

## ORIGINAL ARTICLE

## Association Of Physical Activity with Quality of Life Among University Students

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### Abstract

**Objective:** This research aimed to examine the relationship between physical Activity and Health and the well-being of quality of life (QOL) across university students.

**Study Design:** Cross-sectional study.

**Setting:** Data was gathered from various University students.

**Methodology:** This is a cross-sectional study. After taking consent and IRB from UOL, this study was conducted at 112 universities. To evaluate the physical activity levels, IPAQ and WHOQOL-BREF were applied, and the Chi-square test was applied for the Association.

**Results:** In this current study total of 112 participants participated with a mean age of 22.61. In this study, 33 (29.5%) males and 79 (70.5%) females participated for the study. Out of 112 36.6% (n=41) low, 25.0% (n=28) moderate and 38.4(n=43) high physical activity level. There is a significant association between physical activity and health-related quality of life in the Physical Health and Social relationships as the P-value < 0.008 and 0.007 of the Domains. However, there was no significant association between Psychological Health and Environment as the domains' P-values > 0.379 and 0.344.

**Conclusion:** The finding of this study concluded that the Association between HR QoL and physical activity level confirmed that physical Health and social Relationship are significant, but environmental and psychological health is not significant.

**Key Words:** Health-related QoL, Physical Activity Level, University Students

### Introduction

Physical activity is associated with favourable health indicators, which help to reduce the risk of various contagious diseases.

It is clear that anxiety, stress & sorrow is relieved by physical activity; eventually, it will improve mood, cognition & quality of life.<sup>1</sup>

Student in health science had a population & physical health disturbance due to the anxiety of their educational conditions.<sup>2</sup> Quality of Life & general health-

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enhancing by physical activity.<sup>3</sup> QoL is a multifaceted structure that covers mental, physical, social, and environmental matters.<sup>4</sup>

Numerous somatic and emotional health advantages may be obtained when youngsters engage in 60 minutes of modest regular exercise daily.<sup>5</sup> A balanced lifestyle, consisting of dietary practices, physical activity (PA), and screen time (ST), is a crucial aspect of well-being.<sup>6</sup> A challenging environment that endangers medical graduates' mental and physical well-being has already demonstrated its value.<sup>7</sup> The World Health Organization has defined the quality of life of QoL as the assessment of a man's position in the life of his/her culture, values, objectives, expectations, and difficulties.<sup>8</sup> The Quality of life linked to Health (HRQOL) has increasingly been utilized to evaluate physical and community work, mental health and well-being in offspring and adult individuals, and the assessment of population-based interventions.<sup>9</sup>

It is, therefore, crucial to improving the levels of physical activity (PALs). Therefore, the optimal techniques to do this are unknown, and additional research is necessary to assess the success of existing projects. A comprehensive understanding of the psychological and environmental obstacles to promoting physical activity is likely to lead to physical activity initiatives. According to the 2008 Physical Activity Guidelines of the U.S. Department of Health and Human Services, adults derive significant advantages from two and a half hours each week of moderate or vigorous aerobic activity, approximately 75 minutes each week of vigorous-intensity exercise, or an

equitable mix of moderate-to-vigorous intensity exercise.<sup>10</sup>

Past investigations have shown that an enormous amount of physical activity PA in infancy and adolescence predicts high physical activity in adulthood. However, most research has shown that physical activity among teenagers decreases.<sup>11</sup> There are four cardinal settings in which people can be active physically. These settings include employment, travel, hiking, cycling, home and leisure, sports, and other fun. Physical fitness has a significant influence on well-being and quality of life.<sup>12</sup>

A variety of social, psychological, and bodily effects arise from participation in various physical activities. The regular exercise involves a variety of good psychological benefits, such as lowering depressive symptoms, decreasing anxiety, improving self-esteem, improving response speed, and better self-perception.<sup>12</sup> Evidence shows that comprehensive and frequent healthcare counselling can improve patients' physical activity. Due to their constant interaction with patients, PCAs are more likely to boost their patient's levels of physical activity than physicians from other specialties.<sup>13</sup>

Depending on gender and physical activity, this connection differs. Found that both PA and QoL were more excellent with sports faculty students. Different faculties' students must be urged to participate in every sport during their leisure time to boost their physical fitness.<sup>14</sup> Inactive and registered athletes in mid-adolescence and occasionally in late adolescence, the positive impact of physical activities on physical well-being was obtained.<sup>15</sup> This research aims to

examine the Association between physical activity and four domains (Physical Health, Psychological Health, Social Relationship, and Environment) of health-related quality of life among college students.

