

Research Article

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Author for correspondence:

Edwin Gustavo Estrada-Araoz

 gestrada@unamad.edu.pe

 Universidad Nacional Amazónica de Madre de Dios, Perú

Perceived Barriers to Physical Activity in A Sample of University Students: A Descriptive Study

Edwin Gustavo Estrada-Araoz , Jhemy Quispe-Aquise , Guido Ayay-Arista , Gilber Chura-Quispe , Neil Anthony Quipo-Conde , Freddy Abel Rivera-Mamani , Maribel Mamani-Roque 

Abstract

Background/purpose. Regular physical activity is important for maintaining a healthy lifestyle and preventing various chronic diseases. However, despite its well-documented benefits, many people encounter multiple barriers to participating in it. The present research aimed to analyze the perceived barriers to physical activity in a sample of Peruvian university students.

Materials/methods. To achieve this, a quantitative, non-experimental, descriptive, and cross-sectional study was conducted with a sample of 239 students of both sexes, who were administered the Barriers to Being Active Quiz (BBAQ), an instrument with adequate metric properties.

Results. It was found that the mean of the perceived barriers to physical activity was 29.12 (SD = 11.517), which, when compared to the possible maximum and minimum values, was categorized at a moderate level. Additionally, the main barriers identified were lack of energy (M = 4.80, SD = 2.280), lack of resources (M = 4.54, SD = 1.985), and lack of time (M = 4.50, SD = 1.951). On the other hand, it was observed that women and people who were not employed perceived more barriers to engaging in physical activity compared to men and those who were employed, respectively.

Conclusion. It was concluded that the perceived barriers to physical activity were categorized at a moderate level, highlighting lack of energy, lack of resources, and lack of time as the main factors. Therefore, it is recommended that institutional strategies such as sports spaces, accessible programs, awareness campaigns, stress management workshops, and partnerships with sports centers be implemented to promote student well-being.



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1. Introduction

Currently, physical activity is considered a key component for maintaining a healthy physical and mental lifestyle (Dhuli et al., 2022). It is defined as any bodily movement that requires energy expenditure and can include everyday activities such as walking or climbing stairs, as well as more structured sports and exercises (Caspersen et al., 1985). In the university stage, engaging in physical activity plays a fundamental role, not only due to its health benefits but also because it helps students face the challenges typical of this period (Teuber et al., 2024).

As is known, university life represents a stage of significant changes and challenges for young people (Paricahua et al., 2024). Upon entering university, many students must adapt to an unfamiliar environment, which includes not only a heavier academic load but also the need to assume new personal responsibilities, such as managing their time and organising their daily activities (Duche et al., 2020). In many cases, this adaptation process involves learning to balance multiple demands, such as studying, working, and social relationships, which can have a significant impact on their lifestyle habits (Chen et al., 2023). Among these, physical activity is often relegated to a secondary position, whether due to lack of time, energy, or motivation, resulting in a more sedentary lifestyle (Wu et al., 2023).

The benefits of physical activity are numerous and encompass various areas of health. Physically, regular exercise strengthens the cardiovascular system, improves lung function, increases muscle strength and endurance, and helps maintain a healthy body weight (Dhuli et al., 2022). Additionally, it prevents the development of chronic diseases such as hypertension, type 2 diabetes, and cardiovascular issues (Saqib et al., 2020). Mentally, physical activity has extremely positive effects on reducing stress, anxiety, and depression, conditions that are particularly common among university students (Schuch & Vancampfort, 2021). During physical exercise, the body releases endorphins, which are hormones that create a sense of well-being and relief (Mahindru et al., 2023). Furthermore, physical activity enhances concentration and academic performance by promoting greater oxygenation of the brain and facilitating cognitive processes (Di Liegro et al., 2019).

Despite the recognised benefits that physical activity has for health, a considerable number of young people do not achieve the minimum recommended levels of physical activity (Wilson et al., 2023). A recent study examined 507 surveys across 163 countries and found that the age-standardised global prevalence of insufficient physical activity was 31.3% (Strain et al., 2024). Among the most investigated reasons behind this low participation, the perception of barriers stands out, acting as obstacles that limit students' ability to stay physically active (Sevil et al., 2017).

This research is relevant because it addresses a critical issue in the university population. During the university stage, young people face a series of significant changes in their lives, which can hinder the incorporation of physical activity into their daily routines. Identifying and understanding the barriers that limit participation in exercise is essential, as it will allow for the design of strategies more tailored to students' needs, thereby promoting healthy habits that benefit not only their physical well-being but also contribute to their mental and emotional health. By addressing this topic, the research aims to reduce the risks associated with inactivity and improve the quality of life of university students, empowering them to adopt a more active and balanced lifestyle.

The research question was: What are the perceived barriers to physical activity in a sample of Peruvian university students? Finally, the objective was to analyze the perceived barriers to physical activity in a sample of Peruvian university students.

2. Literature Review

In Peru, various studies have been conducted to assess the level of physical inactivity and sedentarism, which have reported a low level of physical activity and a high prevalence of sedentarism among adolescents and the adult population. This increases the risk of developing non-communicable chronic diseases such as diabetes, hypertension, and cardiovascular diseases, especially in these age groups (Acosta & Corvetto, 2024; Vargas et al., 2023; Mamani et al., 2023). The Ministry of Health of Peru (2023) has also corroborated this trend, reporting that only 26% of the adult population engages in physical activity according to international recommendations. This figure indicates that more than 70% of the adult population is at risk of developing conditions associated with sedentarism, such as overweight, obesity, and metabolic diseases.

