

Physical Activity Engagement and Lifestyle Habits of Senior High School Students

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ABSTRACT

This study determined the level of Physical Activity Engagement (PAE) and lifestyle habits among selected public Senior High School students in the Division of Bacolod City for Academic Year 2025–2026. Specifically, it examined differences in physical activity engagement and lifestyle habits when respondents were grouped according to school, year level, and academic strand, and determined the relationship between the two variables. The study utilized a quantitative descriptive-comparative-correlational research design. A total of 324 Grade 11 and Grade 12 respondents from selected public Senior High Schools in the Division of Bacolod City offering the HUMSS and TVL strands participated in the study through proportionate stratified random sampling. Data were gathered using an adapted and validated questionnaire on physical activity engagement and lifestyle habits.

Findings revealed that respondents demonstrated a high level of physical activity engagement and high level of lifestyle habits across all grouping variables. Significant differences in physical activity engagement and lifestyle habits were found when respondents were grouped according to school, particularly between School A and School C for physical activity engagement and between School A and the other schools for lifestyle habits. However, no significant differences were found when respondents were grouped according to year level and academic strand. Furthermore, a strong positive and significant relationship was found between physical activity engagement and lifestyle habits ($r = 0.68$, $p < .001$).

The study concluded that increased physical activity engagement is associated with healthier lifestyle habits among Senior High School students. Based on the findings, the ACTIVE SHS Wellness Enhancement Program was proposed to strengthen physical activity participation and promote healthier lifestyle practices, particularly among schools with lower levels of engagement and lifestyle habit scores.

Keywords: Physical Activity Engagement, Lifestyle Habits, Senior High School students, Wellness, Health behavior, Descriptive-comparative-correlational study, Bacolod City, Wellness enhancement program

INTRODUCTION

Physical Activity Engagement (PAE) refers to the degree to which individuals participate in bodily movements that require energy expenditure, such as exercise, sports, recreational play, and daily physical tasks (Luis et al., 2023). The World Health Organization (2023) recommends that adolescents engage in at least 60 minutes of moderate-to-vigorous physical activity daily to support healthy development (Chaput et al., 2020). However, rapid technological advancements and sedentary lifestyle behaviors have contributed to decreased physical activity levels among youth worldwide (van Sluijs et al., 2021).

Lifestyle habits encompass daily routines and behaviors that influence an individual's health and quality of life, including dietary practices, sleep patterns, physical activity, screen time, and stress management (Gao et al., 2024). Healthy lifestyle recovery or improvement refers to the adoption of balanced routines that promote physical and mental wellness, especially among students who face academic pressures and increased exposure to sedentary activities (Herbert, 2022).

Globally, physical inactivity among adolescents has become a major public health concern (van Sluijs et al., 2021). Studies and international reports emphasize the need to monitor youth physical activity levels and promote active lifestyles to prevent non-communicable diseases (Akseer et al., 2020). The World Health Organization (2023) has highlighted the importance of improved measurement and surveillance of adolescent physical activity to address sedentary behavior and ensure proper health interventions (DiPietro et al., 2020).

At the regional or national level, research in the Philippines reveals a significant concern regarding insufficient physical activity among adolescents (Marques et al., 2020). According to recent national data, approximately 75.5% of Filipino adolescents do not meet the recommended levels of daily physical activity, indicating a widespread sedentary lifestyle among youth (Cagas et al., 2022). This alarming trend highlights the need for school-based programs and community interventions that encourage active engagement and healthier lifestyle habits (Yuksel, H. S. et al., 2020).

Internationally, several studies emphasize the importance of promoting physical activity and healthy behaviors among adolescents through policy implementation and structured programs (McHugh et al., 2020). Research examining physical activity among youth highlights the role of educational institutions, social environments, and digital influences in shaping lifestyle habits and engagement in exercise (Goodyear et al., 2021). Moreover, studies on adolescents' social networks and digital interventions show that promoting active lifestyles can improve health behaviors and overall wellness (Chatterjee, A. et al., 2021).

