



PERCEIVED BARRIERS TO PHYSICAL ACTIVITY AMONG COLLEGE STUDENTS: BASIS FOR INTERVENTION PROGRAM

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Abstract:

The researchers were motivated to conduct this study to help the researchers know and become aware of all the problems and challenges of college students, as well as their perceived barriers and, through information gathered, students in the university. The purpose of this study was to determine the perceived barriers to physical activity and its relevance to college students— the 379 college students from different departments at a private institution in the University of Mindanao. To analyze the data, the researcher used the descriptive- survey research design, a modified questionnaire from a prior study, and mean and Pearson's r to analyze the data. The findings revealed that the participants' exposure and differences in perceived barriers to physical activity by gender, age, and year level are high. The level of exposure and gender, age, and year level of the respondents are significantly related. In addition, this refers to a person's behavior as an obstacle to carrying out a prescribed health action. A person's perception of barriers or limitations differs enormously, leading to a cost or benefit analysis.

Keywords: perceived barriers, exposure, physical cognitive emotional, social support, physical activity

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1. Introduction

A study by Saleem *et al.* (2018) showed that students involved in a number of activities at their respective schools reported feeling tired and exhausted as a significant problem caused by physical inactivity. Lack of physical activity at a young age can increase the risk of getting cardiovascular disease, cancer, and osteoporosis later in life, overweight and obesity, and increase the chances of being physically inactive during adulthood (Jose *et al.*, 2011; World Health Organization, 2010).

The word PA distinguishes advancements in that it is scheduled, structured, and used on a daily basis. Furthermore, during the expression of activity, attempts to upgrade or safeguard the real work components link with projects that use the available energy to go to and from areas with health advantages. Nonetheless, both of these have the potential to improve people's well-being (WHO, 2018). Understanding common barriers to physical activity and devising strategies to overcome them may aid in making physical activity a regular part of one's life. Individuals encounter a variety of human and natural barriers when participating in regular physical activity.

Anchor to the survey by college students and staff propose an apparent absence of admittance to advantageous spots, like parks and jungle gyms, the need or helpless state of asphalts and bicycle ways, as well as security, are concerns and impediments to individuals' investment in PA (Lian *et al.*, 2016). Regular physical activity is related to upgraded well-being and decreased danger of all-cause mortality. Past the consequences for mortality, actual work has numerous medical advantages, including the diminished danger of cardiovascular infection, ischemic stroke, non-insulin-subordinate (type 2) diabetes, colon malignant growths, osteoporosis, sadness, and fall-related wounds. Modernization and hectic everyday life have shifted from the traditional kind of human being.

This study was supported by Mitchie S. (2008), who proposed the theoretical domain framework (TDF), which contains 11 determinants of conduct change (notwithstanding the idea of the conduct), instances of which incorporate 'climate and assets', 'feeling', 'inspiration and objectives', 'convictions about abilities', and 'social impacts'. Rather than a hypothetical clarification of a bunch of practices distinguishing causal cycles that connect hypothetical develops, this pragmatic framework recognizes key determinants and builds and gives a manual for pertinent clarifications of current practices, which can be evaluated and, therefore, signal open doors and strategies for mediation. Thus, accurate assessment of determinants of physical activity at the level of the individual has the potential to allow for tailored interventions that target those determinants representing a person's barriers to physical activity. One way to achieve this level of assessment is via a questionnaire.

Additionally, anchored on these compelling theoretical claims, the impact on students' physical activity levels is not well understood; however, this review revealed that Daily Physical Activity (DPA) delivers (i.e., teachers, principals, and administration) often report many barriers to DPA implementation. Most of which relate to the

environmental context and resources (i.e., lack of training, time, and resources), beliefs about consequences (i.e., burden on teacher, classroom influences), and social influences (i.e., lack of student/parent interest) domains of the Theoretical Domains Framework (TDF). Understanding these implementation barriers from a theoretical perspective is the key to creating solutions to overcome them in the future. Our review adds this theoretical analysis to the existing literature and is relevant to other studies examining the implementation of school-based interventions and policies that commonly report similar barriers and facilitators to uptake (Weatherson & Gainforth, 2017).