Among the factors contributing to the described low level of physical activity are the various perceived barriers that people constantly face. Perceived barriers can be defined as obstacles or limitations that individuals identify as interferences to engaging in physical activity (Reyes et al., 2023). These barriers do not necessarily represent absolute impediments but rather personal interpretations of what hinders participation in physical activities (Blanco et al., 2019). In fact, in many cases, barriers are subjective and can vary considerably among individuals based on their experiences, expectations, and personal circumstances (Franco et al., 2022).

In the context of higher education, perceived barriers become relevant due to the drastic lifestyle changes faced by university students (Paricahua et al., 2023). The increase in academic responsibilities, the adaptation to new social dynamics, and time management are factors that influence students' perceptions of their ability to incorporate exercise into their daily routines (Estrada, 2024). In the case of nursing students, these barriers may be even more pronounced due to the specific demands of their training. The intensive academic workload, long hours of clinical practice, and the emotional pressure associated with patient care can hinder the adoption of healthy habits, including physical exercise (Cruz et al., 2024). Additionally, shift rotations in hospitals and health centers can lead to greater feelings of fatigue and reduce the time available for physical activity, contributing to a more sedentary lifestyle compared to students in other disciplines (Ramos et al., 2024).

The perceived barriers to physical activity can be classified into seven specific categories that reflect the main obstacles faced by university students (Rubio et al., 2015):

Lack of time: Many students feel that their academic schedules and other responsibilities, such as work, extracurricular activities, or family commitments, take up a large part of their day, leaving them little or no time for physical activity (Deliens et al., 2015).

Social influence: The social environment can also significantly impact. A lack of support from friends or family, or social pressure to prioritise other activities, can discourage students from engaging in physical activities (Duffey et al., 2021).

Lack of energy: Academic demands, along with other commitments, can lead to physical and mental fatigue, reducing motivation and willingness to engage in physical activity (Ferreira et al., 2022). Many students feel exhausted at the end of the day, diminishing their readiness to exercise.

Lack of willpower: Some students do not have sufficient internal motivation to remain physically active (Estrada et al., 2024). This may be related to a lack of interest or previous physical activity habits.

Fear of injury: The fear of sustaining physical injuries during exercise can be a significant barrier, especially for those with no prior experience or those who have suffered injuries in the past (Herazo et al., 2017).

Lack of skills: Feeling incapable of correctly performing certain physical activities or lacking the necessary skills can create insecurity and demotivation in students, leading them to avoid exercising (Dodd et al., 2024).

Lack of resources: The lack of access to adequate sports facilities, equipment, or even physical activity programmes in the university environment can be a major obstacle (Kruszyńska & Poczta, 2020). The perception of not having the necessary resources can limit their participation in physical activities.

Perceived barriers directly affect students' participation in physical activity, reducing the likelihood that they will incorporate exercise into their daily routine (Koh et al., 2022). Research has shown that those who perceive more barriers tend to be less active, contributing to a more sedentary lifestyle (Brown et al., 2024). This lack of physical activity can have long-term consequences, not only on students' physical health but also on their mental and emotional well-being (Li et al., 2022).

There are studies conducted in different regions that focused on assessing the main barriers affecting university students' participation in physical activities. For example, in Ecuador, Bobo et al. (2024) determined that the main barriers were lack of time, energy, and resources. Similarly, in Colombia, Rubio et al. (2023) found that lack of time and lack of willpower were the most relevant perceived barriers. On the other hand, in Jordan, Alkhalwaldeh et al. (2024) found that students perceived the main barriers to exercising as the lack of nearby locations, unsuitable hours of facilities, and the distance to exercise spaces. These studies indicate that, although barriers may vary depending on the context, there are common elements that affect university students, such as time, energy, and resources, highlighting the importance of continuing research in specific contexts like the Peruvian case.

3. Research design and methods

This study adopted a quantitative approach with a non-experimental, descriptive, and cross-sectional design.

The sample consisted of 239 students enrolled in the 2024-II semester at a public university in Peru, selected through probabilistic sampling with a 95% confidence level and a 5% significance level. Table 1 shows that, of the total participants, 71.5% were women and 28.5% were men. In terms of age, 82.8% were between 16 and 24 years old, while 17.2% were over 24 years old. Regarding employment status, 52.3% were not working, and 47.7% were employed. In relation to marital status, 80.3% did not have a stable partner, while 19.7% did.

Table 1. Sociodemographic Characteristics of the Sample

Variables	Categories	n= 239	%
Sex	Male	171	28.5
	Female	68	71.5
Age	Between 16 and 24 years	198	82.8
	Over 24 years	41	17.2
Employment status	Works	114	47.7
	Does not work	125	52.3
Marital status	In a stable relationship	47	19.7
	Without a stable relationship	192	80.3

Regarding the data collection instruments, a structured digital form was employed through the Google Forms platform. In the first section, students were asked to provide sociodemographic information, including aspects such as sex, age, employment status, and marital status.

In the second section, the Barriers to Being Active Quiz (BBAQ) was administered, which assesses the perceived barriers individuals face in participating in physical activities. It consists of 21 items, distributed on a Likert scale ranging from 0 (very unlikely) to 3 (very likely). These items are grouped into 7 dimensions: lack of time, social influence, lack of energy, lack of willpower, fear of injury, lack of skill, and lack of resources. Each of these dimensions includes three specific items, allowing for a detailed assessment of the factors affecting participation in physical activities. The metric properties of the scale were evaluated in a previous study conducted by Rubio et al. (2015), which demonstrated that the instrument had adequate internal consistency ($\alpha = 0.812$).

A structured procedure was followed to carry out data collection. First, approval was obtained from university authorities to conduct the research. Subsequently, students were invited to participate via a message on the WhatsApp messaging platform. This message included a link to the survey, a clear explanation of the study's purpose, and the necessary instructions to complete the questions appropriately. Once the participation of the required 239 students was achieved, access to the survey was disabled to conclude data collection.

