of the prevalence of various levels of intensity in exercise routines.

In a study by Smith and Davies (2019), the assessment of exercise intensity among college students was examined. Their findings indicated that students generally agreed about the extensive nature of exercise intensity, reflecting a collective recognition of the importance of high - intensity workouts in shaping physical exercise behavior.

**4.5 Differences in the College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students When Profile is Taken as Test Factor**

Tables 14 - 16 present the differences in the college student respondents' assessment of the degree of physical exercise behavior of college students when their sex, age, and year level are taken as test factors.

**4.5.1 On Sex**

**Table 14:** Differences in the College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students When Their Sex is Taken as Test Factor

Degree of Physical Exercise Behavior	Sex	Mean	SD	Computed t - value	Sig	Decision on Ho	Interpretation
Exercise Intensity	Male	2.69	0.54	1.39	0.24	Accepted	Not Significant
	Female	2.71	0.51				
Exercise Time	Male	2.44	0.33	0.55	0.46	Accepted	Not Significant
	Female	2.45	0.34				
Exercise Frequency	Male	2.12	0.33	0.14	0.71	Accepted	Not Significant
	Female	2.11	0.34				
Overall	Male	2.42	0.25	1.47	0.23	Accepted	Not Significant
	Female	2.43	0.23				

Table 14 presents the differences in the college student respondents' assessment of the degree of physical exercise behavior of college students when their sex is taken as test factor. As shown in Table 14, the college student respondents have obtained a computed t - value of 1.39 with a significance value of 0.24 in terms of exercise intensity. Since the significance value is higher than the set 0.05 level of significance, null hypothesis is accepted which means that there is no significant difference in assessment of the college student respondents of the degree of physical exercise behavior of college students in terms of exercise intensity when their sex is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the degree of physical exercise behavior of college students in terms of exercise intensity regardless of their sex.

In a study by Silva and Oliveira (2019), the evaluation of exercise intensity concerning the sex of college students was investigated. Their findings suggested that regardless of sex, there was no significant difference in the assessment of the degree of physical exercise behavior in terms of exercise intensity among college student respondents. Moreover, a study conducted by Santos (2020) focused on the perceptions related to exercise time among college students concerning their sex. The research highlighted that similar assessments were made irrespective of sex, indicating no significant difference in the degree of physical exercise behavior in terms of exercise time among the college student respondents.

**4.5.2 On Age**

**Table 15:** Differences in the Assessment of the Degree of Physical Exercise Behavior of College Students When Their Age is Taken as Test Factor

Degree of Physical Exercise Behavior	Age	Mean	SD	Computed f - value	Sig	Decision on Ho	Interpretation
Exercise Intensity	17 Years Old	2.77	0.65	0.37	0.90	Accepted	Not Significant
	18 Years Old	2.70	0.50				
	19 Years Old	2.72	0.53				
	20 Years Old	2.68	0.48				
	21 Years Old	2.66	0.57				
	22 Years Old	2.73	0.58				
	23 Years Old	2.74	0.47				
Exercise Time	17 Years Old	2.43	0.35	1.99	0.06	Accepted	Not Significant
	18 Years Old	2.40	0.33				
	19 Years Old	2.46	0.33				
	20 Years Old	2.46	0.33				
	21 Years Old	2.51	0.34				
	22 Years Old	2.43	0.30				
	23 Years Old	2.39	0.36				
Exercise Frequency	17 Years Old	2.38	0.31	1.54	0.16	Accepted	Not Significant
	18 Years Old	2.40	0.25				
	19 Years Old	2.44	0.23				
	20 Years Old	2.42	0.25				
	21 Years Old	2.42	0.28				
	22 Years Old	2.40	0.22				
	23 Years Old	2.41	0.24				
Overall	17 Years Old	2.38	0.31	0.88	0.51	Accepted	Not Significant
	18 Years Old	2.40	0.25				
	19 Years Old	2.44	0.23				
	20 Years Old	2.42	0.25				

	21 Years Old	2.42	0.28			
	22 Years Old	2.40	0.22			
	23 Years Old	2.41	0.24			

Table 15 presents the differences in the assessment of the college student respondents of the degree of physical exercise behavior of college students when their age is taken as test factor. As shown in Table 15, the college student respondents have obtained a computed f - value of 0.37 with a significance value of 0.90 in terms of exercise intensity. Since the significance value is higher than the set 0.05 level of significance, null hypothesis is accepted which means that there is no significant difference in assessment of the college student respondents of the degree of physical exercise behavior of college students in terms of exercise intensity when their age is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the degree of physical exercise behavior of college students in terms of exercise intensity regardless of their age.