Moreover, researchers found that the most serious issues are the declining PA of students and the absence of social help in taking part in physical activity. It is a huge and developing issue that understudies are presently confronting. Parents, instructors, and other key good examples are progressively urged to consolidate PA into the day-by-day way of life of students (Lisinskiene & Juskieliene, 2019). Besides, the absence of PA among students is ascribed to their bustling lives, and studies have indicated that college understudies have related physical inactivity issues (Fagaras *et al.*, 2015). In Japan, for example, the most important potential obstacle that impacts factors influencing PA is lack of time (Ibrahim *et al.*, 2013). Despite the fact that lack of time due to conflicting classes, for example, schoolwork or get-togethers, might be viewed as an inherent hindrance to PA association, the presumption that there is not sufficient time could be credited to the low level of significance with which PA was viewed as connected to certain competing demands (Vu-Nguyen *et al.*, 2016).

Furthermore, this research will benefit the school administration by addressing the needs of the students and providing a safe and healthy academic environment. Second, the teacher and students will benefit from this because it will serve as a guideline for improving their motivation, academic performance, and engagement in the learning process. Lastly, to the future researcher who can use this study as a basis to foster changes in improving healthy lifestyles and promoting well-being. In addition, they can use this as a reference to their future studies, particularly in quantitative research.

This research will look at the demographic profile of selected physical activity among college students on developments, as well as the level of perceived barriers to their physical activity output. Besides, the significance of perceived barriers to physical activity will be investigated. The results will serve as the framework and basis for an intervention program that involves presenting, enhancing, and reviewing school responses to changes.

2. Material and Methods

2.1 Research Participants

The study's target participants were 377 Bachelor of Physical Education students currently enrolled in a particular university in Davao Region, SY 2021-2022. The Rao soft sample size calculator was used to calculate the suggested sample size of 30 participants. According to Bullen (2021), the minimal sample size is 100, to which most of the

statisticians agreed. On the other hand, the minimal 100-sample size is enough and acceptable to attest to the knowledge that will yield any form of valid conclusions based on the results. Moreover, Hayes (2021) emphasizes that the stratified random sampling technique involves selecting data at random from an entire population, with each possible sample having an equal possibility of occurring. Therefore, a stratified random sampling technique was used in this study to ensure that every year level is proportionately represented.

2.2 Research Instrument

A final sample of 377 college students. Table 1 presents the descriptive data on the profile variables analyzed, and the subjects were divided according to their gender, age and year. The demographic profile of respondents of gender is female $f = 218$ (%57.8), age is 21-24, $f = 280$ (%74.3), and the year is third-year $f = 154$ (%40.8). The scale below was utilised to interpret the responses. Table 1 precisely reflects the distribution of the participants in terms of the different moderating variables.

Table 1: Demographic data

Moderating Variables	f	%
Gender		
Female	218	57.8
Male	159	42.2
Age		
17-20	87	23.1
21-24	280	74.3
25-28	4	1.1
29 above	6	1.6
Year Level		
1st year	30	8.0
2nd year	77	20.4
3rd year	154	40.8
4th year	116	30.8
Socio-economic		
Fulltime Student	302	81.2
Working Student	75	18.8

2.3 Design and Procedure

The researchers used a descriptive survey research design; conducted on perceived barriers to physical activity among college students. The researchers prepared an online administration of questionnaires using Google Forms after receiving authorization to conduct the study. After the survey was completed, the responses were gathered. Data has been collected and analyzed with the assistance of a statistician in order to complete the desired number of responses. All the respondents voluntarily filled out the Google Forms; the researchers ensured the security of the respondents' data throughout the study to protect confidentiality. The mean was engaged to examine the data, and

Pearson's r. Finally, the researchers analyzed the data and came up with conclusions and recommendations.

