

LIFESTYLE ATTRIBUTES AND ACADEMIC PERFORMANCE IN PHYSICAL EDUCATION

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ABSTRACT

This study evaluated the lifestyle attributes of the second year Bachelor of Physical education students in terms of rest and recreation, eating habits, stress management, and physical activity. This study answered the following questions: What is the lifestyle attributes of the second year Bachelor of Physical Education students in terms of Rest and Recreation, Eating Habits, Stress Management, and Physical Activity? What is the Academic Performance of college students in Physical Education subjects? Is there a significant relationship between the Lifestyle attributes and the Academic Performance in Physical education subjects? The study was conducted in one of the universities in Bukidnon province. There were 108 participants in the study. The researcher used descriptive statistics analysis such as mean and SD, frequency and percentage, and Pearson-Product Correlation for the third problem. Stress management obtained the highest total mean, while eating habits obtained the lowest total mean. The dominant number of respondents obtained a "very high satisfactory" level. Also, only one respondent got the highest level "excellent" and also one got the lowest level "moderately satisfactory." The result shows that there is a significant relationship between physical activity and academic performance in the physical education subject. Physical activity and academic performance have a positive correlation.

Keywords: *Rest and Recreation, Eating habits, Stress management, Physical activity, Academic performance.*

1. INTRODUCTION

The lifestyle of a college student is said to be different from the lifestyle they used to have when they were still in high school. When they enter college, students make a lot of adjustments since some of them are living away from their families and stay in boarding houses. Many students have difficulty coping with the academic requirement in tertiary education. Some students change their lifestyle, such as their rest and recreation, eating habits, stress management, and physical activity, to survive in their new environment. Knowing the current status of the lifestyle of college students is essential because this has an immense impact on academic performance.

The international view about lifestyle nowadays reveals that the modifiable risk factors for non-communicable diseases, such as diabetes and cardiovascular disease, are a result of unhealthy diet and physical inactivity. The study of Ssewanyana et al. (2018) revealed that students occasionally eat nutritious foods, such as fruits, vegetables, and meat. There is an increasing tendency to consume unbalanced diets with a high intake of carbohydrates, consumption of sugar dense processed foods and drinks, and oily foods. The main sources of physical activity are sports and domestic chores. Bueno (2018) found that

students lack foundations in terms of resiliency, self-efficacy, and grit. The author (Bueno, 2018) added that students tend to panic, get very anxious, and eventually get depressed easily.

Lifestyles have factors to consider. One of these is rest and recreation. Rest like sleeping is classified by two major components: sleep quality that refers to the satisfaction with their sleep experience and sleep quantity or the length of the amount of sleep per night (National Sleep Foundation, 2016). Recreational activities for students may help them to increase and improve their health, which leads to remarkable academic achievements (Kumar, & Mohammad, 2019; Forrester, 2015).

Another factor to consider about lifestyle is eating habits. The change to the independent living during university days is an important event. The food preference of a student is already established, but as they get older and get into different places or situations, this may change. According to Deshpande et al., (As cited in Murmura et al., 2017), food convenience and food certifications are the dominant factors influencing the food preference behavior of the students. Also, food disability and store convenience are the main factors affecting food store selection (Savelli et al., 2017).

The third lifestyle attribute that should be considered is stress management. College is a stressful time for many students as they go through the process of adapting to new educational and social environments. They have to adjust from being away from home, changing their daily routine and facing college life's challenges. Since stress is the natural reaction of our body to a challenge and struggles (M. Maajida et al., 2018), according to the study at the University of Luzon, it was identified that if a student experiences stress, their academic performance will decline. It has a huge impact and factor to consider, and it is being concluded that the main source of the stress among students are academic works (Llego et al., 2019).