Statistical analysis was performed using descriptive and inferential statistical techniques. First, descriptive statistics (mean, standard deviation, skewness, and kurtosis) and correlations between the studied variables and dimensions were calculated. Subsequently, the Student's t-test was used to identify statistically significant differences in the perception of barriers to physical activity based on the previously mentioned demographic variables. A significance level of $p < 0.05$ was adopted to determine the statistical relevance of the results. Additionally, Cohen's *d* was calculated to evaluate the effect size of the observed differences. Finally, the items were examined to gain a more detailed understanding of the response patterns of the participants.

This research was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Students were provided with clear and understandable information about the objectives and characteristics of the study, ensuring that their participation was entirely voluntary. Their right to withdraw from the process at any time without repercussions was also guaranteed. To protect the privacy of the participants, strict confidentiality measures were implemented, ensuring that the collected data were handled anonymously and securely, thus maintaining the integrity of the information throughout the process.

4. Results

Table 2 shows that the mean of the perceived barriers to physical activity variable was 29.12 (SD = 11.517), which, when compared to the possible maximum and minimum values, can be categorized as a medium level. When analyzing the dimensions, it was identified that the main perceived barriers were lack of energy (M = 4.80, SD = 2.280), lack of resources (M = 4.54, SD = 1.985), and lack of time (M = 4.50, SD = 1.951). Additionally, it is noted that the skewness and kurtosis coefficients are within the ± 2 range, indicating that the data distribution approaches normality (Gravetter & Wallnau, 2014). Finally, using Pearson's correlation coefficient *r*, a direct and highly significant correlation was found between perceived barriers to physical activity and the dimensions of lack of time ($r = 0.788$, $p < 0.01$), social influence ($r = 0.862$, $p < 0.01$), lack of energy ($r = 0.801$, $p < 0.01$), lack of willpower ($r = 0.803$, $p < 0.01$), fear of injury ($r = 0.706$, $p < 0.01$), lack of skill ($r = 0.794$, $p < 0.01$), and lack of resources ($r = 0.743$, $p < 0.01$).

Table 2. Descriptive Results of the Variable and Dimensions

	M	SD	Skewness	Kurtosis	PB	LT	SI	LE	LW	FI	LS	LR
PB	29.12	11.517	0.084	0.553	1	-	-	-	-	-	-	-
LT	4.50	1.951	-0.210	-0.012	0,788**	1	-	-	-	-	-	-
SI	4.26	2.036	0.102	-0.144	0,862**	0,651**	1	-	-	-	-	-
LE	4.80	2.280	-0.124	-0.398	0,801**	0,692**	0,677**	1	-	-	-	-
LW	4.44	2.071	-0.175	-0.244	0,803**	0,541**	0,636**	0,652**	1	-	-	-
FI	3.04	2.038	0.579	0.291	0,706**	0,426**	0,543**	0,353**	0,456**	1	-	-
LS	3.54	2.291	0.177	-0.542	0,794**	0,510**	0,659**	0,491**	0,586**	0,623**	1	-
LR	4.54	1.985	-0.084	-0.020	0,743**	0,536**	0,577**	0,513**	0,540**	0,496**	0,462**	1

** $p < 0.01$

Note: PB = Perceived Barriers; LT = Lack of Time; SI = Social Influence; LE = Lack of Energy; LW = Lack of Willpower; FI = Fear of Injury; LS = Lack of Skill; LR = Lack of Resources

In Table 3, the descriptive results of the items that make up the Barriers to Being Active Quiz (BBAQ) scale are presented and organized into seven dimensions. In the dimension of lack of time, the main barrier was "my day is so busy now that I don't think I can find time to engage in physical activity in my normal schedule" (M = 1.70, SD = 0.762). Regarding the dimension of social influence, the primary barrier was "my usual social activities with family and friends do not include physical activities" (M = 1.52, SD = 0.907). For the dimension of lack of energy, the main barrier was "I am too tired after university to exercise" (M = 1.67, SD = 0.919). In the dimension of lack of willpower, the most notable barrier was "I have been thinking about starting to exercise, but I haven't been able to take the first step" (M = 1.66, SD = 0.995). For the dimension of fear of injury, the highest-rated barrier was "I know many people who have gotten injured because they exercised too much" (M = 1.17, SD = 0.878). In the dimension of lack of skill, the most relevant barrier was "I am not good enough at any physical/sports activity to enjoy it" (M = 1.31, SD = 0.937). Finally, in the dimension of lack of resources, the most valued barrier was "if there were a place to exercise and showers at the university, I would be more likely to exercise" (M = 1.87, SD = 0.959).

Table 3. Descriptive Results of the Barriers to Being Active Quiz (BBAQ)