4. Results and Discussion

Table 2 uses descriptive statistics data on the level of exposure to perceived barriers to physical activity as measured through indicators: described PCE mean is 3.1416 (SD .94091), ss mean is 3.3141 (SD 1.029247), physical mean is 3.3645 (SD 1.01871) and the exposure mean is 3.2735 (SD .90486).

Table 2: Level of Exposure to Perceived Barriers to Physical Activity

Indicators	Mean	SD
1. Previous bad experience with physical sports activity.	3.1857	1.18614
2. Fear of deterioration of physical illness.	3.3581	1.11405
3. Not interested in sports.	3.0318	1.22650
4. Feeling unable to practice sports adequately.	3.2759	1.14542
5. Ignorance about benefits of sports.	2.8568	1.13722
PCE	3.1416	.94091
6. Lack of motivation	3.3448	1.20634
7. Lack of support and encouragement from others.	3.3395	1.13754
8. Nobody to care for my family.	3.2149	1.33448
9. Have other important priorities.	3.4615	1.12005
10. Objection of parents.	3.2095	1.28250
SS	3.3141	1.02927
11. Lack of sports programme's that suit my physical fitness.	3.3820	1.14738
12. Unsuitable (hot or cold) weather.	3.3846	1.15458
13. Lack of accessible and suitable sports places.	3.4.191	1.17122
14. Prefer not to attend sports places.	3.3316	1.17096
15. Feeling tired on physical activity.	3.3050	1.21594
Physical	3.3645	1.01871
Exposure	3.2735	.90486

This categorically implies that the indicators that have the highest risk of exposure to perceived barriers to physical activity are physical. Participants who perceive more barriers to physical activity have a higher probability of becoming inactive. According to Piéron et al. (2008), one has to be consistent and prudent when analyzing and considering the results. It should be taken into account that the questionnaire's technique depends on the veracity of the answers expressed by the participants.

However, the measurement and verification reality checks confirm the results in the studies where this questionnaire has been used.

This data is consistent with the findings of Sharifi, Mahdavi, and Ebrahimi (2013), who found that lack of time and motivation were the most significant external and internal barriers to physical activity. Being a young adult from a low socioeconomic background is the risk factor most closely linked to the perceived barriers of lack of motivation and finances. Individuals with lower economic income perceive more

personal barriers, including not having enough energy to exercise after work and limited talent and self-discipline for physical activity.

Table 3: Difference in Perceived Barriers to Physical Activity by Gender

Gender	Mean	SD
PCE		
Female	3.0459	.91203
Male	3.2730	.96664
SS		
Female	3.2954	1.00031
Male	3.3396	1.07037
Physical		
Female	3.3138	1.01049
Male	3.4340	1.02900

Table 3 shows the computed demographic difference between the gender and type of students. As a result, the findings revealed no statistically significant difference between male and female respondents with a t-value of

The most frequently reported response regarding the difference in perceived barriers to physical activity by gender is male. Previous literature reports factors such as motivation, lack of time, and enjoyment, particularly among inactive people.

Table 4: Difference in Perceived Barriers to Physical Activity by Age

		Sum of Squares	df	Mean Square	F	Sig.
PCE	Between Groups	3.587	4	1.196	1.354	.257
	Within Groups	329.290	373	.883		
	Total	332.876	376			
SS	Between Groups	4.282	4	1.427	1.351	.257
	Within Groups	394.053	373	1.056		
	Total	398.335	376			
Physical	Between Groups	2.243	4	.748	.719	.541
	Within Groups	387.961	373	1.040		
	Total	387.961	376			
Exposure	Between Groups	3.141	4	1.047	1.282	.280
	Within Groups	304.717	373	.817		
	Total	307.858	376			

Table 4 presents Anova1 data on the difference in perceived barriers to physical activity by age, the total as measured through age, PCE total of sum of squares 332.876, ss total of sum of squares 398.335, physical total of sum of squares 387.961, and exposure total of sum of squares 307.858.