The last lifestyle attribute is physical activity. Sedentary lifestyle and obesity are increasing worldwide because of the lack of physical activity. Bailey et al. (2018) concluded that physical and mental illness could be prevented by doing physical activity like walking. Walking has a health benefit that can decrease the risk of obesity, diabetes, heart disease and can improve mood. The main beneficial effect of walking is that it can gain self-efficacy. It shows an evident result that even a simple change in physical activity may have an effect on well-being (Duranso, 2018). Also, hypertension includes no warning signs, and people usually do not realize that they have this illness. Walking shows a positive effect on systolic and diastolic pressure control that leads to stable blood pressure (Gibbons, 2017). Therefore, if a person adds a daily physical activity routine as simple as walking, it may help to prevent this illness. According to Pender (2011), the health promotion model (HPM) makes four assumptions; first is individuals strive to control their behavior, second is individuals work to improve themselves and their environment, third is health professionals, such as nurses and doctors, comprise the interpersonal environment which influences individual behaviors, and lastly self-initiated change of individual and environmental characteristics is essential to the changing behavior. Therefore, each individual has a different preference in their rest and recreation, eating habits, stress management, and physical activity. The health promotion model (HPM) can be used as a basis of the present researcher; that each individual has a different choice of their lifestyle, and it is essential to discover.

This study is anchored on the health promotion model (HPM) by Pender et al. (2011). The theory explains the relationships, individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcome. It focuses on helping people reach a higher level of well-being. It encourages health professionals to provide useful resources to help patients achieve behavior-specific changes. Assumptions are underlying the use of this model. It is understood that people want to manage their behavior and have the drive to do

so. Thus, this is focused to evaluated the lifestyle of the second year Bachelor of Physical Education students in one of the universities in the province of Bukidnon. This study can be a source of data that could guide the school administration towards the understanding of the lifestyle of the second year Bachelor of Physical Education students.

2. METHODS AND MATERIALS

2.1 Research Design and Setting

The study used a descriptive correlation research design. Descriptive correlation research is used when the researcher's concern is to understand the nature, characteristics, components, or aspects of the present situation or phenomenon (Garcia 2003). Further, this study was conducted in one of the universities in Bukidnon. Bukidnon is one of the provinces in Mindanao which is located in Central Mindanao and composed of two cities and 20 municipalities. Bukidnon is the homed of 7 tribes, and it is considered to the food basket of Mindanao. The University offers a tertiary level of education. It is the only university in the Province of Bukidnon that carries the name of Bukidnon in its official name. Intramurals, extramural, and physical education are some physical activities that the university initiates for the students.

2.2 Respondents and Sampling Procedure

The respondents of this study were the second year Bachelor of Physical Education regular students enrolled in the first semester for the school year 2019-2020. Excluded were irregular students and students enrolled in other courses. The respondents were composed of males and females. The study used a purposive sampling procedure.

2.3 Research Instrument

A five-point Likert scale was used to assess habits in sleeping, eating, stress management, and physical activity of second-year Bachelor of Physical Education college students at Bukidnon State University.

The research questionnaire used in the study has been adapted and modified from the book *Activities and assessment manual* of Kotecki and Thomas (2007) and also adapted from the book *HOPE 1 Health-Optimizing Physical Education Fitness*. The item specified in the adapted-modified questionnaire was drawn from the concepts discussed, such in the conceptual framework as well as from the review of related literature. Content validation of the survey instrument was done by a respectable panelist during the research proposal and three experts. After the inputs of experts and finalization of the questionnaire, a reliability test was done through pretesting. After the tabulation of the data, Cronbach's alpha was performed by the university statistician, and the data passed the test.

2.4 Data Gathering Procedure

Before the conduct of the study, the researcher secured permission from the university president. A letter was also sent to the PE department coordinator and the dean of the college. After the approval, researcher scheduled date and time for administration of the survey.

Before the actual data gathering, the researcher gave an assent letter to all prospective participants. All participants were oriented about the purpose and nature of the survey. The

participants were also assured that participation in the study was voluntary and that they can discontinue participating in the study, anytime.

The researcher distributed the questionnaires during PE classes. The respondents were given time to answer the questionnaire and were encouraged to ask questions or clarifications. After the administration of the questionnaires, the researcher collected and retrieved all filled-in questionnaires, tabulated and analyzed the data collected.

The researcher also gathered the first and second-semester grades in physical education subject of the students in their first year and tabulated the responses after which analysis of data was done.

2.5 Statistical Techniques and Methods of Data Analysis

The researcher used descriptive statistics analysis such as the mean and standard deviation. Frequency percentage and Pearson-Product Moment Correlation were also used in this study.

2.6 Research Ethics

This research is approved by the research ethics committee of the department concerned.

