

Examining Quality of Life and Sleep Patterns: A Comparative Study of Sports and Non-sports Students

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Abstract: ***Purpose:** The goal is to create a well-being measure that effectively captures students' Quality of Life, rather than an overall QOL assessment of college students. There was no research found in the literature that created a valid well-being measure focusing on students' Quality of Life in colleges. Through this investigation, the students can realize the quality of life and sleep quality. The purpose of the study is to investigate the quality of life and sleep quality between physical education and non-physical education students at Pondicherry University. **Methods:** A hundred participants (both male and female) were selected for the study from Pondicherry University, 50 students from physical education and 50 from other departments. Quota sampling methods were used for the selection of the subject. Quality of life questionnaire WHOQOL - BREF (WHO 1996) and Groninger sleep quality questionnaire (Leppamak et al., 2003) were used as a tool. The entire subject participated and responded to the questionnaire without bias. **Results:** The result of the study shows that quality of life has no significant difference. But in the case of physical education female students have a significant change in sleep quality when compared to other department non-physical education students. **Conclusion:** The results concluded that there is no statistically significant difference in quality of life between physical education and non-physical education students. However, in the case of female students and non-physical education, female students have a significant change in sleep quality.*

Keywords: Quality of life, Sleep, Well-being, Physical Education

1. Introduction

Quality of life and sleep quality is very essential for college students. WHO, define Quality of Life as "an individual's perception of their position in life in relation to their goals, expectations, standards, and concerns, and in the context of the culture and value systems in which they live" (Skevington 2004). According to Triani et al. (2019), the standard of a person's fundamental and supplementary conditions is their quality of life. Quality of life is affected by one's physical, mental, psychological, and emotional well-being, family and friend relationships, health, education, and other factors. Sleep seems to stabilize as well as enhance a wide variety of memory contents (Diekelmann and Born, 2010), which is one of the many recent results that emphasize the significance of sleep for memory consolidation. Additionally, sleep encourages awareness of unspoken laws and aids in the generalization of information (Ellenbogen et al., 2007). The amount of sleep that college students get and the overall quality of their lives are therefore essential aspects.

Health is defined as "a state of complete physical, mental, and social well-being" rather than "the absence of disease and disability" (W. H. O, 1995). These circumstances include factors that affect a person's health, education, social interactions, and other aspects of their physical, mental, psychological, and emotional well-being as well as their social connections with family and friends. Many research has been conducted to investigate the relationship between college students' QOL and other aspects such as personality, health, and the environment. A positive association was discovered between college students' reported QOL and self-rated health. Discovered the associations between subjective well-being and personality constructs such as

self-esteem, collective self-esteem, and optimism. The study determines how affect and daily occurrences influence life happiness in college students (Sirgy et al., 2007). The use of Alcoholic beverages, sleeping habits, and academic performance have all been linked, a systematic analysis of research involving young adults consistently found that two out of every three college students reported hazardous alcohol intake (Davoren et al., 2016). The quality of life based on inhaling and exhaling smoke from burning tobacco, and other materials, such as marijuana, or electronic cigarettes is referred to as smoking, Phillips (1995). The world's leading preventable cause of death is smoking cigarettes. It's affected the quality of life of college students.

Sleep is a naturally occurring state of rest in which consciousness and voluntary movements are reduced. It is a fundamental physiological need that is essential for overall health and well-being. Sleep is regulated by the circadian rhythm, which is the body's internal clock that controls when we feel awake and when we feel sleepy. Diekelmann & Born, (2010) conducted Sleep quality is significantly influenced by sleep duration. In the US, low sleep duration is common (<9 hours for kids aged 6 to 12; <8 hours for youths aged 13 to 18; and <7 hours for adults aged 18 to 60). In a recent study, sleep length was examined in university students from 26 low-, middle-, and high-income nations. The prevalence of sleep durations of 6 to 8 and 9 hours was found to be 39.2, 46.9, and 13.9%, respectively. The major characteristics of poor sleep quality are morning fatigue in addition to the loss of sleep duration, and issues with sleep initiation and maintenance, which are components of sleep continuity (Wang & Biro 2021). A variety of sleep-related problems that can be detrimental to a person's physical and mental health are referred to as unhealthy sleep.

Many criteria can be used to describe healthy sleeping patterns. For instance, Ridgeway (2005) defined "sleep habits" as "self - rated contentment with sleep, " "sleeping during the day, " "difficulty sleeping at night, " and "oversleeping. "Stress is a physiological and psychological reaction to an imagined or real threat or challenge. QOL of University students experience this stress quite strongly, and the pressure to perform academically can result in the formation of bad behaviours (Britz, 2010).