In the local setting, many Senior High School students are increasingly exposed to sedentary behaviors due to prolonged screen time, online activities, academic workloads, and limited participation in regular physical exercise (Javier et al., 2023). Observations within schools reveal that students often spend most of their free time using mobile phones, social media, and digital entertainment rather than engaging in sports or recreational physical activities (Haug, 2024). Additionally, unhealthy lifestyle habits such as irregular sleeping patterns, poor dietary choices, and lack of exercise have become common among adolescents (Song et al., 2023). These situations may negatively affect students' physical health, energy levels, academic performance, and overall well-being. Despite the implementation of Physical Education programs and school wellness activities, there is still a need to assess whether students actively engage in physical activities and practice healthy lifestyle habits (Cruz, 2024).

Hence, this study is deemed relevant in determining the level of physical activity engagement and lifestyle habits among Senior High School students and in providing baseline information for future health and wellness interventions within the school community (van Sluijs et al., 2021).

Despite the increasing body of literature on adolescent physical activity and lifestyle habits, there remains a research gap regarding the combined assessment of physical activity engagement and lifestyle behaviors among Senior High School students, particularly in specific local school contexts (van Sluijs et al., 2021).

Specifically, it seeks to determine students' physical activity participation, identify common lifestyle practices, and analyze the relationship between physical activity engagement and health-related behaviors (Brown et al., 2024). The findings may provide educators, school administrators, and policymakers with insights for developing programs that promote healthy lifestyles and active living among adolescents (Jackson et al., 2024).

This research utilized a quantitative descriptive-comparative-correlational design to collect and analyze data from Senior High School students. Standardized questionnaires, such as physical activity assessment tools and lifestyle habit surveys, were used to gather information. Statistical methods including descriptive statistics, independent samples t-test, Welch t-test, Welch ANOVA, Games–Howell post hoc test, and Pearson product–moment correlation were employed to describe the data, determine significant differences, and examine the relationship between physical activity engagement and lifestyle habits among selected public Senior High School students.

The respondents of the study consisted of selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City, schools offering the Technical-Vocational-Livelihood (TVL) and Humanities and Social Sciences (HUMSS) strands. These respondents were selected because they represent adolescents who are exposed to various academic demands, lifestyle practices, and physical activity experiences that may influence their overall health behaviors and engagement in physical activities. The inclusion of students from different strands and grade levels may provide a broader understanding of the relationship between physical activity engagement and lifestyle habits among Senior High School learners.

Statement of the problem

This study aimed to determine the level of Physical Activity Engagement and lifestyle habits among the selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for academic year 2025-2026.

This study would like to answer the following questions:

1. What is the extent of physical activity engagement among selected public senior high school students when taken as a whole and grouped according to:
 - a. School
 - b. Year level
 - c. Academic Strand
2. What is the extent of lifestyle habits among selected public senior high school students when taken as a whole and grouped according to aforementioned variables?
3. Is there a significant difference in the extent of physical activity engagement of selected public senior high school students when grouped according to aforementioned variables?
4. Is there a significant difference in the lifestyle habits of selected public senior high school students when grouped according to aforementioned variables?
5. Is there a significant relationship between physical activity engagement and lifestyle habits of selected public senior high school students?
6. Based on the results of the study, what intervention or enhancement program may be proposed to promote healthier lifestyle practices among selected public senior high school students?

Hypotheses

1. There is no significant difference in the extent of physical activity engagement among selected public senior high school students when grouped according to school, year level and academic strand.
2. There is no significant difference in lifestyle habits among selected public senior high school students when grouped according to aforementioned variables.
3. There is no significant relationship between physical activity engagement and lifestyle habits of selected public senior high school students.

THEORETICAL FRAMEWORK

The study on Physical Activity Engagement and Lifestyle Habits of Senior High School Students is anchored on the Social Cognitive Theory (SCT) by Albert Bandura (1986) and the Health Belief Model (HBM) by Rosenstock (1974), which provide a framework to understand the behaviors and lifestyle choices of adolescents in relation to physical activity and health.