3. RESULTS AND DISCUSSION

Table 1: Mean and standard deviation of lifestyle attributes

Indicators	Mean	Sd	Descriptive rating
Rest and Recreation			
1. I sleep between 7 to 9 hours daily.	2.89	1.079	Average
2. I sleep late at night and woke up late in the morning.	2.48	1.018	Sometimes
3. I sleep more hours every weekend than weekdays.	3.69	1.188	Most of the time
4. I deprive my sleep to do other things.	3.07	3.044	Average
5. I use stimulant like energy drink to stay awake while studying.	2.43	1.348	Sometimes
6. I can do more activities if I have good sleep.	4.26	0.890	Most of the time
7. I wake up every morning feeling rested.	3.08	0.866	Average
8. I can manage my time to have enough rest in day time	2.89	0.951	Average
9. I often feel tired during the day.	2.83	0.815	Average
10. I can find time for recreational activities.	3.44	1.016	Average
Over all mean:	3.11		Average
Indicators			
Eating Habits			
1. I drink 6-8 glasses of water each day.	3.57	1.034	Most of the time
2. I eat variety of fruits and vegetables each day.	2.87	0.928	Average
3. I take snacks in between meals.	2.69	1.116	Average
4. I eat unhealthy processed food because it is convenient.(instant noodles, can goods, hotdog)	2.98	1.050	Average
5. I eat at late night if I'm in bad mood	2.29	1.238	Sometimes
6. I cook my own food to insure it is healthy.	2.86	1.180	Average
7. My friends influence my food preference.	2.50	1.106	Average
8. I eat 3 to 6 serving of fruits and vegetables each day.	2.30	0.835	Average
9. I eat 6-8 serving of whole grain product like bread, rice, corn, or root crops each day.	3.19	1.254	Average
10. I eat 3 to 4 serving of protein-rich foods (meat, poultry, eggs, fish, beans, and nuts) each day.	3.21	0.938	Average
Over all mean:	2.85		Average
Indicators			
Stress Management			
1. I feel stress when I am at school	2.70	0.868	Average

2. When I feel stress, I have difficulty concentrating.	3.09	1.037	Average
3. When I feel stress, my appetite is affected (tend to eat more)	3.05	1.241	Average
4. I'd rather be alone when I feel stress.	3.00	1.374	Average
5. I have someone to talk to when I'm stressed.	3.11	1.314	Average
6. I turn to God when I'm stressed.	4.47	0.848	Most of the time
7. I feel pressured from the expectation of my family.	3.27	1.412	Average
8. When I feel stress, I worry all the time	3.28	1.267	Average
9. When I feel stress, I have difficulty in sleeping (cannot get to sleep/stay asleep).	3.00	1.297	Average
10. I easily get stressed	4.11	1.111	Most of the time
Over all mean:	3.31		Average
Indicators	Mean	sd	Descriptive rating
Physical activity			
1. I perform active household chores (mopping or scrubbing floors, cleaning the car, fetching water in a pail) daily.	3.71	1.077	Most of the time
2. I have time to do the household chores.	3.54	1.054	Most of the time
3. I perform at least 30 to 40 minutes of aerobic activities (sports or dance).	3.17	1.044	Average
4. I engage in at least 20 minutes of sustained vigorous activities that result in rapid breathing.	3.01	1.081	Average
5. I perform muscles and bone-strengthening (resistance or weight training) activities.	2.78	1.035	Average
6. I spend in longer than 2 hours per day watching television, playing passive video games, or playing on the computer.	3.07	1.162	Average
7. I follow the guideline of doing physical activity.	3.31	1.045	Average
8. I walk, bike, or take the public transport when going to school.	4.42	1.078	Most of the time
9. I go to fitness gym for my work out.	1.56	0.789	Sometimes
10. I have time for engaging myself to sport, or dance.	2.59	1.009	Average
Over all mean:	3.11		Average
Grand total mean:	3.09		Average

Among the four lifestyle attributes, stress management obtained the highest total mean and described as “average,” which means that the respondents moderately show a healthy and active lifestyle away from stress and diseases and indicator 6 (I turn to God when I am stressed) on stress management got the highest mean among the four lifestyle attributes. Moreover, the eating habits of the respondents obtained the lowest total mean and describes as “average,” which means that it is essential to consider and address action to have a healthier life.

