

# Eating Habits and Level of Participation in Recreational Activities of Public High School Students

Gizelle M. Penuti<sup>1</sup>, Mheriam Mae V. Suico<sup>2</sup>, Anna Laurice M. Pinoc<sup>3</sup>, Kyra Mae C. Tampus<sup>4</sup> and Lloyd Matthew C. Derasin<sup>5</sup>

<sup>1</sup>Bankal National High School

<sup>2</sup>Cabancalan National High School

<sup>3</sup>UP Visayas Tacloban College

<sup>4</sup>Bankal National High School

<sup>5</sup>Cebu Technological University – Naga Extension Campus

**Abstract** – *The study focused on the Eating Habits and Level of Participation in Recreational Activities of Public High School Students. The study employed a descriptive survey design. The study employed purposive sampling, the participants were chosen based on the following criteria: (1) 14 to 18 years of age, (2) Located within Bankal, Lapu-Lapu City, and (3) Junior High School Student. The study found a significant correlation between eating habits and the Level of participation in recreational activity to the Body mass index (BMI) of the respondents. Moreover, the research findings suggested that physical activity is an essential factor in the prevention and management of childhood obesity. Encouraging children to engage in regular physical activity; recreational activities and promoting healthy eating habits are key strategies for preventing and managing childhood obesity. The study has alluded to the importance of physical activity influencing childhood obesity in the sector of Physical Education. This also showed how physical activity has a significant influence on childhood obesity.*

**Keywords:** *Eating Habits, recreational activities, and BMI*

## Introduction

Reduced levels of fitness and physical exercise have sporadic links to childhood obesity. However, little is known about this connection between young Filipinos. Due to environmental changes and the globalization of unhealthy lifestyles, schoolchildren in underprivileged communities still face a risk of chronic malnutrition, especially in junior high school kids. Additionally, physical activity and exercise are proven methods for treating the disease of being overweight and obese. However, dietary changes and consistent exercise are the best ways to manage this illness. Exercise is crucial for overall health as well as for losing weight. Weight loss is aided by a healthy hypocaloric diet, cardiovascular exercise, and cognitive behavioral therapy.

The World Health Organization estimated that there are over millions of obese school-age children in the world and millions of people die annually as a result of obesity, which is associated with the emergence of chronic diseases that have major socioeconomic repercussions. The misconception that obesity is a lifestyle issue that can be treated by eating less and moving more overstates the benefits of exercise while undermining the complexity of the disease.

Additionally, obesity among students is a growing issue, and it's critical to comprehend why. In many nations, obesity, or the condition of having too much body fat stored, is a major public health issue. Poor lifestyle choices, such as an unhealthy diet and insufficient exercise, are the main contributors (Jakicic and Davis, 2011; Piccinno and Colella, 2017).). According to WHO data, in the past few years, obesity has doubled in children and tripled in adolescents worldwide.

In the Philippines, obesity is prevalent among adults which showed a significant increase from 16.6% in 1993 to 31.1% in 2013 and 2015, respectively, compared to the downtrend of chronic energy deficiency in the same age group (Dahly, et al., 2013). In the Western Pacific Region (WPRO) findings, the Philippines had the second-lowest obesity prevalence, affecting 18 million Filipinos. If monetized, obesity costs the Philippines around USD 500 million – 1 billion and 8% of its health care spending – making the country the fourth highest spender for conditions related to obesity that include NCDs such as diabetes, cancer, and CVDs.

The main drivers of overweight and obesity are complicated and multifactorial. In the findings of Dahly, (2009), obesity poses a significant threat to worldwide public health. It is often viewed as a problem that results from a deficiency in a person's character; obesity is the consequence of gluttony and sloth. In the modern world, obesity is mostly caused by two factors: an increase in the consumption of high-fat, energy-dense meals and an increase in physical inactivity (Badrin et.al, 2018). There are no existing policies and programs in the Philippines that tend to the risk factors, including unhealthy diet and physical inactivity. However, according to the WHO NCD Progress Monitor Index (WHO 2017), No policies regarding salt, sodium, saturated fatty acids, or trans fats exist in the nation, and there are no current limitations on the promotion of unhealthy food items to minors.

A study of students who are at risk for obesity can provide valuable insight into the causes and help us identify potential interventions. This study will also explore how physical activity can be used as a tool to prevent obesity in students. By understanding the role of physical activity in student obesity, we can create more effective strategies for addressing this issue. The purpose of this study was to investigate the impact of physical education (PE) on the self-efficacy of overweight learners This study aimed to address this research gap and provide an evidence-based approach to the influence of physical activity on Junior High School students' nutritional status, particularly with respect to obesity. It may also act as the basis for a law that promotes a healthy lifestyle that includes physical activity and nutritious food.

