



Barriers to Physical Activity of Bachelor of Physical Education Students- An Observational Study

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Authors' contributions

This work was carried out in collaboration between both authors. Author MM designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author MNG managed the analyses of the study and managed the literature searches. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: This study aims to identify the barriers to Physical Activities of the Bachelor of Physical Education.

Study Design: The researchers employed individual semi-structured interviews.

Place and Duration of Study: Bachelor of Physical Education of Apayao State College, between December 2022 and December 2023.

Methodology: We included 36 students in the Bachelor of Physical Education of Apayao State College (16 women, 20 men; age range 18-24 years).

Results: These findings implies that the BPEd students who are currently enrolled in the Department of BPEd came from a family who are of average and low socio-economic status and

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need assistance in their educational journey at the Apayao State College. This shows that the main barriers to physical activity in the BPEd students were related to the following dimensions: psychological, emotional, and cognitive (lack of time and motivation); environmental (lack of accessible places); and socioeconomic and demographic (lack of financial resources).

Conclusion: These results imply that these factors should be given priority in any future behavioral change remedies or interventions addressing physical activity barriers.

Keywords: Barriers; physical activity; education; students.

1. INTRODUCTION

Physical activity is universally recognized as a cornerstone of individual health and well-being. It has been linked to numerous benefits, including improved cardiovascular health, enhanced mental well-being, and a reduced risk of chronic diseases such as obesity and diabetes. Understanding the barriers to physical activity is crucial, as it allows us to develop targeted interventions and strategies to promote a more active lifestyle (Warburton & Bredin, 2017). The aim of this research study is to delve into the multifaceted nature of these barriers, examining the complex interplay of personal, environmental, and socio-economic factors that hinder individuals from adopting and maintaining a physically active lifestyle. Currently, there are many studies that reveal the lack of physical activity and physical fitness that occurs in almost all countries and at all age levels. Low physical activity must not be separated from a variety of reasons and barriers experienced and felt by everyone. Experts in many countries have been a lot of research about the barriers that reason everyone to do physical activity.

There are many barriers to physical activity for college students. There are researches different factors like time constraints, lack of motivation, and poor sleep habits are just a few of the barriers to physical activity by gender, age, and others are some of the obstacles that students face when trying to maintain an active lifestyle. Experts in many countries have been a lot of research about the barriers that reason for everyone to do physical activity (Sultoni et al., 2017). The first barrier is time. With classes, homework, and extracurricular activities, it can be hard to find time to exercise. Additionally, many college students do not have access to a gym or fitness center. This can make it difficult to find the resources necessary to stay active.

According to Deci & Ryan (2013) the second barrier is motivation. It can be hard to stay motivated to exercise when there are no

immediate benefits. Some students' motivations to be physically active comes from wanting to improve their health or lose weight. However, these goals can seem distant and difficult to achieve. The third barrier is sleep. College students often do not get enough sleep, which can lead to fatigue and a lack of energy. This can make it difficult to find the motivation to exercise. Additionally, when students are tired, they are more likely to make poor food choices, which can lead to weight gain. According to Sultoni, et.al, (2017), students who have lower levels of physical activity, have a higher barrier to "social influence" when compared with students who have vigorous physical activity.

Moreover, there are many ways to overcome these barriers to physical activity. First, students can try to find time in their schedule for at least 30 minutes of exercise each day. This can be done by waking up earlier, using breaks between classes, or working out in the evening. Second, students can find a workout partner or group to help them stay motivated. Finally, students ensure they are getting enough sleep by going to bed reasonably time and avoiding caffeine before bed.

2. METHODOLOGY

2.1 Research Design

This study utilized a observational study design with a semi-structured interview to examine BPEd students' perceptions of barriers to physical activity.

2.2 Participants and Sampling

The respondents of this study utilized the currently enrolled thirty-six (36) BPEd students at Apayao State College - Luna Campus.

2.3 Locale of the Study

This study was conducted with the participation of the thirty-six (36) BPEd students of Apayao

State College – Luna Campus located at San Isidro Sur, Luna Apayao.