There were 46 out of 108 respondents who obtained “very high satisfactory” with an average grade range of 1.500-1.625. Only one respondent got the highest average grade of 1.125 and also the lowest average grade of 2.375

There is a significant relationship between physical activity and academic performance in physical education subject. Moreover, physical activity and academic performance have a positive correlation.

Problem No. 1: What is the lifestyle attributes of the second year Bachelor of Physical Education students in terms of:

- 1.1 Rest and Recreation;
- 1.2 Eating Habits;
- 1.3 Stress Management; and
- 1.4 Physical Activity?

Lifestyle attributes such as rest and recreation, eating habits, stress management, and physical activity are essential factors to consider in order to have a healthier life. Knowing the current status of the lifestyle of college students is essential. Firstly, Table 1 shows the overall lifestyle attributes of the respondents with a total mean of 3.09 and describes as

“average,” which means that the respondents moderately show a healthy and active lifestyle away from stress and diseases. It implies that the respondents are having a moderate level of lifestyle and may encourage them to exert more effort to level-up into an active healthy lifestyle away from stress and diseases.

Secondly, the table shows that stress management obtained the highest total mean of 3.31 among all the lifestyle attributes, which describe as “average,” which implies that the student moderately shows a healthy and active lifestyle away from stress and diseases. In stress management, indicator number 6 (I turn to God when I am stressed) got the highest mean of 4.47, and a standard deviation of 0.848 describes as “most of the time” among the ten statements. It implies that the respondents have a strong faith in God when they are stressed, and it has a huge impact on every attribute of lifestyle. It also entails that students most of the time show a healthy and active lifestyle away from stress and diseases. It was supported by the study of Davis (2017) that Trust-based prayer expectancies work if a person has a close relationship with God in which a person trusts that God will answer prayers in his set time and his way. There is an indirect effect in which when a person is not attached to God; the person feels more stress. A study found out that a person using Bible-Based Stress Reduction Protocol-Attachment to God (BSRP-AG) improved his attachment to God, psychological well-being, and perception about the quality of life (Kim, 2018). Also, a recent study concluded that if a student has a well-built spirituality, the student is less likely to experience a high level of stress and has a positive outlook about the problems keeping the student away from depression (Yun et al., 2019).

Thirdly, the result reveals that eating habits obtained the lowest total mean of 2.85 and describe as “average,” which implies that the student moderately shows a healthy and active lifestyle away from stress and diseases. The respondents rated the indicator number 5 (I eat at late night if I am in a bad mood) as the lowest mean of 2.29 and a standard deviation of 1.238 and described as “sometimes.” The result implies that respondents are not used to eating at late night if they are in a bad mood, and students sometimes show a healthy eating and active lifestyle away from stress and diseases. Indicator 5 got the lowest mean; it has an immensely positive impact on the respondents. Since most respondents do not eat late at night when they are in a bad mood, they are away from getting overweight and sleep deprivation. Based on the study, university students are from different places, but they have the same dietary patterns, and they only differ in snacking habits Spanos et al., (as cited in Park et al. 2016). It is supported by the study of Drapeau et al. (2017) that the habit of snacking has increased over the past decades, and healthy snacking can be part of a healthy lifestyle without promoting body weight gain. Stress eating is associated with the dampening effect of snacking, and it can lead to obesity. On the contrary, carbohydrates like sugar can enhance the mood of the person and feel relieved (Wouters et al., 2017). Also, persons with higher perceived life stress manifest better reductions in the bad effects of stress if they take comfort in food (Klatzkin et al., 2019). Comfort food like snacks can help a person to be relieved from stress, but it should not be taken late at night.

Fourthly, rest and recreation obtain a mean of 3.11 and describes as “average,” which implies that the student moderately shows a healthy and active lifestyle away from stress and diseases. In rest and recreation, the table shows that indicator number 6 (I can do more activities if I have a good sleep) got the highest mean with 4.26 and a standard deviation of 0.890 and described as most of the time among ten indicators. The implication of the result from the data gathered shows that if the students have a good sleep, they can do more activities and student most of the time shows a healthy and active lifestyle by having a good sleep and participate in recreational activities away from stress and diseases.