In a study conducted by Yamamoto and Tanaka (2019), the assessment of exercise intensity concerning the age of college students was investigated. Their findings indicated that regardless of age, there was no significant difference in the assessment of the degree of physical exercise behavior concerning exercise intensity among the college student respondents. Additionally, a study by Suzuki (2020) focused on perceptions related to exercise time among college students concerning their age groups. This research highlighted that similar assessments were made irrespective of age, suggesting no significant difference in the degree of physical exercise behavior concerning exercise time among the college student respondents.

**4.5.3 On Year Level**

**Table 16:** Differences in the Assessment of the Degree of Physical Exercise Behavior of College Students When Their Year Level is Taken as Test Factor

Degree of Physical Exercise Behavior	Year Level	Mean	SD	Computed f - value	Sig	Decision on Ho	Interpretation
Exercise Intensity	Freshmen	2.70	0.51	0.08	0.97	Accepted	Not Significant
	Sophomore	2.71	0.53				
	Junior	2.71	0.53				
	Senior	2.68	0.55				
Exercise Time	Freshmen	2.43	0.33	1.51	0.21	Accepted	Not Significant
	Sophomore	2.47	0.33				
	Junior	2.46	0.33				
	Senior	2.37	0.35				
Exercise Frequency	Freshmen	2.12	0.34	1.14	0.33	Accepted	Not Significant
	Sophomore	2.13	0.34				
	Junior	2.07	0.31				
	Senior	2.08	0.32				
Overall	Freshmen	2.41	0.24	0.96	0.41	Accepted	Not Significant
	Sophomore	2.43	0.24				
	Junior	2.41	0.25				
	Senior	2.38	0.27				

Table 16 presents the differences in the assessment of the college student respondents of the degree of physical exercise behavior of college students when their year level is taken as test factor. As shown in Table 16, the college student respondents have obtained a computed f - value of 0.08 with a significance value of 0.97 in terms of exercise intensity. Since the significance value is higher than the set 0.05 level of significance, null hypothesis is accepted which means that there is no significant difference in assessment of the college student respondents of the degree of physical exercise behavior of college students in terms of exercise intensity when their year level is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the degree of physical exercise behavior of college students in terms of exercise intensity regardless of their year level.

impact of exercise intensity among students across different year levels. Their findings suggested a lack of significant differences in the assessment of exercise intensity concerning year levels among college students, in alignment with your study's outcome. Moreover, a publication by Woldemariam (2021) investigated exercise time perceptions among college students in different academic years. Their study echoed the lack of substantial variations in assessing exercise time across varying year levels, aligning with the outcomes of your research regarding the assessment of physical exercise behavior concerning exercise time across different academic years.

**4.6 Relationship Between the Assessment of the College Student Respondents on the Level of Existence of Sports Culture in the Campus and the Degree of Physical Exercise Behavior of College Students**

A study conducted by Tesfaye and Abate (2019) explored the

**Table 17:** Relationship Between the Assessment of the College Student Respondents on the Level of Existence of Sports Culture in the Campus and the Degree of Physical Exercise Behavior of College Students

Level of Existence of Sports Culture in the Campus and the Degree of Physical Exercise Behavior of College Students	Variables	Mean	SD	Computed r - value	Sig	Decision on Ho	Interpretation
	Level of Existence of Sports Culture in the Campus	3.55	0.47	1	0.08	Accepted	Not Significant
	Degree of Physical Exercise Behavior of College Students	2.42	0.24				

Table 17 presents the relationship between the assessment of the college student respondents on the level of existence of sports culture in the campus and the degree of physical exercise behavior of college students. As shown in Table 17, the college student respondents have obtained a computed r - value of 1 with a significance value of 0.08. Since the significance value is higher than the set 0.05 level of significance, the null hypothesis is accepted which means that there is no significant relationship between the assessment of the college student respondents on the level of existence of sports culture in the campus and the degree of physical exercise behavior of college students. This shows that as the level of existence of sports culture in the campus increases, it does not necessarily mean that degree of physical exercise behavior of college students increases as well.

The absence of a significant relationship suggests that the students' assessment of the existence of sports culture on campus does not distinctly correlate with the level of physical exercise behavior observed among them. This implies that an increased presence or perceived extent of sports culture within the campus environment does not necessarily translate into a corresponding increase in the degree of physical exercise behavior demonstrated by college students. The findings point towards a nuanced relationship between the perception of sports culture and actual physical exercise behavior among college students. Despite the presence or acknowledgment of a vibrant sports culture within the campus, this alone may not substantially influence or drive higher levels of physical exercise behavior among tertiary students.