Dimension	Items	M	DE
Lack of time	My day is so busy now that I don't think I can find time to engage in physical activity in my normal schedule.	1.70	0.762
	Doing physical activity takes too much time away from my other obligations like studies, family, schedule, etc.	1.29	0.887
	I have very little free time during the day to exercise.	1.51	0.864
Social influence	None of my family or friends like to engage in physical activity/sports, so I have no opportunity to exercise	1.41	0.911
	I'm embarrassed about how I'm going to look when I exercise in front of other people.	1.33	1.015
	My usual social activities with family and friends do not include physical activities.	1.52	0.907
Lack of energy	I am too tired after university to exercise.	1.67	0.919
	I don't even sleep enough. I couldn't get up earlier or go to bed later to exercise.	1.52	0.939
	I am very tired during the week and need to rest on the weekend to recover.	1.62	0.927
Lack of willpower	I have been thinking about starting to exercise, but I haven't been able to take the first step.	1.66	0.995
	It is easier for me to make excuses not to exercise than to actually do it.	1.35	0.908
	I want to exercise more, but it seems that I can't force myself to do it.	1.43	0.827
Fear of injury	Exercising can be risky at my age.	0.73	0.886
	I know many people who have gotten injured because they exercised too much.	1.17	0.878
	I am afraid of getting injured or having a heart attack.	1.14	0.885
Lack of skill	I don't exercise enough because I have never learned any sports.	1.08	0.927
	I really don't see myself learning a new sport at my age.	1.14	0.906
	I am not good enough at any physical/sports activity to enjoy it.	1.31	0.937
Lack of resources	I don't have access to jogging paths, swimming pools, bike trails, etc.	1.31	1.001
	It's just too expensive. One has to take a class, join a club, or buy the right equipment.	1.36	0.887
	If there were a place to exercise and showers at the university, I would be more likely to exercise.	1.87	0.959

In Table 4, the comparative results of the perceived barriers to engaging in physical activity between men and women are presented. It is observed that women reported significantly higher means at the variable level and in all evaluated dimensions. The effect size (*d*) ranged from low to medium levels, suggesting that the barriers faced by both sexes are sufficiently distinct for these differences to be considered relevant in a practical context. These results indicate that, in general, women perceive more barriers to physical activity compared to men.

Table 4. Comparative Results for the Variable and Dimensions by Sex

Variables and Dimensions	Male		Female		t	p	d
	M	SD	M	SD			
Perceived barriers	24.72	11.598	30.87	11.039	3.831	0.000	0.543
Lack of time	3.94	1.969	4.73	1.904	2.845	0.005	0.408
Social influence	3.69	2.118	4.49	1.962	2.780	0.006	0.392
Lack of energy	3.90	2.319	5.16	2.169	3.994	0.000	0.561
Lack of willpower	3.65	2.184	4.75	1.943	3.835	0.000	0.532
Fear of injury	2.62	1.869	3.20	2.083	2.022	0.044	0.293
Lack of skills	3.07	2.167	3.72	2.319	1.978	0.049	0.290
Lack of resources	3.85	1.739	4.81	2.015	3.450	0.001	0.510

The comparative results in Table 5 show that, overall, there were no statistically significant differences in the perceived barriers to engaging in physical activity, nor in their dimensions, between the age groups of 16 to 24 years and those over 24 years ($p > 0.05$). Additionally, the effect sizes (*d*) were insignificant, and in other cases, low, suggesting that the observed differences lack practical relevance.

Table 5. Comparative Results for the Variable and Dimensions by Age

Variables and Dimensions	Between 16 and 24 Years		Over 24 Years		t	p	d
	M	SD	M	SD			
Perceived barriers	28.83	10.548	30.51	15.457	-0.664	0.510	0.127
Lack of time	4.42	1.904	4.88	2.147	-1.358	0.176	0.227
Social influence	4.22	1.935	4.49	2.481	-0.658	0.513	0.121
Lack of energy	4.77	2.227	4.98	2.544	-0.531	0.596	0.088
Lack of willpower	4.41	1.951	4.56	2.599	-0.342	0.734	0.065
Fear of injury	2.93	1.896	3.54	2.589	-1.729	0.085	0.269
Lack of skill	3.52	2.209	3.63	2.681	-0.302	0.763	0.045
Lack of resources	4.56	1.856	4.44	2.540	0.291	0.772	0.054

In Table 6, statistically significant differences were observed in the variable of perceived barriers to physical activity and in the dimensions of social influence, lack of skill, and lack of resources ($p < 0.05$). In these cases, the effect sizes ranged from small to medium levels. This means that students

who do not work perceive more barriers to physical activity, primarily determined by social influence, as well as lack of skill and resources.

Table 6. Comparative Results for the Variable and Dimensions by Employment Status

Variables and Dimensions	Work		Does Not Work		t	p	d
	M	SD	M	SD			
Perceived barriers	27.10	11.726	30.97	11.049	2.628	0.009	0.340
Lack of time	4.45	1.969	4.55	1.940	0.413	0.680	0.051
Social influence	3.89	2.084	4.60	1.939	2.710	0.007	0.353
Lack of energy	4.69	2.461	4.90	2.108	0.709	0.479	0.092
Lack of willpower	4.18	2.089	4.67	2.035	1.828	0.069	0.238
Fear of injury	2.79	2.007	3.26	2.048	1.806	0.072	0.232
Lack of skills	3.21	2.348	3.83	2.206	2.110	0.036	0.272
Lack of resources	3.88	1.919	5.14	1.852	5.191	0.000	0.668

The comparative results in Table 7 show that, overall, there were no statistically significant differences in the perceived barriers to engaging in physical activity, nor in any of its dimensions, between individuals in stable relationships and those without stable relationships ($p < 0.05$). Additionally, the effect sizes (d) were insignificant, suggesting that the observed differences lack practical relevance.