Social Cognitive Theory (SCT) emphasizes the reciprocal interaction between personal factors, behavioral patterns, and environmental influences in shaping an individual's actions (Bandura, 1986). In the context of SHS students, SCT explains how students' engagement in physical activity is influenced not only by personal motivation, self-efficacy, and perceived competence, but also by social factors such as peer influence, family support, and school environment. For instance, students who observe peers actively participating in sports or

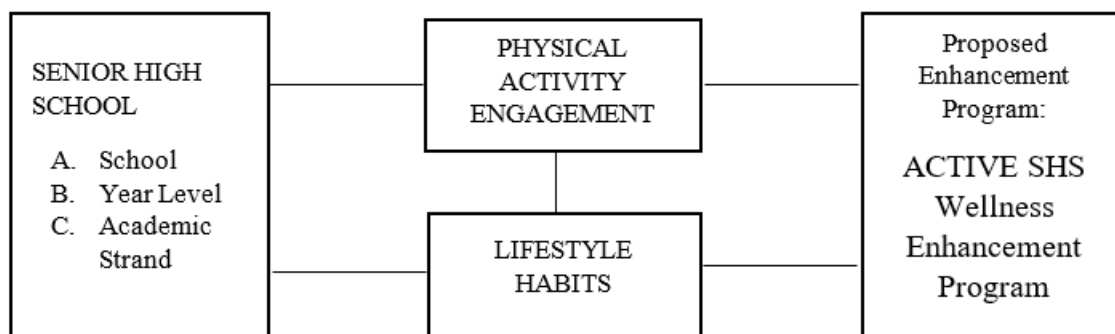
exercise are more likely to adopt similar behaviors, thereby increasing their physical activity engagement. Furthermore, SCT highlights the role of self-regulation and goal-setting, which can explain how students balance academic responsibilities with physical activity and lifestyle recovery routines.

Complementing SCT, the Health Belief Model (HBM) provides a theoretical basis to understand students' lifestyle habits and recovery behaviors. The HBM posits that health-related behaviors are influenced by perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Rosenstock, 1974). Applied to this study, SHS students are more likely to engage in physical activity and adopt healthy lifestyle practices if they believe that such behaviors prevent illness, improve academic performance, and enhance overall well-being. Perceived barriers such as lack of time, academic workload, or limited access to recreational facilities may hinder participation. Cues to action, such as guidance from teachers, school PE programs, or parental encouragement, can trigger the adoption of active and healthy lifestyle habits.

In summary, the Social Cognitive Theory and the Health Belief Model are both relevant to this study because they explain the factors that influence the physical activity engagement and lifestyle habits of Senior High School students. Social Cognitive Theory emphasizes that students' behaviors are shaped by personal motivation, self-efficacy, and environmental influences such as peers, family, and school support. (Islam et al., 2023) Meanwhile, the Health Belief Model explains that students are more likely to practice healthy lifestyle habits and participate in physical activities when they recognize the benefits of these behaviors and understand the possible health risks of inactivity. (King et al., 2014) Together, these theories support the idea that students' physical activity engagement and lifestyle habits are influenced by both social/environmental factors and personal health beliefs, making them appropriate foundations for examining the relationship between physical activity engagement and lifestyle habits among Senior High School students (Hu et al., 2021).

CONCEPTUAL FRAMEWORK

The study is anchored on the premise that physical activity engagement influences the lifestyle habits of selected public Senior High School students. Guided by relevant theories on health behavior and physical activity participation, the framework recognizes that students' physical activity engagement may vary according to selected grouping variables, namely school, year level, and academic strand. These grouping variables are examined to determine possible differences in the level of physical activity engagement and lifestyle habits among respondents. Furthermore, the framework assumes that higher levels of physical activity engagement are associated with healthier lifestyle habits. Figure 1 illustrates the conceptual framework of the study, showing the grouping variables, the major study variables, and the expected relationship between physical activity engagement and lifestyle habits among the selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City.



Schematic Diagram Figure 1. Presents the conceptual framework of the study showing how students' physical activity engagement and lifestyle habits, and the proposed enhancement program.