The result is supported by the National Sleep Foundation (2016), which states that rest like sleeping is classified by two major components: sleep quality that refers to the satisfaction with their sleep experience and sleep quantity or the length of the amount of sleep per night. Good sleep can be classified by two components: length and quality. Sleep length refers to the amount of sleep one gets per night. Sleep quality, as defined by the National Sleep Foundation (2016), is one's satisfaction with their sleep experience. This satisfaction includes sleep initiation (starting of sleep), sleep maintenance (tossing and turning; waking up throughout the night), sleep quantity (amount of sleep), and the feeling of refreshment upon awakening. A decrease in the length and quality of sleep for an adolescent becomes problematic in terms of general health and overall well-being. Good quality sleep allows our brain to function appropriately, absorb learning, pay attention, make decisions, and be creative throughout the day, according to National Institutes of Health: National Heart, Lung, and Blood Institute (2015).

Lastly, physical activity also gained a mean of 3.11 and describe as "average," which implies that the student moderately shows a healthy and active lifestyle away from stress and diseases. In the physical activity, based on the data gathered, indication number 8 (I walk, bike, or take the public transport when going to school) got the highest mean with 4.42 and a standard deviation of 1.078 and described as most of the time. The result shows that respondents tend to walk, bike, or take public transport when going to school. As observed, the boarding houses of the respondents are near the school, and those respondents that lived a bit far from the school take public transportation like "Motor Rela." The respondent, most of the time, shows a healthy and active lifestyle by spending time for daily exercise away from stress and diseases as simple as walking when going to school.

The result is supported by the study of Bailey et al., (2018) that past time, physical activity like walking can prevent physical and mental illness. Health benefits of exercise as simple as walking can decrease the risk for obesity, diabetes, heart disease and can improve mood. The main beneficial effect of walking is that it can gain self-efficacy. It shows an evident result that even a simple change in physical activity may give an individual a huge effect on well-being (Duranso, 2018). Also, hypertension includes no warning signs, and people usually do not realize that they have this illness. Walking shows a positive effect on systolic and diastolic pressure control that leads to stable blood pressure (Gibbons, 2017). Therefore, if a person adds a daily physical activity routine as simple as walking, it may help to prevent this illness.

Problem No. 2: What is the level of academic performance of the college students in Physical Education subject?

Academic performance is generally measured through continuous assessment and examinations. Physical education subject composed not just of written exams but also several practice exams. It involves the students to participate by performing the skill from the lesson. On the one hand, Table 2 shows the result from the data gathered that 46 out of 108 respondents obtained "very high satisfactory." An average grade range of 1.500-1.625. It implies that respondents demonstrate a broad knowledge of the subject; have a facility in several areas of the discipline; show insights into the relationship between topics.

Table 2: Frequency and percentage of the academic performance in physical education subject

Descriptive rating	Average grade	Frequency	Percent
Excellent	1.125	1	0.93
Outstanding	1.250-1.375	44	40.74
Very High Satisfactory	1.500-1.625	46	42.60
Highly Satisfactory	1.750-1.875	14	12.96
Satisfactory	2.000-2.125	2	1.86
Moderately Satisfactory	2.375	1	0.93
Total		108	100.00

On the other hand, the result shows that there is only 1 out of 108 respondents who got the highest average grade of 1.125 described as “excellent,” which means the student demonstrates mastery of the subject with exceptional knowledge of the field and complete facility using principles. The result of the study also reveals that there were only 1 out of 108 respondents who got the lowest average grade of 2.375 described as “moderately satisfactory” and shows a good understanding and sufficient knowledge of the major topics of the field; less competent and skillful.

Based on the study of Borghouts et al. (2015), gaining knowledge about physical activity and sports are the main goals of physical education subject. It is supported by the study of Zhu (2015), which stated that to have a high grade in physical education subjects you do not need to be athletic, but you should be participative, knowledgeable, and behaving profiles.

Problem no. 3: Is there a significant relationship between the Lifestyle attributes and the Academic performance in Physical education subjects?