Table 7. Comparative Results for the Variable and Dimensions by Marital Status

Variables and Dimensions	In	Stable	Without	Stable	t	p	d
	Relationship	Relationship	Relationship	Relationship			
	M	SD	M	SD			
Perceived barriers	29.66	12.191	28.99	11.376	-0.357	0.722	0.057
Lack of time	4.64	2.435	4.47	1.819	-0.448	0.656	0.079
Social influence	4.13	2.071	4.30	2.031	0.510	0.611	0.083
Lack of energy	5.06	2.616	4.74	2.193	-0.873	0.383	0.133
Lack of willpower	4.72	2.223	4.37	2.032	-1.049	0.295	0.164
Fear of injury	2.94	2.004	3.06	2.051	0.380	0.704	0.059
Lack of skills	3.81	2.437	3.47	2.256	-0.911	0.363	0.145
Lack of resources	4.36	1.927	4.58	2.001	0.685	0.494	0.112

5. Discussion

Currently, regular physical activity is widely recognized for its benefits to physical and mental health, especially in young adults such as university students. However, many of them fail to maintain an adequate level of physical activity due to various perceived barriers that influence their behavior. Understanding these barriers is important for developing intervention programs that promote physical activity habits in university life, as an approach that addresses both personal and contextual factors can significantly contribute to well-being and a healthy lifestyle in this population. This

research focused on analyzing the perceived barriers to physical activity in a sample of Peruvian university students.

A preliminary finding shows that the perceived barriers to physical activity were categorized at a medium level, meaning that students acknowledged the presence of certain obstacles that hindered their regular participation in physical activities, but these were not sufficiently determinative to completely prevent their practice. This suggests that, while there are internal and external factors affecting their motivation and willingness to exercise, many students could overcome these barriers with supportive strategies. This is consistent with findings from some studies (Bobo et al., 2024; García, 2020; Izquierdo et al., 2017).

It was also identified that the main reported barriers were lack of energy, lack of resources, and lack of time. This means that students, in general, experienced obstacles related to the availability of personal and external resources to engage in physical activity. Lack of energy may be associated with academic demands and exhaustion, which reduces their willingness to participate in physical activities. The lack of resources, such as accessible facilities or equipment, could further limit opportunities for exercise, while lack of time reflects an overload of academic and personal responsibilities that compete with available time for physical activity.

There are studies that support this finding. For example, in Ecuador, Bobo et al. (2024) determined that the main barriers were lack of time, lack of energy, and lack of resources. Similarly, in Colombia, Rubio et al. (2023) found that lack of time and lack of willpower were the most relevant perceived barriers. On the other hand, in Jordan, Alkhawaldeh et al. (2024) found that students perceived the main barriers to exercise as the lack of nearby locations, unsuitable facility hours, and the distance to exercise spaces.

Another finding shows that women perceived more barriers to physical activity compared to men, which has been corroborated by other studies (Bobo et al., 2024; Blanco et al., 2019; Sevil et al., 2017). This may be due to the greater academic responsibilities they face and often additional roles related to family care or work, which would limit their time and energy for exercising (Peng et al., 2023). Additionally, social expectations and gender stereotypes could affect their confidence to participate in physical activities, especially in competitive environments (Paricahua et al., 2024). Furthermore, the lack of specific programs and resources that encourage physical activity among female students may also contribute to this perception of barriers (Duffey et al., 2021).

Contrary to what was previously thought and reported in prior research (Silva et al., 2022; Gómez et al., 2010), it was found that students who did not work perceived more barriers to physical activity. This was primarily determined by social influence, as well as lack of skill and resources. In other words, despite having more available time, the absence of a social environment that promotes physical activity limited their motivation to participate. Additionally, peer pressure and the lack of role models in their environment created a negative perception of their ability to exercise. Similarly, limited access to resources such as sports facilities or equipment contributed to these students feeling insecure or unprepared to engage in physical activity.

The findings of this study highlight the importance of understanding the barriers perceived by university students to remain physically active. Although it is known that exercise brings enormous health benefits, many students feel limited by factors beyond their control: lack of energy, insufficient resources, and the social pressures they face daily. This shows that it is not enough to promote physical activity as something desirable; it is necessary to understand the particular realities and challenges experienced by both men and women in university. Recognizing these barriers and tailoring support to the circumstances of each student can make a difference in their well-being and in the adoption of healthy long-term habits.

6. Conclusion

It is concluded that the perceived barriers to physical activity were categorized at a medium level, indicating that although there are certain obstacles that limit students' participation in physical activities, these are not insurmountable. Additionally, it was identified that the main barriers were lack of energy, lack of resources, and lack of time. This means that personal and environmental factors significantly influence students' willingness to engage in physical activity. Lack of energy may be related to high academic demands or a sedentary lifestyle, while lack of resources and time reflects possible external limitations, such as access to adequate facilities and the difficulty of organizing activities alongside other responsibilities.

7. Suggestion

It is recommended to implement a comprehensive set of institutional strategies to facilitate physical activity among students and promote their well-being. These measures could include the creation of sports spaces and accessible programs within university facilities, as well as the allocation of specific times for physical activity that do not interfere with academic obligations. Furthermore, it is suggested to develop awareness campaigns about the benefits of physical activity for health, which support students in managing their time and integrating exercise into their daily routine. Similarly, it would be helpful to include workshops on stress management, adequate rest, and healthy habits. Additionally, agreements could be established with nearby sports centers to allow students access to facilities at low or no cost.

8. Limitations

It is important to note that this research has some limitations that should be considered when interpreting the results. First, it was conducted at a single university, which reduces the applicability of the findings to other contexts or different student populations. Additionally, the use of a self-administered instrument may have influenced participants' responses due to social desirability bias. Finally, the cross-sectional design of the study limits the findings to a single point in time, without providing insight into how students' perceptions might vary over the years. These limitations underscore the importance of interpreting the results with caution and suggest that future studies should consider including more diverse samples, as well as utilizing additional data collection instruments. This would allow for a broader and deeper understanding of the phenomenon studied, thus enriching the analysis and interpretation of the findings.