Scope and Limitation

The study on Physical Activity Engagement and Lifestyle Habits of selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for the academic year 2025–2026 was limited to a descriptive-comparative-correlational design involving a total of 324 selected public Senior High School students as respondents. It focused on assessing the extent of physical activity engagement and lifestyle habits of students both as a whole and when grouped according to school, year level, and academic strand, using an adapted researcher-made instrument. The study aimed to identify significant differences in physical activity engagement and lifestyle habits across the specified groups and determine the relationship between these variables, while proposing possible interventions or enhancement programs based on the findings. Data analysis was confined to quantitative measures using mean, standard deviation, independent samples t-test, Welch t-test, Welch ANOVA, Games–Howell post hoc test, and Pearson product–moment correlation coefficient at the 0.05 level of significance. These statistical procedures were selected based on the nature of the data and the assumptions required for each analysis. Limitations included reliance on self-reported responses, the geographic scope being restricted to selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City, and the exclusion of qualitative insights that could have provided a deeper understanding of the underlying factors affecting physical activity engagement and lifestyle habits.

Significance of the study

This study on Physical Activity Engagement and Lifestyle Habits of selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for the academic year 2025–2026 will be significant to various stakeholders.

For students, the study will provide insights into their own physical activity levels and lifestyle habits, helping them understand the importance of regular exercise, proper recovery, and healthy routines to improve their overall well-being, academic performance, and long-term health.

For teachers, the study will serve as a guide to identify areas where students need support, allowing them to design strategies and classroom activities that encourage active participation and promote healthier lifestyles.

Division of Bacolod City Education Office and other policymakers will gain insights into the current status of student health behaviors, which will help in designing and implementing school programs and interventions aimed at promoting healthier, more active lifestyles among selected public Senior High School students.

For future researchers, the study will provide baseline data and a reference for conducting similar studies on adolescent health, physical activity, and lifestyle habits in other regions or educational settings.

Definition of Terms

Lifestyle Habits. This refers to regular, repeated practices and behaviors that impact an individual's health and well-being, such as eating patterns, physical activity routines, sleep schedules, and stress management strategies (World Health Organization, 2023). As used in the study, this refers to the specific behaviors and routines of SHS students to their health, such as exercise frequency, diet, and sleep, which will be evaluated using a survey questionnaire.

Physical Activity Engagement (PAE). This refers to the level of participation, involvement, and consistency of an individual in performing physical activities and exercises that contribute to health and well-being (Porter, 2026). As used in the study, this refers to the extent to which SHS students actively participate in physical activities both in school and outside school, which will be assessed using a structured survey questionnaire.

Recreation. This refers to activities performed for enjoyment, relaxation, and leisure, often contributing to physical and mental well-being (Ye et al., 2023). As used in the study, this refers to the leisure activities SHS students engage in that may affect their physical activity engagement and lifestyle habits, measured through the survey questionnaire.

Senior High School Students (SHS). This refers to learners enrolled in Grades 11 and 12 under the K–12 educational system of the Philippines. (Ocampo & Buenviaje, 2024) As used in the study, this refers to the selected Grade 11 and Grade 12 students from selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City, particularly those enrolled in the TVL and HUMSS strands, who will serve as the respondents of the study.

School. This refers to an educational institution recognized by the government where organized teaching and learning activities are conducted to facilitate the intellectual, physical, social, and moral development of learners (B.P. 232, 2025). As used in the study, this refers to the selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City, specifically schools offering TVL and HUMSS strands, where the respondents are currently enrolled.

Year Level. This refers to the grade classification or academic stage of students in the educational system. (Lipnevich et al., 2020). As used in the study, this refers to whether the respondents are enrolled in Grade 11 or Grade 12 in selected public Senior High School during the conduct of the study.

Academic Strand. This refers to the specialized track or field of study selected by public Senior High School students based on their interests, skills, and career goals. (Gonzales & Digo, 2024). As used in the study, this refers to the Humanities and Social Sciences (HUMSS) and Technical-Vocational-Livelihood (TVL) strands of the respondents included in the study.