The goal is to create a well - being measure that effectively captures students' Quality of Life, rather than an overall QOL assessment of college students. There was no research found in the literature that created a valid well - being measure focusing on students' Quality of Campus Life. The investigation to establish a QCL measure is also motivated by practical issues, specifically how university administrators might use this measure and its data to improve the QCL of their student population. This practical viewpoint has influenced us in developing the QCL conceptual model shown below (Sirgy et al., 2007). Every person wants to live a good life, which is defined as living up to their objectives, expectations, standards, and worries. Although getting enough sleep and exercising regularly are essential components of healthy behaviour for all people, many research has shown a connection between "unhealthy sleep patterns" and worse cognitive function. (Megan et al., 2010). A healthy lifestyle is inextricably linked to a high quality of life (Gochman, 1997, p.3). Based on these findings the Quality of Life and Sleep quality are essential for physical education students. They need more amount of rest after physical activity. Over time, exercise encourages improved emotion control, which in turn improves sleep quality (Semplonius & Willoughby, 2018). It is helping the recovery of activated muscles and tissue regeneration. They help to improve students' physical health and well - being, as well as their academic performance and overall quality of life. The present study aimsto investigate the Quality of Life and Sleep quality between the physical education and non - physical education students at Pondicherry University.

2. Method

2.1 Participants

A hundred participants (both male and female) were selected for the study from Pondicherry University, 50 students from physical education and 50 from other departments. Quota sampling methods were used for the selection of the subject. Quality of life questionnaire WHOQOL - BREF (WHO 1996) and Groninger sleep quality questionnaire (Leppamak et al., 2003) were used as a tool. The entire subject participated and responded to the questionnaire without bias. From the total data, 62% of males and 38% of females were collected. The age group of the selected subject ranged from 18 to 38 years. The selected students are from the academic year 2021 to 2023.

2.2 Tools

The requirement for the collection of data through the administration of two questionnaires was explained to the subject to avoid any ambiguity regarding the effort required

on their part and before the administration of the questionnaire. The entire subject participated and responded to the questionnaire without bias. The questionnaire used for the quality of life was WHOQOL - BREF (WHO 1996). The WHOQOL - Bref produces a profile with four domain scores and two individually scored items about an individual's overall perception of quality of life and health. For the assessment of sleep quality used Groninger sleep quality questionnaire (Leppamak et al., 2003). This questionnaire is a 15 - item list of sleep complaints that gives a global score of sleep quality ranging from 0 to 14, with the maximum indicating poor sleep quality (Mejiman et al., 1988). The first question doesn't count toward the total score. One point if the answer is "True" for questions 2, 3, 4, 5, 6, 7, 9, 11, 13, 14, 15 one point if the answer is "False" for questions 8, 10, 12.

2.3 Data Analysis

SPSS statistical software was used to conduct all statistical analyses of the data assessed in this study. A significant level of $p < 0.05$ was set for all statistical analyses. To determine the level of quality of life and sleep independent sample T - test is used. The present study was formulated to determine the changes in quality of life and sleep among the students of physical education and non - physical education students. The mean, standard deviation, and mean differences, of students between the physical education students and non - physical education were tested by the 'p - value to find the significance of the data.

3. Result

According to the independent sample t - test results, the mean quality of life of non - physical education students is 87.460, whereas physical education students have a quality of life of 90.200. The computed p - value of quality of life for physical education students and non - physical education students - .309 is above than.05 significant threshold. This means that there is no statistically significant difference between the two groups of students.

Table 1: Participants' Quality of Life

Students	Number	Mean	SD	P value
Non - physical education	50	87.460	14.86840	.309
Physical education	50	90.200	11.7456	.309

According to Table 2's independent sample t - test results, students in physical education slept an average of 5.36 hours each night compared to 5.86 hours for students in non - physical education. For both physical education students and non - physical education students, the computed "p - value of sleep" is.476, which is greater than.05 significant levels. The overall amount of sleep that Pondicherry University students get has not changed significantly.

Table 2: Participants Sleep

Students	Number	Mean	P value
Non - physical education	50	5.86	.476
Physical education	50	5.36	.476

According to the results of the independent sample t - test in Table 3, the mean sleep of the male physical education

students is 4.68 and the mean sleep of non - physical education is 5.73. There was no significant change in the amount of sleep that male students got because the calculated 'p - value of sleep for the physical education students and non - physical education students - .192 is greater than a.05 significant threshold.