Declarations

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References

- Acosta, D. M., & Corvetto, G. J. (2024). Actividad física-deportiva post pandemia en estudiantes adolescentes de una institución educativa pública-Perú. *Episteme Koinonia*, 7(1), 128-149. <https://doi.org/10.35381/e.k.v7i1.3726>
- Alkhawaldeh, A., Abdalrahim, A., AlBashtawy, M., Ayed, A., Al Omari, O., AlBashtawy, S., Suliman, M., Oweidat, I. A., Khatatbeh, H., Alkhawaldeh, H., Dameery, K. A., Alsaraireh, M., & Alhroub, N. (2024). University students' physical activity: Perceived barriers and benefits to physical activity

and its contributing factors. *SAGE Open Nursing*, 10, 23779608241240490. <https://doi.org/10.1177/23779608241240490>

- Blanco, J. R., Soto, M. C., Benitez, Z. P., Mondaca, F., & Jurado, P. J. (2019). Barreras para la práctica de ejercicio físico en universitarios mexicanos: Comparaciones por género. *Retos*, 36, 80-82. <https://doi.org/10.47197/retos.v36i36.67820>
- Bobo, M., Saavedra, M. Á., & Montero, L. F. (2024). Análisis de las barreras percibidas para la actividad física en universitarios ecuatorianos: Comparación por sexo. *Retos*, 55, 857-866. <https://doi.org/10.47197/retos.v55.105607>
- Brown, C. E. B., Richardson, K., Halil, B., Atkins, L., Yücel, M., & Segrave, R. A. (2024). Key influences on university students' physical activity: A systematic review using the Theoretical Domains Framework and the COM-B model of human behaviour. *BMC Public Health*, 24(1), 418. <https://doi.org/10.1186/s12889-023-17621-4>
- Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports*, 100(2), 126-131.
- Chen, C., Shen, Y., Zhu, Y., Xiao, F., Zhang, J., & Ni, J. (2023). The effect of academic adaptability on learning burnout among college students: The mediating effect of self-esteem and the moderating effect of self-efficacy. *Psychology Research and Behavior Management*, 16, 1615-1629. <https://doi.org/10.2147/PRBM.S408591>
- Cruz, D., Ortigoza, A., & Canova, C. J. (2024). Estrés académico en los estudiantes de Enfermería. *Revista Española de Educación Médica*, 5(2), e598841. <https://doi.org/10.6018/edumed.598841>
- Deliens, T., Deforche, B., De Bourdeaudhuij, I., & Clarys, P. (2015). Determinants of physical activity and sedentary behaviour in university students: A qualitative study using focus group discussions. *BMC Public Health*, 15, 201. <https://doi.org/10.1186/s12889-015-1553-4>
- Dhuli, K., Naureen, Z., Medori, M. C., Fioretti, F., Caruso, P., Perrone, M. A., Nodari, S., Manganotti, P., Xhufi, S., Bushati, M., Bozo, D., Connelly, S. T., Herbst, K. L., & Bertelli, M. (2022). Physical activity for health. *Journal of Preventive Medicine and Hygiene*, 63(S3), E150-E159. <https://doi.org/10.15167/2421-4248/jpmh2022.63.2S3.2756>
- Di Liegro, C. M., Schiera, G., Proia, P., & Di Liegro, I. (2019). Physical activity and brain health. *Genes*, 10(9), 720. <https://doi.org/10.3390/genes10090720>
- Dodd, C., Griffin, N., Kyle, P., Scott, S., Fairbrother, H., Holding, E., Crowder, M., Woodrow, N., & Summerbell, C. (2024). Young people's experiences of physical activity insecurity: A qualitative study highlighting intersectional disadvantage in the UK. *BMC Public Health*, 24(1), 813. <https://doi.org/10.1186/s12889-024-18078-9>
- Duche, A., Paredes, F., Gutiérrez, O., & Carcausto, L. (2020). Transición secundaria-universidad y la adaptación a la vida universitaria. *Revista de Ciencias Sociales*, 26(3), 244-258. <https://doi.org/10.31876/rcs.v26i3.33245>
- Duffey, K., Barbosa, A., Whiting, S., Mendes, R., Yordi Aguirre, I., Tcymbal, A., Abu, K., Gelius, P., & Breda, J. (2021). Barriers and facilitators of physical activity participation in adolescent girls: A systematic review of systematic reviews. *Frontiers in Public Health*, 9, 743935. <https://doi.org/10.3389/fpubh.2021.743935>