### Material & methods

A cross-sectional study is started after taking consent and IRB from UOL under number 894. Cross-sectional research was carried out on people (either gender) over the age of 17 who had no mental or physical illness. The study excluded

### Results

Out of the 112 students, male students were 33(29.5%), and females were 79(70.5%). The student's mean age was  $22.61 \pm 2.149$  years, with minimum and maximum ages of 18 and 33. The Physical activity level from low to high is, respectively, 41(36.6%), 28(25.0%), and 43(38.4). 11(33.3%) males and 30(38.0%) females had Low Physical activity levels, 6(18.2%) males and 22(27.8%) females had Moderate Physical Activity Levels, and 16(48.5%) and 27(34.2%) having High Physical activity level. None of the dominos were distributed, so that a non-parametric test will be applied for further analysis. As per activity level (low, moderate, high), a significant difference was seen for each domain with a p-value  $<0.000$ . The Association between physical activity and health-related quality of was significant in the Physical Health and Social relationships as the P-value  $< 0.008$  and  $0.007$  of the Domains. Nevertheless, there was no significant association between Psychological Health and

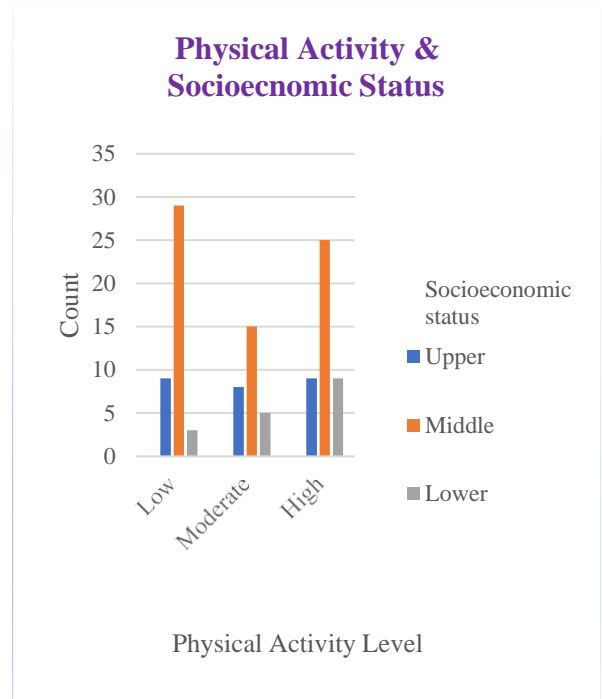
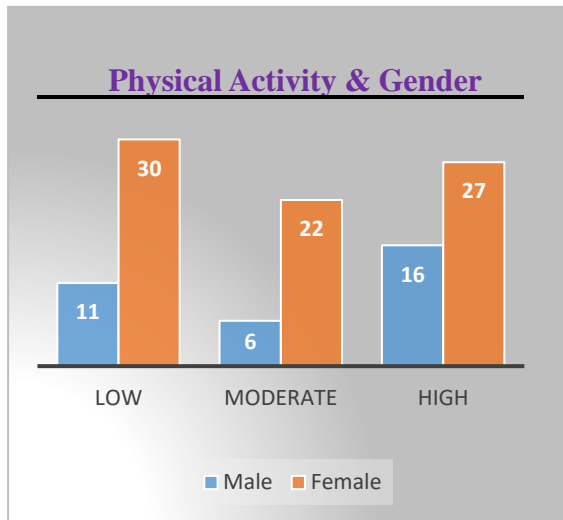
people with other mental diseases, ongoing cancers, significantly lower/upper motor According to epitoool, the size of the sample was 112.<sup>11</sup>. The approach of purposive sampling was used. Data was gathered using a questionnaire containing demographic information and two tools: The world health organization Quality of life (WHOQOL) –BREF and International Physical Activity Questionnaire (IPAQ) - Short Form. WHOQOL measures Domains of Quality of life, and IPAQ measures the Physical Activity level.

Environment as the domains' P- values  $> 0.379$  and  $0.344$ .