2.4 Research Instruments

“The researcher employed individual semi-structured interviews with the BPEd students. Individual student interviews was chosen as a means for data collection from key participants in the tertiary educational setting. This method of data acquisition was allowed the researcher an efficient means to attain many perspectives on a common topic from key participants” (Glesne, et. al, 2006).

Interview was an appropriate research tool because they can yield information about how present situations evolved from prior events or decisions. Research investigations about tertiary educational outcomes (Finn, et. al, 1989). Interviews with key players in the tertiary educational environment yielded valuable information for the BPEd student physical activity research base. The interview is used as “a principal research tool” for information gathering by many social scientists, including historians, sociologists, political scientists, and educators (Rubin & Rubin, et.al, 1995, p. 3). Qualitative interviewing provided an academic and practical tool that allowed the researcher “to share the world of others to find out what is going on, why people do what they do, and how they understand their worlds” (p. 5). Interviewing builds upon preexisting conversational skills of participants and researchers.

“Nevertheless, qualitative interviews are different from an ordinary conversation in that the interview is utilized as a research tool, with the specific design and intent of “learning about people’s feelings, thoughts, and experiences”. In qualitative research, interviewing provides the researcher the opportunity to explore what cannot be seen and to consider alternative explanations for what is seen” (Glesne, et. al, 1999). “Interviewing individuals enables a researcher to explore a topic from the perspective of those being interviewed and provides a means to learn about what others think and feel” (Rubin & Rubin, et.al, 1995). “Interviews always involve at least two people but may include one or more interviewers and more than one interviewee” (Glesne, et. al, 1999). The researcher was utilized individual BPEd interviews to elicit participant perceptions about the study question. Glesne noted, “Interviewing more than one person at a time sometimes

proves very useful. Therefore, to elicit student participant perceptions, the researcher was utilized BPEd students in order to facilitate maximum participant participation and expressive freedom. An additional advantage of BPEd student interviews is that they were provided an effective means to gather information in a relatively brief time frame. The use of BPEd students was allowed efficient data collection from multiple viewpoints on a topic affecting all participants (Glesne, et. al, 2006). Morgan, et.al, (1997) observed that BPEd students provide the following research advantages: (1) concentrated amounts of data about the research topic is produced; (2) interaction among BPEd student members produces useful data; (3) since the researcher controls the topic, the BPEd students are topic oriented. The researcher was served as the facilitator for the BPEd students. At the beginning of each student, researcher discussed interview parameters and ground rules (Glesne, 2006). Participants was aware of session time limits as well as the rule that only one person should speak at a time. To generate dialogue about the research 65 subject, barriers to BPEd physical activity, the initial interview question inquired about the BPEd student experience of each participant. The aim of the present research were explored participant perceptions about barriers to BPEd students’ physical activity.

2.5 Data Gathering Process

“The researcher obtained a written approval from the BPEd, program chair prior to conducting the research. Participant names were randomly selected from the pool of qualified candidate names provided by the BPEd, Program Chair. In the event one qualified individual did not wish to participate, then the name of another qualified potential participant was randomly selected in a drawing until a suitable participant number was obtained. The researcher conducted 60-90 minutes long interviews with BPEd students at mutually agreed upon times and locations. The researcher utilized a 15-item semi-structured interview protocol to guide the researcher. The interview protocol was on the upon interview questions which addressed potential success barriers associated with factors and variables associated with the individual, the family, and the educational setting. After the formation of BPEd students, a convenient meeting location and time was scheduled. The researcher developed questions that guided the BPEd student’s discussion and data collection. With full consent

and knowledge of participants, all individual interviews were audio-recorded and transcribed for later review by the researcher. The researcher made observational notes regarding participant behavior and collected 35 school data and artifacts. The use of audiotapes, printed transcriptions, and researcher notes allowed for enrichment and validation during data analysis. All audiotapes and notes were kept in a locked secure filing cabinet in the researcher’s office. Original research materials and data were maintained and later destroyed in compliance with institutional IRB timelines and regulations” (Sapp, Judy S., et.al, 2009).

