

ASSOCIATION LEVEL OF PHYSICAL ACTIVITY AND QUALITY OF LIFE AMONG YOUNG ADULTS: A CROSS-SECTIONAL STUDY

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Abstract

Background: It is vital to engage in physical exercises to enhance and maintain physical and mental health and increase the quality of life. However, the issue of not exercising is growing among the young adults, due to stress in schools and urbanization. This paper will examine the physical activity and its relationship with quality of life among healthy young adults in Sialkot.

Objective: To evaluate physical activity levels among healthy young adults in Sialkot, assess their quality of life, and examine the relationship between physical activity and quality of life.

Methods: A cross-sectional observational study was conducted on 323 young adults in Sialkot (18–30 years) using a non-probability convenience sampling. GPAQ and WHOQOL-BREF were used to measure physical activity and quality of life respectively. The SPSS version 26 was used to apply descriptive statistics and Pearson correlation.

Results: The Correlation analysis of the study showed that there was significantly positive relationship between GPAQ Total and Social Total ($r = .120$, $p = .030$) and that there was strong positive relationship among domains (Physical, Psychological, Social and environmental) of quality of life (at $p < 0.01$).

Conclusion: The research concluded that the physical activity and social domain of quality of life had significant positive relationships, and physical, psychological, social, and environmental domains had significant positive relationships. These results indicate that routine exercise positively affects the general well-being and, therefore, plays a crucial role in supporting the well-being and health.

INTRODUCTION

Physical activity is explained as any form of movement in the body that is a consequence of skeletal muscles and is known to consume energy and incorporates activities that are performed during work, play, household duties, transportation, and recreational activities [1]. Regular workouts are crucial as they are important in overall health as they

make one stronger muscle, boosting cardiovascular fitness, increasing flexibility, as well as improving mind well-being. In addition to the physical good, it ensures emotional stability and leads drastically to a better living standard. The stage of young adulthood is a crucial stage forming lifetime healthy behaviors, and the exercise is especially crucial. during this stage

of life [2]. Moderate physical activities taken on a regular basis have demonstrated enhancement of the quality of sleep, mood, and emotional control; consequently, increasing the general well-being among the physically active individuals [3]. Physical exercise has been evidenced to increase levels of satisfaction in these areas. Physical activity further enhances social engagement, as teams can work together, engage with each other in the community and entangle with peers, thus adding to emotional health [4]. Sedentary lifestyles, especially among the young adults, have increased in developing countries like Pakistan due to the rapid pace of urbanization and modernization in the country. The leading causes of inactivity are academic pressure, excessive screen time, and the insufficient support of physical activities in the institutions [5]. City barriers in terms of space and access to green spaces, air quality and insecure outdoor spaces also render fewer opportunities to exercise in cities like Sialkot [6]. It should be noted that participation among females is hampered by socio-cultural constraints existing only on a gender basis, which in turn causes health outcomes disparities [7]. Furthermore, one-quarter of adults in the world is physically inactive [8]. Regardless of the increased evidence in the world regarding the advantages of physical activity in enhancing quality of life, there have been minimal region-based information available. Gender inequalities are also caused by cultural stigmas toward physical exercise, particularly in conservative societies, where females are the most affected [9]. These barriers can be overcome by introducing gender-sensitive programs and inclusive areas to reduce the gap and enhance the overall welfare of the community. Community and peer-led interventions have expressed improvement in physical activity amongst young people [10]. Physical exercise plays a crucial role in health and mental health but this is not the case as many young adults are not exercising resulting in low quality of life. There is sparse evidence on this relationship. This research will evaluate the physical activity levels, quality of life, and its relationship with each other in young adults to come up with effective measures to promote active lifestyles and wellbeing.