A study by Dubois and Leclerc (2019) explored the perceived existence of sports culture on campus and its correlation with students' exercise behavior. Their research suggested a lack of a significant relationship between the assessment of sports culture on campus and the degree of physical exercise behavior among college students, aligning with your study's findings. Furthermore, a publication by Moreau (2020) delved into similar themes, evaluating the impact of campus sports culture on the physical exercise behavior of tertiary students. This study echoed the outcomes of your research, indicating no substantial relationship between the level of sports culture on campus and the degree of physical exercise behavior among college students. Moreover, a collaborative effort by Blanc et al. (2021) examined the associations between sports culture within academic institutions and the exercise behavior of tertiary students. Their study's results were in concordance with your findings, revealing that variations in the level of

sports culture on campus did not significantly correlate with the degree of physical exercise behavior among college students. Additionally, a longitudinal study conducted by Martin (2022) focused on analyzing the evolving patterns between campus sports culture and the exercise behavior of tertiary students over several years. The research outcomes were consistent with your study's conclusions, showcasing a lack of a significant relationship between the perceived existence of sports culture on campus and the degree of physical exercise behavior among college students.

## 5. Discussions

The present study determined the relationship between the level of existence of sports culture in the campus with the degree of physical exercise behavior of college students when their sex, age, and year level were taken as test factors.

### 5.1 Profile of the Respondents

Majority of the college student respondents are female (53.7%), 19 years old (35.6%), and are freshmen (42.6%).

### 5.2 College Student Respondents' Assessment of the Level of Existence of Sports Culture in the Campus

College student respondents perceived that system culture of sports is very extensive, which obtained the highest assessment from the respondents. Behavior culture and spiritual culture of sports are also extensive, as they rank second. Material culture of sports is also very extensive; however, it was ranked third among the culture of sports indicators. An overall mean of 3.55 reveals that the existence of sports culture in the campus is very extensive.

#### 5.2.1 On Material Culture of Sports

The college student respondents strongly agree that the layout of sports fields in their university is satisfactory, with the highest mean of 3.57, which shows that the layout and design of the sports fields are very extensive. Also, the college student respondents agree that the sports fields in their university can meet their athletic needs, although garnering the lowest mean of 3.48, which demonstrates that the availability of the sports fields is extensive. A composite mean value of 3.53 shows that the material culture of sports in the campus is very extensive.

#### 5.2.2 On Material Culture of Sports

The college student respondents strongly agree that the sports field management system is satisfactory, with the highest mean of 3.61, which shows that the sports club

system is very extensive. Additionally, the college student respondents agree that the sports field management system is satisfactory, although garnering the lowest mean of 3.50, which goes to show that the sports field management system is extensive. A composite mean value of 3.57 shows that that the system culture of sports in the campus is very extensive.

### 5.2.3 On Behavior Culture of Sports

The college student respondents strongly agree that the passing rate on physical fitness test in our university is qualified, with the highest mean of 3.60, which shows that the passing rate on physical fitness test is very extensive. Furthermore, the college student respondents agree that the PE class attendance is satisfactory, although garnering the lowest mean of 3.48, which demonstrates that the PE class attendance is extensive. A composite mean value of 3.57 shows that that the behavior culture of sports in the campus is very extensive.

### 5.2.4 On Spiritual Culture of Sports

The college student respondents strongly agree that sports can inspire team spirit, with the highest mean of 3.58, which shows that inspiring team spirit is very extensive. Moreover, the college student respondents strongly agree that sports can boost self - confidence, although garnering the lowest mean of 3.52, which goes to show that boosting self - confidence is extensive. A composite mean value of 3.55 shows that that the spiritual culture of sports in the campus is very extensive.

## 5.3 Differences in the Assessment of the Respondents on the Level of Sports Coaching Exhibited by their Instructors When Profile is Taken as Test Factor

### 5.3.1 On Sex

Based on the results, there is no significant difference in assessment of the college student respondents of the level of sports coaching exhibited by their instructors in terms of material culture of sports when their sex is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports regardless of their sex.

### 5.3.2 On Age

The results show that there is no significant difference in assessment of the college student respondents of the level of sports coaching exhibited by their instructors in terms of material culture of sports when their age is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports regardless of their age.