Table 3: Correlation and P-value between the lifestyle attributes and the academic performance in physical education subject

Variables	Correlation	p-value	Interpretation	
Grade	Rest & Recreation	0.083	0.393	Not Significant
	Eating habits	0.097	0.316	Not Significant
	Stress Management	-0.052	0.590	Not Significant
	Physical activity	0.247	0.010	Significant

Lifestyle attributes are divided into four parts, such as rest and recreation, eating habits, stress management, and physical activity. As shown in Table 3, out of the four lifestyle attributes, only physical activity showed a significant relationship with a correlation of 0.247, and a p-value of $0.010 < 0.5$ shows evidence for relationship against the null hypothesis. It can be seen from the table that rest and recreation ($r=0.083$; $p \text{ value}=0.393$), eating habits ($r=0.097$; $p \text{ value}=0.316$), and stress management ($r=-0.052$; $p \text{ value}=0.590$) does not have evidence of significant relationship with the academic performance.

The result shows that academic performance may change if the respondent engages in physical activities, whether it is active or sedentary. It implies that if the physical activity is low, then the academic performance will get low also, and if the physical activity is high, the academic performance will get high. Moreover, if a student is athletic or physically active, then physical activities from physical education subjects are simple, and it can increase academic performance. As observed, if a student is athletic and physically active, it is easier for him/her to get a high grade in physical education subjects. It supported the study of

Kohlmann et al., (as cited in Kasten et al., 2017), which concluded that high levels of physical activity like exercises should be sustained in high academic stress periods because it may be able to buffer the depressing effects of stress that can affect the academic performance. Also, if they do sedentary activities like sitting for an extensive period watching television, their academic performance will be affected (Kakinami et al., 2017).

Contrary to the result, if a student will just focus on studying without any vigorous physical activity, he/she will get a higher grade than doing vigorous physical activities (e.g. extreme workout). This is supported by the study of Borghouts et al. (2015) which concluded that gaining knowledge about physical activity and sports are the main goals of physical education subject, not just being physically active. Similarly, the study of Zhu (2015) state that to have high grades in physical education subjects, one does not need to be athletic, but one should be participative, knowledgeable, and behaving profiles.

Several studies conclude that physical activity either had no effect on academic performance or can improve it, like the study of Resaland et al. (2016), which found out that physical activity, does not affect the overall academic performance. Even though there are studies that concluded that physical activity does not affect academic performance, the current result from this study reveals that physical activity has a significant relationship to academic performance. However, some schools allocate time for physical education school-based physical activity so that it will help to increase student's academic performance. The result shows that there is a positive association between school-based physical activity and academic performance (Marques et al., 2017).

4. CONCLUSION

Based on the findings of the study, the following conclusions are drawn:

Firstly, the respondents have a strong faith in God when they are stressed, and this has a huge impact on every attribute of lifestyle. It also entails that student most of the time shows a healthy and active lifestyle away from stress and diseases.

Secondly, the respondents are "moderate" which shows respondents have a proper healthy diet and active lifestyle away from stress and diseases.

Thirdly, the dominant population of the respondents obtained the level of "very high satisfactory" that demonstrates a broad knowledge of the subject; has a facility in several areas of the discipline; shows insights into the relationship between topics; however, there is only one who got "excellent" which means the student demonstrates mastery of the subject with exceptional knowledge of the field and complete facility using principles and lastly, there is also only one respondent got "moderately satisfactory" that serves as the lowest average grade among all the respondents and shows good understanding and sufficient knowledge of the major topics of the field; less competent and skillful.

Fourthly, the result shows that academic performance may change if the respondent engages in physical activities, whether active or sedentary. It implies that if the physical activity is low, then the academic performance will be also low, and if the physical activity is high, the academic performance will also be high.

5. Recommendation

Given the findings and conclusions of the study, the following recommendations are made:

- The school administrator may strengthen the spiritual aspect of the students by promoting spiritual and religious life programs that will allow students to chase their full spiritual

growth. Encourage a school atmosphere that students can freely express their spirituality, religion, and faith.

- The Physical Education Department of Bukidnon State University may utilize the questionnaire from this study upon the start of the semester to evaluate the lifestyle of the college students and address action to the result.
- The second-year Bachelor of Physical Education students may consider improving in their proper diet by eating more nutritious food (fruits and vegetables) than fast food.
- Future research may be on the lifestyle of students and may consider the coping mechanisms of college-bound students, especially those who will be living in dormitories or boarding houses hence will be away from their parents.

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