- Estrada, E. G. (2024). Burnout académico y hábitos alimentarios en estudiantes universitarios: Un estudio transversal. *Gaceta Médica de Caracas*, 132(3), 599-608. <https://doi.org/10.47307/GMC.2024.132.3.2>
- Estrada, E. G., Quispe, Y. A., Noblega, H., & Malaga, Y. (2024). Autoconcepto físico y motivación hacia la práctica de actividad física en estudiantes universitarios: Un estudio transversal. *Retos*, 61, 39-48. <https://doi.org/10.47197/retos.v61.109580>
- Ferreira, R. M., Mendonça, C. R., Azevedo, V. D., Raoof, A., Noll, P. R. E. S., & Noll, M. (2022). Barriers to high school and university students' physical activity: A systematic review. *PloS One*, 17(4), e0265913. <https://doi.org/10.1371/journal.pone.0265913>
- Franco, S. M., Vásquez, A. C., Valencia, C. L., Vidarte, J. A., & Castiblanco, H. D. (2022). Barreras para el ejercicio físico en estudiantes universitarios de Manizales, Colombia: Diferencias por programa académico. *Hacia la Promoción de la Salud*, 27(1), 129-142. <https://doi.org/10.17151/hpsal.2022.27.1.10>
- García, J. R. (2020). Barreras para la práctica del ejercicio físico en estudiantes mexicanos. *Sinergias Educativas*, 5(2), 208-222. <https://doi.org/10.37954/se.v5i2.123>
- Gómez, M., Granero, A., & Baena, A. (2010). Perceived barriers by university students in the practice of physical activities. *Journal of Sports Science and Medicine*, 9, 374-381.
- Gravetter, F., & Wallnau, L. (2014). *Essentials of statistics for the behavioral sciences* (8th ed.). Wadsworth.
- Herazo, Y., Pinillos, Y., Vidarte, J., Crissien, E., Suarez, D., & García, R. (2017). Predictors of perceived barriers to physical activity in the general adult population: A cross-sectional study. *Brazilian Journal of Physical Therapy*, 21(1), 44-50. <https://doi.org/10.1016/j.bjpt.2016.04.003>
- Izquierdo, L., Hernández, M., & Urrutia, O. (2017). Barreras para la práctica de actividades físicas en estudiantes de la Escuela Latinoamericana de Medicina. *Panorama. Cuba y Salud*, 12(S1), 6-8. <https://revpanorama.sld.cu/index.php/panorama/article/view/722>
- Koh, Y. S., Asharani, P. V., Devi, F., Roystonn, K., Wang, P., Vaingankar, J. A., Abdin, E., Sum, C. F., Lee, E. S., Müller, F., Chong, S. A., & Subramaniam, M. (2022). A cross-sectional study on the perceived barriers to physical activity and their associations with domain-specific physical activity and sedentary behaviour. *BMC Public Health*, 22(1), 1051. <https://doi.org/10.1186/s12889-022-13431-2>
- Kruszyńska, E., & Poczta, J. (2020). Difficulties limiting access to sports and recreational facilities in the city in the perceptions of service users: Sports and recreational infrastructure management policy—Poznan case study. *International Journal of Environmental Research and Public Health*, 17(5), 1768. <https://doi.org/10.3390/ijerph17051768>
- Li, J., Huang, Z., Si, W., & Shao, T. (2022). The effects of physical activity on positive emotions in children and adolescents: A systematic review and meta-analysis. *International Journal of Environmental Research and Public Health*, 19(21), 14185. <https://doi.org/10.3390/ijerph192114185>
- Mahindru, A., Patil, P., & Agrawal, V. (2023). Role of physical activity on mental health and well-being: A review. *Cureus*, 15(1), e33475. <https://doi.org/10.7759/cureus.33475>
- Mamani, R., Roque, E., Colque, N., & Solorzano, M. (2023). Actividad física y el deterioro cognitivo en adultos mayores. *Revista Ciencias de la Actividad Física UCM*, 24(1), 1-14. <https://doi.org/10.29035/rcaf.24.1.8>

- Ministerio de Salud del Perú. (2023, noviembre 22). *Minsa: Solo el 26% de la población peruana adulta realiza actividad física*. El Peruano. <https://www.elperuano.pe/noticia/206945-minsa-solo-el-26-de-la-poblacion-peruana-adulta-realiza-actividad-fisica>
- Paricahua, J. N., Estrada, E. G., Poma, R. S., Velasquez, L., Herrera, A. J., Cruz, G. J., Guevara, M. F., Mora, O., & Cruz, E. O. (2024). Calidad de sueño, salud mental y actividad física en estudiantes universitarios de la Amazonía peruana. *Retos*, *61*, 59-68. <https://doi.org/10.47197/retos.v61.109649>
- Paricahua, J. N., Estrada, E. G., Velasquez, L., & Herrera, A. J. (2023). Explorando las prácticas saludables: Estilos de vida entre estudiantes universitarios de la Amazonía peruana. *Journal of Law and Sustainable Development*, *11*(4), e665. <https://doi.org/10.55908/sdgs.v11i4.665>
- Peng, B., Ng, J. Y. Y., & Ha, A. S. (2023). Barriers and facilitators to physical activity for young adult women: A systematic review and thematic synthesis of qualitative literature. *The International Journal of Behavioral Nutrition and Physical Activity*, *20*(1), 23. <https://doi.org/10.1186/s12966-023-01411-7>
- Ramos, D., Rueda, D., Silvia, M. & Carvajal, L. M. (2024). El estrés enfrentado en prácticas pre profesionales por el interno rotativo de enfermería durante la pandemia. *Universidad y Sociedad*, *16*(2), 65-74. <https://rus.ucf.edu.cu/index.php/rus/article/view/4371>
- Reyes, D., Nazar, G., Cigarroa, I., Carrasco, F., Cárcamo, R., Rozas, K., Martorell, M., Ochoa, C., Ulloa, N., & Zapata, R. (2023). Motivación, barreras y beneficios para la práctica de ejercicio físico en una intervención Mobile Health en adultos del Biobío, Chile. *Retos*, *49*, 623-631. <https://doi.org/10.47197/retos.v49.97141>
- Rubio, F., Rubén, R., & Correa, J. E. (2015). Propiedades psicométricas de la versión al español del cuestionario "Barriers to Being Active Quiz", entre estudiantes universitarios de Colombia. *Nutrición Hospitalaria*, *31*(4), 1708-1716. <https://doi.org/10.3305/nh.2015.31.4.8404>
- Rubio, M. N., Córdoba, L., & Orejuela, D. F. (2023). Barreras percibidas y nivel de actividad física en universitarios colombianos durante la pandemia por COVID-19. *Pensar en Movimiento: Revista de Ciencias del Ejercicio y la Salud*, *21*(2), e51144. <https://doi.org/10.15517/pensarmov.v21i2.51144>
- Saqib, Z. A., Dai, J., Menhas, R., Mahmood, S., Karim, M., Sang, X., & Weng, Y. (2020). Physical activity is a medicine for non-communicable diseases: A survey study regarding the perception of physical activity impact on health wellbeing. *Risk Management and Healthcare Policy*, *13*, 2949-2962. <https://doi.org/10.2147/RMHP.S280339>
- Schuch, F. B., & Vancampfort, D. (2021). Physical activity, exercise, and mental disorders: It is time to move on. *Trends in Psychiatry and Psychotherapy*, *43*(3), 177-184. <https://doi.org/10.47626/2237-6089-2021-0237>
- Sevil, J., Práxedes, A., Zaragoza, J., Del Villar, F., & García, L. (2017). Barreras percibidas para la práctica de actividad física en estudiantes universitarios: Diferencias por género y niveles de actividad física. *Universitas Psychologica*, *16*(4), 1-15. <https://doi.org/10.11144/Javeriana.upsy16-4.bppa>
- Silva, R. M. F., Fonseca Terra, L., Fernandes, M. d. S. V., Noll, P. R. E. S., Abreu, L. C. d., & Noll, M. (2022). Barriers to physical activity among full-time students: A case study during the COVID-19 pandemic. *Sustainability*, *14*(19), 11896. <https://doi.org/10.3390/su141911896>
- Strain, T., Flaxman, S., Guthold, R., Semenova, E., Cowan, M., Riley, L. M., Bull, F. C., & Stevens, G. A. (2024). National, regional, and global trends in insufficient physical activity among adults from 2000 to 2022: A pooled analysis of 507 population-based surveys with 5.7 million participants.