## Methods and Materials

A quantitative research design was adopted for this investigation. According to Burns and Grove (1993), quantitative research is a rigorous, impartial, systematic procedure used to characterize and test correlations as well as look at cause-and-effect interactions among variables. This research is a cross-sectional study that measures units from a sample at one point in time, often used to measure the prevalence of health outcomes, understand determinants of health, and describe features of a population.

This study also employed a descriptive survey design. A survey is used to gather first-hand information about a group that is too big to observe in person (Mouton, 1996). The researchers conducted face-to-face interviews with the respondents after distributing survey questionnaires to them as part of this study's data collection. In this study, the researchers will ask the target respondents for first-hand information. This study employed a non-probabilistic sampling technique in which the samples will be chosen by the researcher. A purposeful sample technique was used to pick all of the respondents. When elements selected for the sample are chosen by the researchers' judgment, purposive sampling is a non-probability sampling method. Researchers often believe that they can obtain a representative sample by using sound judgment, which will result in saving time and money. Thus, participants were chosen based on the following criteria: (1) 14 to 18 years of age, (2) Located within Bankal, Lapu-Lapu City, and (3) Junior High School Student

They were the chosen respondents for this study for the purpose that they would be providing adequate and relevant information with regard to obesity. Furthermore, the researchers will consider a minimum of 100 samples of the population as subjects. The layout of the survey questions consisted mostly of closed-ended questions with multiple-choice answers. This made the survey easy for the target respondents to answer as well as for the researchers' ease of administration and analysis of the results. Provision for additional responses was made where it is necessary so as not to restrict the responses of the respondents.

A pilot survey was conducted to determine the validity and reliability of the instrument. Feedback from respondents of the pilot survey was taken into consideration and errors were revised and improved until no further revisions were considered necessary.

## Results and Discussion

This part presented the analysis and interpretation of all the data gathered. The first table presented the socio-demographic characteristics of the respondent. This is followed by the second table, which presented the eating habits of the respondent, and then followed by the third table, which described the level of participation on recreational activities.

**Table 1: Socio-Demographic Characteristics**

Variable	Category	Frequency	Percentage
Age	14-to-18 years old	223	100%
Sex	Female	141	63.2%
	Male	82	36.8%
BMI	Normal (18.5-24.9)	193	86.5%
	Overweight (25-29.9)	19	8.5%
	Obese (30 and above)	11	4.9%

Table 1 presented the socio-demographics of the respondents. This described that the majority have normal BMI with one-ninety-three (193) respondents, nineteen (19) are overweight and eleven (11) are obese. Likewise, in terms of age distribution, two hundred twenty-three (223) of the respondents are in the age group 14-to-18 years old representing one hundred percent (100%) of the population. In terms of sex, one hundred forty-one or 63.2 percent (%) of the respondents are female and 82 or 36.8% percent (%) are male.

This implied that socio-demographic characteristics have a significant influence on childhood obesity. The findings of Singh et al. (2019) examined the influence of socio-demographic factors on physical activity and obesity among children aged 14 to 18 years. The study found that children from families with this aged group were more likely to engage in physical activity and more likely to be obese. In addition, a study by Nader et al. (2008) found that girls were less likely to engage in moderate-to-vigorous physical activity than boys, which may contribute to higher rates of obesity in girls. Moreover, Body mass index (BMI) is commonly used as an indicator of childhood obesity. The findings of Ogden et al. (2016) found that the prevalence of obesity among children and adolescents increased with increasing BMI.

**Table 2: Eating Habits of the Respondent**

Eating Habits	Weighted Mean	Interpretation
1. How often do you eat meals in a day (including tea, coffee, fruits, salads, and snacks)?	3.24	Average
2. How often do you eat sweets (chocolates, candies, cake, ice cream, etc.) in a day?	3.34	Average
3. How often do you eat healthy foods (fruits and green vegetables) in a day?	3.21	Average
4. How often do you eat out of the house (such as at weddings, parties, family functions, etc.) in a month?	3.37	Average
5. How often do you eat your meal while watching tv/reading/playing video games/chit-chatting?	3.39	Average
6. How often do you drink sweetened beverages like soft drinks, juices, etc.?	3.22	Average
7. How often do you eat junk food?	3.36	Average
8. How often do you eat refined food items like burgers, pizza, etc.?	3.29	Average
<b>Grand Mean</b>	<b>3.29</b>	Average

Table 2 showed the frequency distribution of the eating habits. Questions 1 to 8 garnered 912 answers of “sometimes” which is the highest among other choices. Additionally, the table showed the descriptive statistics of the Eating Habits based on the responses of the respondents specifically, it presented that Eating Habits has a grand mean of 3.29. The transmutation equivalent of this score implied that the statements under Eating Habits are “average” for the respondents.