Likert-Type Scale. This refers to a rating scale used to measure respondents' attitudes, perceptions, behaviors, and opinions by allowing them to indicate the degree of their agreement or frequency of occurrence on a set of statements (Joshi et al., 2021). As used in the study, this refers to the five-point rating scale utilized to assess the level of Physical Activity Engagement and Lifestyle Habits among selected public Senior High School students, with responses ranging from 1 (Very Low) to 5 (Very High).

METHODOLOGY

This study aimed to determine the physical activity engagement and lifestyle habits of selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for academic year 2025–2026. Likewise, this chapter presents the research design, respondents of the study, instrument, data gathering procedure, data analysis and ethical procedure.

Design

The research design identified for this study was a descriptive-comparative-correlational design, which referred to a quantitative research approach that aimed to describe the status of variables, compare groups based on specific characteristics, and examine the relationships among variables (Creswell, 2023). In the context of this study, it described the level of physical activity engagement and lifestyle habits of selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for the academic year 2025–2026, compared these variables across groups categorized by school, year level, and academic strand, and analyzed the correlation between physical activity engagement and lifestyle habits. This design was justified because it allowed the researcher to systematically measure, analyze, and interpret data from a sample of 324 students using an adapted researcher-made instrument, thereby providing evidence-based insights into students' health behaviors and informing the development of interventions or enhancement programs to promote healthier lifestyle practices.

Respondents

The population of the study consisted of 2,040 Senior High School students enrolled in the Humanities and Social Sciences (HUMSS) and Technical-Vocational-Livelihood (TVL) strands in selected public Senior High Schools in the Division of Bacolod City during the Academic Year 2025–2026. These schools were chosen

because they offer both HUMSS and TVL strands and represent the target population of the study. The sampling frame was obtained from the official enrollment records provided by the participating schools. The computed sample size was approximately 334 respondents. However, after data screening, retrieval, and validation of completed questionnaires, a total of 324 respondents constituted the final sample of the study.

The respondents were selected using proportionate stratified random sampling. The population was first stratified according to school, year level, and academic strand. Respondents were then randomly selected from each stratum in proportion to its population size to ensure adequate representation of all groups included in the study.

Table 1 Distribution of Respondents

Grouping Variable	N	n	%
School			
School A	927	147	45.37%
School B	279	44	13.58%
School C	570	91	28.09%
School D	263	42	12.96%
Year Level			
Grade 11	1021	163	50.31%
Grade 12	1081	161	49.69%
Academic Strand			
TVL	1143	181	55.86%
HUMSS	897	143	44.14%
Total	2040	324	100%

Research instrument

The research instrument used in this study was an adapted and modified questionnaire designed to gather quantitative data on the level of Physical Activity Engagement and Lifestyle Habits among selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for the Academic Year 2025–2026. The Physical Activity Engagement items were adapted and modified from the International Physical Activity Questionnaire (IPAQ) and the Physical Activity Questionnaire for Adolescents (PAQ-A), while the Lifestyle Habits items were adapted and modified from the Lifestyle and Habits Questionnaire–Brief (LHQ-B).

Initially, the Physical Activity Engagement scale consisted of 20 items, while the Lifestyle Habits scale also consisted of 20 items. During the modification process, each item in both scales was carefully reviewed for relevance, clarity, redundancy, and alignment with the objectives of the study. Items that were repetitive, overlapping in content, or not directly related to the constructs being measured were removed or merged. As a result, both scales were refined from 20 items to 15 items each. Consequently, the final survey instrument consisted of 30 items, comprising 15 items for Physical Activity Engagement and 15 items for Lifestyle Habits, excluding the demographic profile section.

The questionnaire was composed of two main parts.

The first part of the survey was the Demographic Profile. This section gathered the respondents' basic information such as school, year level, and academic strand. These variables were essential for classifying the respondents and for conducting comparative analyses to determine whether significant differences existed in their physical activity engagement and lifestyle habits when grouped according to profile variables.