2.6 Data Gathering Analysis

The researcher sought to identify barriers to the physical activity of BPED. Participant responses to interview questions were audio-recorded and professionally transcribed. The researcher was analyzed all interview transcripts for recurring themes and patterns. Participant response data was coded based on the similarity of participant responses about barriers. The researcher used an iterative process to develop themes, codes, and sub-codes. A narrative analysis used to analyze and synthesized the collected data.

3. RESULTS AND DISCUSSION

3.1 Profile of the Respondents

Table 1. Frequency distribution on sex

SEX	F	%
Female	16	44.44
Male	20	55.6

Table 1 presents the distribution of respondents in terms of sex. As shown in the table, 20 or 55.6% were male, and 16 or 44.4% were female in the BPED. This finding shows that the BPED students who are currently enrolled in the Department of BPED in the college registrar.

Table 2. Frequency distribution on age

AGE	F	%
18	3	8.33
19	16	44.44
20	8	22.22
21	5	13.87
22	0	0
23	3	8.33
24	1	2.78

Table 2 presents the distribution of respondents in terms of age. As shown in the Table 3 or 8.33% were 18 years old, 16 or 44.44% were 19 years old, 8 or 22.22% were 20 years old, 5 or 13.88% were 21 years old, 3 or 8.33% and 1 or 2.77% This finding shows that the age of the BPED students who are currently enrolled in the Department of BPED ranges from 18 - 24.

Table 3. Frequency distribution on socio - economic status

Socio-Economic Status	F	%
High	0	0
Average	20	55.56
Low	16	44.44

Table 3 presents the distribution of respondents in terms of socio-economic status. As shown in the table, 20 or 55.6% belonged to average status, and 16 or 44.4% in low socio-economic status in the BPED. This finding implies that the BPED students who are currently enrolled in the Department of BPED came from a family who are of average and low socio-economic status and needs assistance in their educational journey.

Physical activity is important for everyone, especially for BPED students. Regular physical activity can help students stay fit, maintain a healthy weight, and prevent disease. Unfortunately, there are many barriers to physical activity that students may face.

3.2 Major Themes on Barriers to Physical Activity of BPED Students

3.2.1 Psychological, emotional, and cognitive (Lack of time and motivation)

Time: One of the biggest barriers to physical activity is lack of time. BPED students may have a busy academic and social life, leaving little time for physical activity. In addition, students may have to work long hours on top of their studies, leaving even less time to exercise.

Mindset: can be a major barrier to physical activity for BPED students. Many students may have a negative attitude towards physical activity, either because they do not enjoy it or because they feel they are not good at it. This can lead to a lack of motivation and a reluctance to engage in physical activity.

3.2.2 Environmental (Lack of accessible places)

Accessible Places: Another barrier to physical activity is the location of the student's physical activity. Many BPEd students may live in areas that lack resources or access to suitable physical activity spaces. Without easy access to places such as parks, gyms, or running trails, it can be difficult for students to find a place to get active.

3.2.3 Socioeconomic and demographic (Lack of financial resources)

Financial Resources: Finally, the cost can be a major barrier to physical activity. Many BPEd students may not have the money to afford gym memberships or fitness classes. Without access to these resources, it can be hard for students to stay active.

"The main barriers to physical activity in undergraduate university students were related to the following dimensions: psychological, emotional, and cognitive (lack of time and motivation); environmental (lack of accessible places); and socioeconomic and demographic (lack of financial resources). Barriers in the psychological, emotional, and cognitive categories were identified in almost all parts of the world that were covered by the included studies. Among others, lack of time was the most cited barrier to physical activity in university students. Although no previous systematic reviews have identified barriers to physical activity among university students, some qualitative studies have shown the presence of motivational and time-related barriers as factors preventing university students from practicing physical activity" (Burton NW et. al, 2021), (Hilger-Kolb J., et. al, 2020), (Deliens T, et. al. 2015). Furthermore, barriers to physical activity are almost similar in reviews on different populations, for example in individuals from the Middle East and North Africa (Chaabane S. et. al. 2021), pregnant women (Harrison AL, et. al. 2018), and medical services professionals (Supples MW, et. al. 2021). A recent systematic review showed that cultural values (e.g., general and gender norms) affect the practice of physical activity in specific countries (e.g., Arab countries) (Sharara E. et. al. 2018). "Further, it is important to note that access to university is restricted by socioeconomic status: adolescents and young adults with a lower socioeconomic level have less access to higher education, which may also be related to a greater social and cultural barrier

to physical activity. Furthermore, socioeconomic barriers permeate all other barriers. For example, motivation for physical activity, knowledge of its benefits, time availability, social support from family, and access to equipment are negatively influenced by socioeconomic vulnerability" (Pedersen MR, et. al. 2021).