The Lancet Global Health, 12(8), e1232-e1243. [https://doi.org/10.1016/s2214-109x\(24\)00150-5](https://doi.org/10.1016/s2214-109x(24)00150-5)

Teuber, M., Leyhr, D., & Sudeck, G. (2024). Physical activity improves stress load, recovery, and academic performance-related parameters among university students: A longitudinal study on daily level. *BMC Public Health*, 24(1), 598. <https://doi.org/10.1186/s12889-024-18082-z>

Vargas, P., Rivas, L., & Carcelén, C. (2024). Nivel de actividad física y sedentarismo en adolescentes de Perú. *Revista Cubana de Salud Pública*, 49(3), e3887. <https://revsaludpublica.sld.cu/index.php/spu/article/view/3887>

Wilson, N., Cale, L., & Casey, A. (2023). "Instead of being on a screen you can be more out there and enjoy your life": Young people's understandings of physical activity for health. *International Journal of Environmental Research and Public Health*, 20(10), 5880. <https://doi.org/10.3390/ijerph20105880>

Wu, Y., Van Gerven, P. W. M., de Groot, R. H. M., O Eijnde, B., Seghers, J., Winkens, B., & Savelberg, H. H. C. M. (2023). The association between academic schedule and physical activity behaviors in university students. *International Journal of Environmental Research and Public Health*, 20(2), 1572. <https://doi.org/10.3390/ijerph20021572>

About the Contributor(s)

Edwin Gustavo Estrada-Araoz, Ph.D. in Education, Master in Education Administration, Master in Educational Psychology, and Bachelor in Primary Education. He currently works as an undergraduate professor at the Universidad Nacional Amazónica de Madre de Dios and has been recognized as a RENACYT researcher by the National Council of Science, Technology, and Technological Innovation – CONCYTEC.

Email: gestrada@unamad.edu.pe

ORCID: <https://orcid.org/0000-0003-4159-934X>

Jhemy Quispe-Aquise, Ph.D. in Education, Master in Education Administration, and Bachelor's in Mathematics and Computing. He currently works as an undergraduate professor at the Universidad Nacional Amazónica de Madre de Dios and has been recognized as a RENACYT researcher by the National Council of Science, Technology, and Technological Innovation – CONCYTEC.

Email: jhquispe@unamad.edu.pe

ORCID: <https://orcid.org/0000-0001-6339-3399>

Guido Ayay-Arista, Ph.D. in Science for Sustainable Development. Master in Education with a specialization in Educational Management and Regional Development. Bachelor in Primary Education. He currently works as an undergraduate professor at the Universidad Nacional Intercultural Fabiola Salazar Leguia de Bagua

Email: gayay@unibagua.edu.pe

ORCID: <https://orcid.org/0000-0002-5716-7376>

Gilber Chura-Quispe, Ph.D. in Education Sciences, Master's in University Teaching and Educational Management, Bachelor's in Education with a specialization in Language and Literature. He is currently a postgraduate professor at the Escuela de Posgrado Newman.

Email: gilber.chura@epnewman.edu.pe

ORCID: <https://orcid.org/0000-0002-3467-2695>

Neil Anthony Quipo-Conde, Master's in Public Management, Civil Engineer. He currently works as an undergraduate professor at the Universidad Andina del Cusco. He is the author of high-impact scientific articles.

Email: nquipo@uandina.edu.pe

ORCID: <https://orcid.org/0009-0004-5813-5503>

Freddy Abel Rivera-Mamani, Master's in Education Sciences, Bachelor's in Business Administration. He currently works as an undergraduate professor at the Universidad Nacional Amazónica de Madre de Dios and has been recognized as a RENACYT researcher by the National Council of Science, Technology, and Technological Innovation – CONCYTEC.

Email: fribera@unamad.edu.pe

ORCID: <https://orcid.org/0000-0002-8881-0782>

Maribel Mamani-Roque, Master's in Mathematical Research, Bachelor's in Education. She currently works as an undergraduate professor at the Universidad Nacional del Altiplano and has been recognized as a RENACYT researcher by the National Council of Science, Technology, and Technological Innovation – CONCYTEC.

Email: mmamanir@unap.edu.pe

ORCID: <https://orcid.org/0000-0002-9918-8554>

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