The second part was the Survey Proper, which was divided into two subparts. The first subpart focused on assessing the level of Physical Activity Engagement and consisted of 15 items that measured students' participation, involvement, frequency, and consistency in physical activities. The second subpart evaluated the respondents' Lifestyle Habits, including nutrition, sleep patterns, stress management, recreation, and other health-related daily routines.

The instrument was selected and modified to align with the objectives and theoretical framework of the study, ensuring that each item appropriately measured the variables under investigation. Furthermore, the questionnaire underwent expert validation by professionals in physical education and research to ensure its content validity, clarity, relevance, and appropriateness. Necessary revisions and recommendations from the validators were incorporated to improve the quality of the instrument, making it suitable for gathering data needed for descriptive, comparative, and correlational analyses.

To interpret the results, the following mean range, verbal interpretation and verbal description will be observed.

Level of Physical Activity Engagement of SHS students		
Table 2: Mean Range	Verbal Interpretation	Verbal Description (Physical Activity Engagement of SHS Students)
1.00–1.80	Very Low	SHS students show very minimal participation in physical activities. They rarely engage in exercises, sports, or movement-based activities, indicating a highly inactive lifestyle.
1.81–2.60	Low	SHS students have low involvement in physical activities. Participation is infrequent and inconsistent, suggesting limited interest or motivation toward active engagement.
2.61–3.40	Moderate	SHS students demonstrate a moderate level of physical activity engagement. They participate occasionally in physical activities but may not maintain regular or consistent involvement.
3.41–4.20	High	SHS students show high engagement in physical activities. They frequently participate in exercises, sports, or active routines, reflecting a generally active lifestyle.
4.21–5.00	Very High	SHS students exhibit very high physical activity engagement. They consistently and actively participate in physical activities, demonstrating strong commitment to an active and healthy lifestyle.
Level of Lifestyle Habits of SHS students		
Table 3 Mean Range	Verbal Interpretation	Verbal Description (Lifestyle Habits of SHS Students)
1.00–1.80	Very Low	SHS students exhibit very poor lifestyle habits. Their daily routines show highly unhealthy behaviors such as irregular eating patterns, lack of physical activity, poor sleep habits, and minimal self-care practices.
1.81–2.60	Low	SHS students demonstrate low-quality lifestyle habits. Unhealthy behaviors are more common than healthy ones, and positive routines such as exercise, balanced diet, and proper rest are inconsistently practiced.
2.61–3.40	Moderate	SHS students show moderately healthy lifestyle habits. They maintain a balance between healthy and

		unhealthy behaviors, although consistency in good practices such as exercise, nutrition, and sleep is still developing.
3.41–4.20	High	SHS students display high-quality lifestyle habits. They regularly practice healthy behaviors such as balanced diet, adequate sleep, stress management, and consistent physical activity, indicating a generally healthy lifestyle.
4.21–5.00	Very High	SHS students demonstrate excellent lifestyle habits. They consistently engage in highly healthy routines, including proper nutrition, regular exercise, sufficient rest, and strong self-care discipline, reflecting an optimal and well-balanced lifestyle.

Validity

Validity refers to the ability of a research instrument to accurately measure the variables it is intended to measure. To ensure the appropriateness of the research instrument, its validity was established through expert evaluation (Rodenas and Menes, 2026) . Ten professionals in the fields of physical education, health, and research assessed each item for clarity, relevance, and alignment with the study objectives using Lawshe’s Content Validity Ratio (CVR). The instrument obtained a validity index of 0.94, indicating a high level of content validity and confirming that the items are suitable for measuring the intended variables of the study.

Reliability

Reliability refers to the consistency and stability of a research instrument in producing similar results when used under the same conditions. It indicates that the items in the instrument measure the intended variables consistently and dependably (Rodenas, 2025). To determine the reliability of the instrument, a pilot test was conducted among selected public Senior High School students who were not included in the actual respondents of the study. Cronbach’s alpha was used to assess the internal consistency reliability of the instrument, as it is appropriate for Likert-type scales measuring latent constructs through multiple related items. The Physical Activity Engagement scale (Part II) demonstrated excellent reliability ($\alpha = .90$), while the Lifestyle Habit scale (Part III) showed good reliability ($\alpha = .88$). These indicate that the items within each scale are internally consistent and reliably measure their respective constructs.