Many behavior change theories Brand R, et. al, (2019), Rhodes RE. et. al., (2019), Buchan DS. Et. al., (2012), health behavior adoption theories (Schwarzer R., 2008), and social-ecological models (Humpel N., et. al., 2002), (Stokols D., 2000) have been used to promote active lifestyles in different population groups. However, behavior change is a complex and multifaceted phenomenon with multiple levels of influence (Buchan DS. Et. al., 2012). Therefore, multilevel physical activity interventions targeting several components (e.g., individuals, social and physical environments, and policies) have been shown to have promising effects (Guldager JD., et. al. 2016), (Vaquero-Solís M, et. al.2020), (Abu-Omar K, et. al., 2017), (Schlund A, et. al., 2021). Intrinsic motivation is an important factor used to determine active participation in physical activity and sports (Sierra-Díaz MJ, et. al. 2019); thus, to increase adolescents' daily physical activity, special focus should be paid to increasing their intrinsic motivation (Burke SM, et. al, 2006). Some studies have also pointed out the importance of context in understanding physical activity motivation and the role of culture in preventing participation in physical activity (Guldager JD., et. al. 2016), (Kalajas-Tilga H. et. al., 2020), (Memon AR, et. al. 2018), (Welk GJ., et. al., 2015), (Abbasi IN., 2014), (Aljayyousi GF., et. al. 2019).

Screen time was not identified as a barrier to physical activity, but it may be related to the "lack of time" barrier since spending more time on a device means having less time for other activities, including physical activity. A study with Spanish teenagers found that those who spent more time in front of screens spent less time performing physical activity (Lizandra J. et. al. 2019). In addition, screen time was reported as the main driver for adolescents' inability to meet the recommendation of moderate-to-vigorous physical activity in the United Kingdom (Pearson N., 2019). Understanding the barriers to physical activity is important because it may provide information useful for creating public health and educational policies. Thus, actions and programs to promote the practice of physical activity should always consider all dimensions of physical

activity barriers, and special attention should be given to psychological, emotional, and cognitive factors.

In order to overcome these barriers, it is important for BPEd students to create an environment in which physical activity is seen as enjoyable and beneficial. They should focus on activities that they enjoy, and that fit into their schedule. Additionally, it is important to take breaks and rest when needed, so that physical activity does not become a chore. With the right mindset and support, BPEd students can stay active and reap the many benefits of physical activity.

In conclusion, there are many barriers to physical activity that BPEd students may face. From lack of time to lack of resources and cost, these barriers can make it difficult for students to stay active. However, with some creativity and dedication, students can find ways to get the physical activity they need.

4. CONCLUSION

These are the biggest psychological, emotional, cognitive, environmental, and social issues that prevent Bachelor of Physical Education (BPEd) students from engaging in physical exercise. These results imply that these factors should be given priority in any future behavioral change remedies or interventions addressing physical activity barriers.

Future research will also need to focus on the least studied components, such as behavioral traits and physical activity features.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that generative AI technologies such as Large Language Models, etc. have been used during the writing or editing of manuscripts. This explanation will include the name, version, model, and source of the generative AI technology and as well as all input prompts provided to the generative AI technology.

Details of the AI usage are given below:

1. ChatGPT

ETHICAL APPROVAL

The researcher obtained a written approval from the BPEd, program chair prior to conducting the research.

CONSENT

The researcher developed questions that guided the BPEd student's discussion and data collection. With written consent and knowledge of participants, all individual interviews were audio-recorded and transcribed for later review by the researcher.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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