The analysis was used to analyze the total score of each domain. The perception is the most frequently reported barrier, followed by lack of free time, lack of friends, and lack of discipline.

A study by Stephanie A. *et al.* (2017) showed there was about 15% difference in vigorous intensity leisure time physical activity from the 18-19 yrs. to the 25-29 yrs. age groups and a roughly 10% difference in moderate-force relaxation time physical activity. Reviews about gender-related differences from moderate to vigorous physical activity show that males and females have no significant differences in participating in physical activities over time. For all age groups, males exhibited higher engagement rates in vigorous and moderate-intensity activity than females, but females had much higher engagement rates in physical activity. Age-associated differences in activity levels were more apparent for males.

Table 5 presents Anova2 data on the differences in perceived barriers to physical activity by year level, the total as measured through year level, PCE total of sum of squares 332.876, ss total of sum of squares 398.335, physical total of sum of squares 390.204, and exposure total of sum of squares 307.858.

Table 5: Differences in Perceived Barriers to Physical Activity by Year Level

		Sum of Squares	df	Mean Square	F	Sig.
PCE	Between Groups	1.584	3	.528	.595	.619
	Within Groups	331.292	373	.888		
	Total	332.876	376			
SS	Between Groups	2.341	3	.780	.735	.532
	Within Groups	395.994	373	1.062		
	Total	398.335	376			
Physical	Between Groups	1.252	3	.417	.400	.753
	Within Groups	388.952	373	1.043		
	Total	390.204	376			
Exposure	Between Groups	1.393	3	.464	.565	.638
	Within Groups	306.465	373	.822		
	Total	307.858	376			

The analysis was used to analyze the total score of each domain from the point of view the barriers identified in general; they experience a higher level of discomfort and anxiety during physical activity, lack of time, and working students.

Evidence suggests that increasing physical activity and actual wellness may improve scholastic performance and that time in the school day dedicated to breaks, genuine training classes, and physical exercise in the homeroom may improve academic performance. Although academic performance originates from a complicated connection between intellectual and logical factors, well-being is a crucial directing element in a student's capacity to learn Basch (2011). The possibility that healthy students learn better is empirically supported and widely accepted, and several studies have confirmed that physical exercise has medical benefits such as cardiovascular and solid wellness, bone health, psychosocial outcomes, and mental and cognitive well-being. In general, a rapidly developing collection of work recommends that time spent occupied with physical activity is connected not exclusively to a better body but additionally to a healthier mind Hillman *et al.* (2008).

3. Conclusion and Recommendations

After a thorough analysis, the researcher established that the perceived barriers to Physical Activity are high. Moreover, participants perceiving more barriers to physical activity have a higher probability of becoming inactive. Gender, age, and year level are also considerable, implying that they are above the predicted level. Our findings showed that the three variables: physical, cognitive, emotional, lack of social support, physical and exposure were associated with perceived barriers to physical activity.

Our results will hopefully help encourage quality skills practice within university students. Despite the negative effects on physical and mental health and consecutive quality of life. Feeling unable to perform physical activity or thinking that they are not competent in this type of activity. Other reasons, such as the lack of social support, are grouped within perceived barriers as well as the physical environment. All this information will provide guidance to design supportive policies and sports guidelines that help structure a healthier university environment.

The conclusions mentioned above provide a basis to develop an intervention program to promote significant improvement in student's engagement in physical activity. The researchers recommend that the teachers help students overcome these barriers by encouraging students to participate in physical activity and monitor their improvements at the end of every week using the proposal "Personal Physical Fitness Plan". It will help the coalition to prioritize intervention strategies and manage available resources. This assesses the effectiveness of the proposed intervention program that addresses the issue of barriers. It will also increase their confidence and satisfaction in performing physical activity in the process.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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