Data-gathering Procedure

Data-gathering procedure of this study was divided into three phases: the pre-survey phase, the survey proper phase, and the post-survey phase to ensure the systematic, ethical, and accurate collection of data from the respondents. During the pre-survey phase, the researcher first secured approval from the Schools Division Superintendent of Bacolod City and the respective school principals to conduct the study among selected public Senior High School students. Prior to the conduct of the survey, ethical considerations were observed by informing the participants about the purpose of the study, the voluntary nature of their participation, their right to withdraw from the study at any time without any penalty, and the confidentiality of their responses. For respondents who were minors, parental consent and participant assent were secured before participation. Orientation sessions were conducted with teachers and students to explain the objectives and procedures of the study, as well as the measures taken to protect the privacy and anonymity of the respondents. The research instrument underwent expert validation using Lawshe’s Content Validity Ratio (CVR) by ten specialists and was pilot-tested among 30 non-actual respondents from another school to establish reliability using Cronbach’s Alpha. Necessary revisions and refinements were made based on the feedback to ensure the validity and reliability of the final instrument.

During the survey proper phase, the validated questionnaires were distributed to the 324 selected public Senior High School respondents. Before answering the questionnaire, the participants were again reminded that their participation was voluntary and that all information gathered would be treated with strict confidentiality and used solely for academic purposes. To ensure anonymity, respondents were not required to write their names or any identifying information on the questionnaire. The researcher and cooperating teachers supervised the data collection process to ensure that respondents clearly understood each question and answered honestly without coercion or undue influence. Adequate time was provided for the completion of the survey, and all accomplished questionnaires were carefully collected to prevent loss or damage.

In the post-survey phase, the gathered data were checked for completeness and accuracy before being encoded for statistical analysis. The researcher ensured that all collected data were securely stored and accessible only to authorized individuals involved in the study. The data were analyzed using mean, standard deviation, independent samples t-test, Welch t-test, Welch ANOVA, Games–Howell post hoc test, and Pearson product–moment correlation coefficient to answer the statement of the problem. The findings were subsequently interpreted and summarized to draw conclusions and formulate appropriate recommendations. Throughout the entire research process, the researcher strictly observed ethical principles by safeguarding the confidentiality, privacy, and anonymity of the respondents. The results were reported in aggregate form without identifying any individual participant. Data confidentiality and anonymity were strictly maintained throughout the study. The findings were used solely for academic purposes and for informing possible development of intervention programs aimed at promoting physical activity and healthy lifestyle habits among selected public Senior High School students.

Statistical Treatment

To determine the level of physical activity engagement among selected public Senior High School students when taken as a whole and when grouped according to school, year level, and academic strand, mean and standard deviation were used to describe the extent of their engagement. Likewise, to determine the level of lifestyle habits among selected public Senior High School students when taken as a whole and when grouped according to the aforementioned variables, mean and standard deviation were used to describe the degree of their lifestyle habits.

Prior to inferential analysis, the data were tested for normality using the Shapiro–Wilk test and for homogeneity of variance using Levene’s test to determine the appropriate statistical tests to be applied. Although the Shapiro–Wilk test indicated significant deviations from normality in some variables, parametric tests were still applied due to the relatively large sample size, in line with the Central Limit Theorem, which states that the sampling distribution of the mean tends to approximate normality as sample size increases. In addition, the data were examined for skewness, kurtosis, and the presence of extreme outliers, and no severe violations were observed. Hence, parametric tests were considered robust and appropriate for the analysis of this study.

To determine the significant difference in the level of physical activity engagement among selected public Senior High School students when grouped according to school, year level, and academic strand, the following statistical tests were used: mean and standard deviation for descriptive analysis, and independent samples t-test, Welch t-test, and Welch ANOVA for inferential analysis depending on the assumptions of normality and homogeneity of variance. When significant differences were found in Welch ANOVA, the Games–Howell post hoc test was used for pairwise comparisons.