Higher levels of physical activity were linked to lower levels of body mass index (BMI), according to a study by Zhang et al. (2019). Eating habits have also been discovered to be quite important in the emergence of childhood obesity, in addition to physical activity. Studies have repeatedly demonstrated an increased risk of childhood obesity in children who consume diets high in calories, saturated fat, and added sweets (Magriplis et al., 2021). On the other hand, kids who eat diets rich in fruits, vegetables, and whole grains are less likely to be overweight (Fatahi et al., 2018).

**Table 3. Level of participation in Recreational Activity**

Recreational Activity	Weighted Mean	Interpretation
1. I do not engage in sedentary activities such as watching TV or playing video games	3.26	Average
2. I do exercise twice or more in a week	3.19	Average
3. I play sports	3.24	Average
4. I walk going to school once or twice a week	3.27	Average
5. I engage myself in leisure activities in a week	3.20	Average
6. I do read books and magazines that educate about physical fitness and aerobic exercises a week	3.22	Average
7. I participate in summer sports and dance clinics.	3.23	Average
Grand Mean	3.23	Average

Table 3 showed the frequency distribution of the Recreational Activity. Questions 1 to 7 garnered 753 answers of "often" which is the highest among other choices. Additionally, the table showed the descriptive statistics of the Recreational activity based on the responses of the respondents specifically, it presented that Recreational activity has a grand mean of 3.23. The transmutation equivalent of this score implied that the statements under Recreational activity are "average" for the respondents.

Children who played organized sports had higher levels of muscular strength and cardiorespiratory fitness than children who did not play sports, according to a study by Vella et al. (2014). Salvy et al. (2012) discovered that children who had access to recreational areas like playgrounds and parks were more likely to engage in physical exercise and less likely to be fat than children who did not. Recreational activities have also been shown to improve mental health and general well-being, which lowers the risk of childhood obesity (Simon et al., 2016).

**Table 4. Correlation of Eating habits, Level of Recreational Activity and BMI**

Variables	Pearson's r Coefficient	P value	Decision	Interpretation
Level of Eating Habits and BMI	.345**	.000	Reject the null hypothesis	Significant relationship
Level of Participation in Recreational Activities and BMI	-.536**	.000	Reject the null hypothesis	Significant relationship

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 4 of variable Level of Eating Habits and BMI showed that the significant p-value is .000, which is below the alpha (0.05). This indicates that the level of Physical Activity: Eating habits significantly influence the BMI of the students. According to Schwingshackl and Hoffmann's (2014) systematic review and meta-analysis, consuming more fruits, vegetables, and whole grains was linked to a lower BMI. Conversely, higher BMI was linked to higher intake of processed foods, refined cereals, and beverages with added sugar. It has been discovered that other significant determinants in BMI include the timing and frequency of meals. According to a 2013 study by Jakubowicz et al., eating more at breakfast and less at dinner was linked to a lower BMI. A diet heavy in energy-dense foods, such as those high in fats and sweets, was found to be positively related with BMI, according to a systematic analysis by Smith et al. (2018).

In addition, Table 4 of variable Level of participation in recreational Activities and BMI shows that the significant p-value is .000, which is below the alpha (0.05). This indicates that the level of participation in Recreational Activities significantly influences the BMI of the students. Children who participated in recreational activities had lower BMI and body fat percentages than those who did not, according to a study by Moschonis et al. (2018). Additionally, a study by Petersen et al. (2021) discovered that kids with lower BMIs than those who participated in recreational activities less frequently were regular participants in such activities. Recreational activities' impact on BMI has also been found to be significantly influenced by their accessibility and availability. In a study by Ma et al. (2018), it was discovered that Chinese children with access to parks and playgrounds had lower BMI and body fat percentages than children without such access.

## Conclusion

The research findings suggest that physical activity is an essential factor in the prevention and management of childhood obesity. Encouraging children to engage in regular physical activity; recreational activities and promoting healthy eating habits are key strategies for preventing and managing childhood obesity. The study has alluded to the importance of physical activity influencing childhood obesity in the sector of Physical Education. This also showed how physical activity has a significant influence on childhood obesity.

Future studies may include other schools and cities in the Philippines belonging to a different age bracket to have a wider scope and more representative results. Additionally, this study also did not fully capture the potential of healthcare management in the Philippines. Future researchers could communicate with the Department of Health and other health professionals in the country to validate this study's results. Moreover, this study only talks about the variables of physical activity; eating habits, and recreational activities. Future studies may use other variables that can influence childhood obesity.

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