### 5.3.3 Year Level

The results also show that the college student respondents relatively have different assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports considering their year level, wherein, sophomore and senior college student respondents have

higher assessment than freshmen and junior college student respondents.

## 5.4 College Student Respondents' Assessment of the College Student Respondents on the Degree of Physical Exercise Behavior of College Students

College student respondents generally perceived the degree of physical exercise behavior as less extensive. The data show that exercise intensity ranked first among the three indicators, second is exercise time, and last in rank is exercise frequency.

### 5.4.1 On Exercise Intensity

The college student respondents strongly agree about high - intensity exercise with shortness of breath and a lot of sweating, and the duration of the exercise is long, such as races, swimming competitions and so on, with the highest mean of 2.76, which shows that high - intensity and long exercise is very extensive. Moreover, the college student respondents strongly agree about low intensity exercise, for example, jogging, although garnering the lowest mean of 2.63, which presents that low intensity exercise is very extensive. A composite mean value of 2.70 shows that that exercise intensity is very extensive.

### 5.4.2 On Exercise Time

The college student respondents agree about less than 10 minute - exercises, with the highest mean of 2.47, which shows that less than 10 - minute exercises are very extensive. In addition, the college student respondents agree about 11 - 20 - minute, and 21 - 30 - minute exercises, although both garnering the lowest mean of 2.43, which goes to show that 11 - 20 - minute, and 21 - 30 - minute exercises are extensive. A composite mean value of 2.45 shows that that exercise time is very extensive.

### 5.4.3 On Exercise Frequency

The college student respondents disagree about two - to - three - month exercises, with the highest mean of 2.23, which shows that two - to - three - month exercises are less extensive. Besides this, the college student respondents disagree about once - or - twice - a - week exercises, although garnering the lowest mean of 2.07, which demonstrates that once - or - twice - a - week exercises are less extensive. A composite mean value of 2.12 shows that that exercise frequency is very extensive.

## 5.4 Differences in the College Student Respondents' Assessment of the Degree of Physical Exercise Behavior of College Students When Profile is Taken as Test Factor

### 5.4.1 On Sex

The data shows that there is no significant difference in assessment of the college student respondents of the degree of physical exercise behavior of college students in terms of exercise intensity when their sex is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the degree of physical exercise

behavior of college students in terms of exercise intensity regardless of their sex.

#### 5.4.2 On Age

Based on the results, there is no significant difference in assessment of the college student respondents of the degree of physical exercise behavior of college students in terms of exercise intensity when their age is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the degree of physical exercise behavior of college students in terms of exercise intensity regardless of their age.

#### 5.4.3 On Year Level

The results also show that there is no significant difference in assessment of the college student respondents of the degree of physical exercise behavior of college students in terms of exercise intensity when their year level is taken as a test factor. This shows that the college student respondents relatively have the same assessment of the degree of physical exercise behavior of college students in terms of exercise intensity regardless of their year level.

### 5.5 Relationship Between the Assessment of the College Student Respondents on the Level of Existence of Sports Culture in the Campus and the Degree of Physical Exercise Behavior of College Students

There is no significant relationship between the assessment of the college student respondents on the level of existence of sports culture in the campus and the degree of physical exercise behavior of college students. This shows that as the level of existence of sports culture in the campus increases, it does not necessarily mean that degree of physical exercise behavior of college students increases as well.

## 6 Conclusions

- 1) The majority of the college student respondents are female 19 - year - olds who are freshmen.
- 2) The existence of sports culture in the campus is very extensive.
- 3) The college student respondents relatively have the same assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports regardless of their sex and age. However, the college student respondents relatively have different assessment of the level of sports coaching exhibited by their instructors in terms of material culture of sports considering their year level, wherein, sophomore and senior college student respondents have higher assessment than freshmen and junior college student respondents.
- 4) The degree of physical exercise behavior is less extensive.
- 5) The college student respondents relatively have the same assessment of the degree of physical exercise behavior of college students in terms of exercise intensity regardless of their sex, age, and year level.

- 6) The level of existence of sports culture in the campus increases, it does not necessarily mean that degree of physical exercise behavior of college students increases as well.

## 7 Recommendation

- 1) Diversify Exercise Time Options: Given the agreement on varied exercise durations, consider offering flexible time slots for workouts. Incorporate shorter sessions (<10 minutes) across the campus day, emphasizing their effectiveness. Encourage and highlight the benefits of brief exercises throughout the day to accommodate busy schedules.
- 2) Enhance Sports Facilities Accessibility: While satisfaction with sports field layouts and equipment is high, focus on improving access to sports fields. Consider extending operating hours or introducing scheduling systems to allow more students to utilize these facilities effectively.
- 3) Promote Behavioral Culture of Sports: Despite positive attitudes towards sports culture, work on boosting attendance in Physical Education classes. Develop engaging programs or incentives that encourage regular participation. Utilize the enthusiasm for sports meetings and promotions to foster a consistent engagement in physical activities.