Methodology

This observational cross-sectional research was carried on an aim to compare the level of physical activity and the quality of life within the Sialkot young adult population. The study conducted was on 323 participants in the age group 18 to 30 years and recruitment of participants was done by non-probability means of convenience sample in various parts of the city. The value derived in a 95 percent confidence, 5 percent margin of error and a 50 percent distribution of the response was used to calculate the sample size with the Raosoft calculator. The data was collected in a period of six months following the permission of the research committee. The participants of the study were both male and female. Those who were not engaged in regular gym routines, who were adherent to some program of exercise, permanent physical handicap which restricted physical activity per day were not included. The Global Physical Activity Questionnaire (GPAQ), which evaluated moderate and vigorous physical activity in the context of work and transportation, recreational activities and reported these activities in minutes per week of MET, was used to measure the amount of physical activity. The quality of life was assessed through WHOQOL-BREF questionnaire, which assesses physical, psychological well-being, social, and environment. Self-administered questionnaires were used to gather demographic data and the study-related information. All collected data were entered and analyzed using SPSS version 26. Descriptive statistics were used to summarize the data, while correlation tests were applied to determine the relationship between physical activity and quality of life. Ethical considerations were strictly followed throughout the study. Written informed consent was obtained from all participants, confidentiality of data was maintained, participation was voluntary, and participants were allowed to withdraw from the study at any time without any consequences.

Results

A total of 323 young adults participated in the study. Out of which 51.4% (166) were in between 22-26 years, 26.9% (87) were in 27-31 years while 21.7% were in 17-21 years of age.

Table 1 Age Distribution (years)

Age Group	Frequency (n)	Percentage (%)
17-21Yrs	70	21.7%
22-26Yrs	166	51.4%
27-31Yrs	87	26.9%

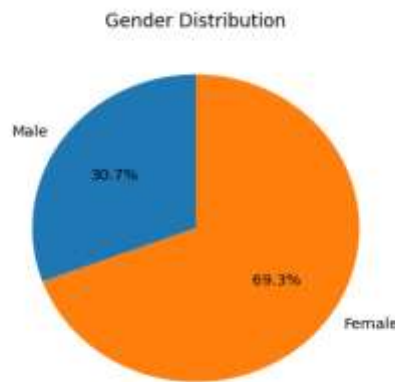


Figure 1 Gender Distribution

Figure 1. Shows the gender proportion among the participants, where 30.7 percent of the respondents (n=99) were male and 69.3 percent of the respondents (n=224) were female.

Table 2 Frequency of physical activity

Score Range	Frequency (n)	Percentage (%)	Interpretation
10-15	28	8.7	Low physical health
16-20	122	37.8	Moderate
21-25	110	34.1	Average
26-30	63	19.5	Above average
Total	323	100.0	

The majority of individuals had moderate physical health (37.8%), which was followed by medium (34.1%) and above-average (19.5%). Only a small

proportion (8.7%) reported low physical health, indicating that the majority of participants had satisfactory physical well-being.

Table 3 Frequency of psychology

Score Range	Frequency (n)	Percentage (%)	Interpretation
10-15	30	9.3	Low well-being
16-20	145	44.9	Moderate
21-25	125	38.7	Good
26-30	23	7.1	Very good

Nearly half of the individuals (44.9%) indicated moderate psychological well-being, while 38.7%

exhibited good levels. Participants' psychological state was generally favorable, as evidenced by the lesser

percentage of very excellent well-being (7.1%) and low psychological well-being (9.3%).

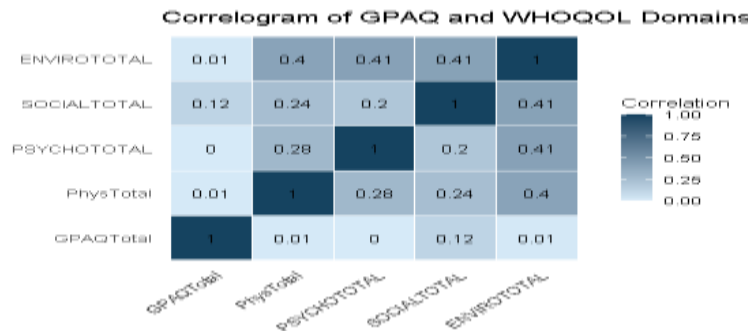


Figure 2 Pearson correlations among GPAQ total score and domain-specific physical activity scores