**Table -1: Demographic Statics of Physical Activity Level and Gender**

		Gender		Total	
		Male	Female		
Physical Activity Level	<b>Low</b>	Count	11	30	41
		%	33.3%	38.0%	36.6%
		Within Gender	_____		
	<b>Moderate</b>	Count	6	22	28
		%	18.2%	27.8%	25.0%
		Within Gender	_____		
	<b>High</b>	Count	16	27	43
		%	48.5%	34.2%	38.4%
		Within Gender	_____		
<b>Total</b>	Count	33	79	112	
	%	100.0%	100.0%	100.0%	
	Within Gender	_____			

**Figure 1: Physical Activity and Gender**



**Table -2: Chi-square test of Physical Activity Level and QoL (Chi-Square)**

Sr #	Association of physical activity level with HR-QoL	Domain Value	Df	P-Value
1	Physical Activity Level & Physical Health domain	82.311	54	.008
2	Physical Activity Level & Psychological Health Domain	62.750	60	.379
3	Physical Activity Level & Social Relationship Domain	68.049	42	.007
4	Physical Activity Level & Environment Domain	55.506	52	.344

## Discussion

This cross-sectional research includes a descriptive case series of 112 university students from Pakistan. Researchers in the past looked at the physical activity and quality of life (QoL) of students at the college of health sciences and in different

departments to see if physical activity improved QoL.<sup>16</sup>

In the current study, out of four domains of quality of life (Physical and social relations are significant Association as the p-value <0.05 while psychological health and the environment were not significantly associated as the p-value>0.05) were observed in each participant with the reference of physical activity level. Gender-associated physical activity level was also noticed. However, they found that students in the athletics department seemed more proactive than in other disciplines and significantly improved their QoL metrics.

Comparisons were found to show a significant association between QoL and physical activity among university students (p-value<0.001). Thus, physical exercise is shown to be related to the quality of life. Guner Cicek's similar study among Turkish university students

indicated that physical exercise and quality of life have a good link. Turkish study evaluated all the domains of quality of life, and physical activity showed favourable links. However, our study Association between HR-QoL and physical activity level confirmed that physical Health and social Relationship are significant. However, environment and psychological health are not significant.

Another research by Jaroslav Bro Tamilani examines the correlations between physical exercise and adolescents' quality of life.<sup>17</sup> It determined that very low or significantly higher levels of physical activity per week influenced the individual aspects of the QoL of students in mid- to senior adolescence. Regular physical activity benefits life's reliability, even in small amounts. SQUALA was employed in this study to measure the participants' quality of life. However, WHOQL utilized this study to evaluate the quality of life and found the difference between males' and females' physical activity levels. That was more females who participated in Low and Moderate physical activities and, on the other hand, males with High physical activity levels.

According to research, grandparents, parents, and students all engaged in comparable amounts of physical activity and health-related behaviours. The number of people who are physically active now and, in the past, has decreased with age. Compared to their parent's and grandparents' generations, the students reported participating in physical activity more frequently in the past and the present. There was only a trend in the number of people who reported receiving rehabilitation therapy in the past and present and visiting sanatoriums.<sup>18</sup>

The quality of life in all areas was substantially better among the other students than those residing in the dormitories. According to this result, students who stay at home have a more outstanding quality of life. It is possible that the students who stay in the dorms are less satisfied than those who live there; thus, it is essential to look at the dorm's circumstances.<sup>19</sup>

It was discovered among university students that the QoL also rose with the growth in physical activity values, and there was a positive link. The gender and PA levels show that more females participated in Low and Moderate physical activities and, on the other hand, males with High physical activity levels. Physical exercise has been shown to have a significant effect on the physical health of university students. Students from every department should be encouraged to play any sport they want in their free time to get more exercise.

## Conclusion

Physical well-being and social relationships are crucial, while environmental and psychosocial factors are not. The Association between activity level and healthcare quality of life has been verified.

### **Author Contributions**

Conception and design: [Waqar-Ul-Hassan](#)

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Analysis and interpretation of the data: [Qurat-Ul-Ain](#)

Drafting of the article: [Arsh-e-Mah Nawaz](#)

Critical revision of article for intellectual content: [Qurat-Ul-Ain](#)

Statistical expertise: [Waqar-Ul-Hassan](#)

Final approval and guarantor of the article: [Arsh-e-Mah Nawaz](#)

Conflict of Interest: [None declared](#)



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