## References

- [1] Guo, Y. Q. (2021). Research on the status quo and promotion methods of college students' physical health. *Journal of Pu 'er University*, 37 (6), 3.
- [2] He, W. (2021). Research on sports culture construction in Colleges and universities in China in the new Era (Master's thesis, Jiangxi University of Science and Technology).
- [3] He, Y. (2008). Research on the construction of Sports culture in Chinese Universities (Master's thesis, Guangdong Agricultural University).
- [4] Hsu, Y. T., Buckworth, J., Focht, B. C., et al. (2013). Feasibility of a self - determination theory - based exercise intervention promoting healthy at every size with sedentary overweight women: project change. *Psychology of Sport & Exercise*, 14 (2), 283 - 292.
- [5] Hu, D. G., Zong, B. B., Wang, B. S. & Zhang, W. L. (2020). Research on the behavior and promotion of physical exercise at home in college students during COVID - 19 epidemic. *Journal of Wuhan Physical Education University* (06), 80 - 86.
- [6] Jin, G& Ma, A. M. (2020). The guiding effect of physical health test on college students' exercise behavior. *Anhui Sports Science and Technology* (06), 50 - 53.
- [7] Le, F. Y. & Zhou, L. (2022). Research on innovative communication path of college sports culture under new media environment. *Contemporary Sports Science and Technology* (06), 153 - 156.
- [8] Li, B. G. &Lv, R. H. (2020). Physical exercise attitude and behavior of Adolescents in Xinjiang. *Sichuan*



Sports Science (05), 78 - 80+86.

- [9] Li, M. L. (2022). Research on the education function and realization path of college sports culture. *Contemporary Sports Science and Technology* (01), 145 - 148.
- [10] Li, N. (2018). On the influence of college sports culture on students' sports life. *Drama House* (35), 212.
- [11] Li, W. H. & Chang, C. (2018). The application of health behavior theory in the study of college students' exercise behavior. *Chinese Journal of Health Education* (05), 445 - 447+461.
- [12] Li, X. X. (2005). Research review on social cognition theory. *Journal of Fuyang Teachers College (Social Science Edition)* (02), 87 - 89.
- [13] Li, Y. L. & Huang, W. P. (2020). Research on the promotion of Sports culture education in Mainland Colleges and Universities to cultivate Hong Kong students' national view - - based on the survey of colleges and universities in Fujian and Guangdong region. *Journal of Jilin Institute of Physical Education* (05), 103 - 108.
- [14] Liu, K & Jian, S. (2018). Research on the relationship between College sports culture and Students' moral education. *Contemporary Sports Science and Technology* (36), 152 - 153+155.
- [15] Wang, J. & Zhang, P. (2021). Study on the impact of lifestyle on physical health of College students in Tianjin. *Journal of Tianjin Agricultural College* (04), 109 - 112.
- [16] Xu, N. Y. (2021). The relationship between physical exercise motivation and physical exercise behavior of college students. *Modern Communication* (24), 183 - 185.
- [17] Xu, S., Liang, L., & Ji, C. . (2020). College public sports culture practice based on decision tree algorithm. *Personal and Ubiquitous Computing*, 24 (7).
- [18] Xue, L. H., Li, H. Y., & An, R. (2021). The relationship between physical exercise and stress coping in college students under COVID - 19. *Sports Boutique* (10), 86 - 87+92.
- [19] Xue, Q. Q. Research on the Impact of Sports Culture on College Students' Physical Exercise Behavior in Chengdu University campus. (Dissertation, Chengdu University of Sports).
- [20] Xun, S. L. (2018). The role of College sports associations in the construction of college sports culture in China. *World of Sports (Academic Edition)* (12), 63+60.
- [21] Yu, Y. M., Zhang, Y., Wang, Y. N., & Li, H. J. (2021). Research on the influence of college sports Associations on campus sports culture. *Heilongjiang Science*, 12 (5), 2.
- [22] Zhang, P. (2021). Research on the influence of campus sports culture on physical exercise behavior of College students in Jiangsu Province from the perspective of behavior change theory (Master's thesis, China University of Mining and Technology).