Table 3: Sleep of male participants

Students	Number	Mean	SD	P value
Non - physical education	25	4.68	3.010	.192
Physical Education	37	5.73	3.115	.192

Based on the independent sample t - test results, the average amount of sleep for females who do not participate in physical education is 7.04 hours. The percentage of female physical education students is 4.31. The calculated p - value of sleep for female students of physical education and non - students of physical education is less than the.05 significance level. Thus, there has been a significant change in the slumber habits of female students.

Table 4: Sleep of female participants

Students	Number	Mean	SD	P value
Non - Physical Education	25	7.04	4.315	.046
Physical Education	13	4.31	2.780	.046

According to the results of the table 5 independent sample t - test, the mean quality of life of non - physical education students male is 92.400, while that of physical education students males is 91.162. The computed 'p - value for quality of life for physical education students and non - physical education students is greater than 0.05 significant levels.

Table 5: Quality of life male participants

Students	Number	Mean	P value
Non - physical education	25	92.400	.688
Physical education	37	91.162	.688

According to the independent sample t - test results in table 6, the mean sleep of other student males is 4.68 and that of physical education student males is 5.73. The computed 'p - value of sleep for physical education students and non - physical education students - .192 is greater than.05 at a significant level.

Table 6: Sleep of male participants

Students	Number	Mean	P value
Non - physical education	25	4.68	.192
Physical education	37	5.73	.192

4. Discussion

The independent sample t - test was used to determine whether there is a significant difference between the two groups. According to this study, the mean quality of life for Pondicherry University's non - physical education students is 87.460, while the mean quality of life for those who study physical education is 90.200. The computed p - value for the difference in quality of life between pupils who took physical education and those who did not is 0.309. A p - value larger than 0.05 implies that the results are not statistically significant because the significance level (0.05) is typically set at this number. The p - value of 0.309 in this

instance is in fact greater than 0.05, indicating that there is no statistically significant difference between the two groups of Pondicherry University students' quality of life. This suggests that rather than representing a significant distinction, the observed difference in the mean quality of life between physical education students and non - physical education students may just be the result of random chance. We can therefore conclude from this research that there are no appreciable differences in the quality of life between physical education and non - physical education students at Pondicherry University. The quality of life may be influenced by other elements or variables that were not taken into account in this study, thus it's crucial to keep in mind that this result is simply based on the statistical analysis and the data that are currently available.

The mean sleep for students in physical education is 5.36 while the mean sleep for students in non - physical education is 5.86. Sleep's computed 'p - value between physical education students and non - physical education students is.476, which is greater than.05 significant levels. According to the findings of an independent sample t - test, the mean sleep of male students in physical education was 5.73 and that of non - physical education students was 4.68. Sleep's computed 'p - value for physical education students and non - physical education students is.192, which is more significant than.05 levels. The results of an independent sample t - test, however, show that female students in physical education at Pondicherry University have better sleep quality when compared to those who did not take physical education.

Ibrahim et al. (2013) conducted a study on social support impacts the quality of life and depressive symptoms of university students. In 33.0% of the cases, depression was present, which is close to the percentages found in past investigations. Quality of life is a broad concept that considers both good and bad aspects of psychological, social, environmental, and physical health (Zhang et al., 2012). As a result, the current study's objective was to comprehend and assess the degree of quality of life for a group of Rio de Janeiro - based physical education students. As a result, there were levels of 91% functional capacity, 74% physical and emotional functioning, 57% mental functioning, 52% vitality, 47% overall health, 24% discomfort, and 2% social functioning (Triani et al., 2019).

According to the study's findings, both physical education and non - physical education students at Pondicherry University report similar levels of happiness and satisfaction with their sleep. Students majoring in physical education may have a tendency to report a higher quality of life, as seen by a slightly higher mean QOL, but this difference is not statistically significant ($p = 0.309$). Females who take part in physical education, on the other hand, tend to get better sleep than their counterparts who don't.

5. Conclusion

This study compares Pondicherry University's physical education and non - physical students' quality of life and sleep. Other things may affect Pondicherry University students' quality of life. Thus, while this study reveals no substantial difference amongst students, further research and

evaluation of other aspects may be needed to better understand the problem. The results show that Pondicherry University physical education students and non - physical education students had similar quality of life and sleep. Female physical education students sleep better. More sleep.

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