Pearson correlations among GPAQ total score and domain-specific physical activity scores (N = 323). The GPAQ total score showed no significant correlations with the physical, psychological, or environmental domains ($p > .05$), but it did show a modest but significant link with the social domain ($r = .12, p < .05$) according to Pearson correlation analysis. On the other hand, the domain-specific scores showed somewhat favorable associations. The psychological ($r = .28, p < .01$), social ($r = .24, p < .01$), and environmental ($r = .40, p < .01$) categories were all substantially correlated with physical activity. Furthermore, there was a moderate and positive correlation between the psychological, social, and environmental domains ($r_s = .20-.41, \text{all } p < .01$), suggesting that the psychosocial and environmental aspects of physical exercise are consistently associated.

Discussion:

The present study examined physical activity levels among healthy young adults in Sialkot and their relationship with quality of life. Respondents were selected in different towns in the city. Analysis of correlation revealed that there is a weak, yet significant, positive correlation between total physical activity (GPAQ score) and social domain of quality of life ($r = .12, p = .03$). All quality-of-life domains were also positively correlated with each other ($p < .01$). The average age of the respondents was 22.9 ± 3.1 years and this age bracket is more likely to engage in sedentary activities because of academic and high screen time. The results

demonstrate the relevance of physical activity in promoting the quality of life. These findings are

consistent with the research conducted by Mahin et al. that highlighted the importance of lifestyle choices in influencing the quality of life in university students including physical activity and diet [11]. Similarly, Granero-Jiménez et al. reported that increased physical activity in young adults is associated with improved psychological well-being and reduced depressive symptoms. The highest score of the present research was that between PA and the Social domain of QoL. This implies that routine PA supports socializing, peer relationships, and the formation of an interpersonal network [3]. This finding can be justified by Sui et al. (2024), who actually proved that social support and group-based PA programs run increase life satisfaction and advance social relationships among university students [12]

Cultural and gender-specific obstacles must also be taken into consideration in the case of these results. Begum (2023) highlighted that in conservative societies, women are limited by the social norms, lack of facilities, and safety during PA participation. This can also be aligned with our study context, whereby female participants were less active than males [13]. These obstacles indicate that PA promotion among young adults should include cultural sensitivity and gender equality in strategy-making. Although there were positive outcomes to this study, there are still considerable numbers of young adults who are sedentary in Sialkot. This is consistent with the WHO (2024) report, shown that

the likelihood of those not meeting the PA recommendations is 1 out of 4 adults in the global population, with young adults being especially vulnerable[8]. Various factors in Pakistan that promote inadequate PA include the high rate of urbanization, internet use, absence of professional sports programs, and gender-based inequality. This is a reminder of how necessary it is to come up with community- and institution-targeted interventions [14]

The implications of these findings are crucial to healthcare professionals, educators and policymakers. Future studies should focus on promoting well-structured PA programs in universities, integrating wellness modules into curricular programs, and providing equal access to safe and secure facilities to young adults, as this can have a significant positive impact on their QoL. According to Warburton & Bredin, PA should be used as the medication of choice because it helps treat various spheres of health, which need to be promoted as a part of a public health strategy [15].

Limitations:

Future research should involve subjects that represent a wider spread of ages besides young adults, to compare the results. The objective data, such as the health trackers or the pedometer, will result in more accurate data in comparison with self-reports. It should use longitudinal research designs to determine the long-term effects and the causes of PA on QoL.

Conclusions:

This study found that higher levels of physical exercise are associated with improved social well-being and are closely related to all areas of quality of life. These findings imply that exercise improves both general well-being and physical health. Young people's psychological well-being, life satisfaction, and general quality of life may all be improved by encouraging them to continue being physically active.

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