Similarly, to determine the significant difference in the level of lifestyle habits among selected public Senior High School students when grouped according to school, year level, and academic strand, independent samples t-test and Welch ANOVA were also applied depending on the fulfillment of statistical assumptions. For post hoc analysis, Games–Howell test was used when appropriate.

To determine the relationship between physical activity engagement and lifestyle habits of selected public Senior High School students, Pearson product-moment correlation coefficient was used when both variables were normally distributed. All analyses were tested at a 0.05 level of significance.

Finally, based on the results of the statistical analyses, an intervention or enhancement program was proposed as a basis for promoting healthier lifestyle practices among the selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City.

Ethical Consideration

The researcher ensured that the study adhered to strict ethical considerations to protect the rights and welfare of all participants. Prior to the commencement of any participant contact or data collection, the study protocol—including the research narrative, consent form, and survey instrument—was formally submitted to the La Consolacion College Bacolod Institutional Review Board (IRB). No research activities began until written IRB clearance was obtained. Any amendments to the protocol or consent materials were likewise submitted for IRB review and continuing-review reports were filed as required until study closure.

Prior to data collection, formal permission was also sought from the Schools Division Superintendent and the participating school administrators. Respondents were informed about the purpose, objectives, and procedures of the study, and their voluntary participation was emphasized through a signed informed consent form. They were assured of the confidentiality and anonymity of their responses, as no identifying information was included in the questionnaire. The researcher guaranteed that the collected data were used solely for academic purposes and were treated with the highest level of integrity and privacy. Participants were informed that they had the right to withdraw from the study at any time without any consequences. By upholding these ethical standards, the study ensured fairness, respect, and protection of all individuals involved throughout the research process.

RESULTS AND DISCUSSIONS

This study aimed to determine the level of Physical Activity Engagement and lifestyle habits among selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City for academic year 2025-2026. The researcher utilized the descriptive comparative and correlational research design to achieve the study. This chapter focuses on showing, analyzing, and explaining the data collected for this study. It presents the results using statistical methods to describe and understand information about the research problem.

This table answers Statement of the Problem which determines the level of physical activity engagement among selected public Senior High School students when grouped according to school.

Table 4 Descriptive Statistics of Physical Activity Engagement by School

School	n	M	SD
School A	147	3.58	0.67
School B	44	3.76	0.67
School C	91	4.05	0.60
School D	42	3.82	0.59

Note: Legend: Very High Extent (4.21-5.00); High Extent (3.41-4.20); Moderate Extent (2.61-3.40); Poor Extent (1.81-2.60); Very Poor Extent (1.00-1.80)

The table presents the descriptive statistics of physical activity engagement among students across four schools. Based on the given legend, all schools fall under the high extent category of physical activity engagement.

Among them, School C recorded the highest mean score ($M=4.05$, $SD=0.60$), indicating the highest level of engagement. This is followed by School D ($M=3.82$, $SD=0.59$) and School B ($M=3.76$, $SD=0.67$), both still within the high extent range. Meanwhile, School A obtained the lowest mean score ($M=3.58$, $SD=0.67$), although it still falls under the high extent classification. The standard deviations are relatively close, suggesting that the responses within each school are consistently distributed.

These findings imply that students across all schools generally demonstrate a high level of engagement in physical activities, which may reflect the effectiveness of school programs, physical education curricula, and extracurricular opportunities. The higher engagement observed in School C may indicate stronger institutional support, better facilities, or a more active school culture that promotes participation. On the other hand, although School A also falls within the high extent, its comparatively lower mean may suggest areas for improvement, such as enhancing student motivation or increasing access to physical activity programs.

The findings of this study are consistent with those of Roccliffe et al. (2024), who reported that supportive school environments, availability of sports facilities, and well-implemented physical education programs contribute to higher levels of student engagement in physical activity (Phelps et al., 2024). Recent studies confirm that elements within the school environment, such as access to facilities, structured programs, and supportive policies, are significantly associated with higher levels of physical activity among students (Sales et al., 2023). Additionally, research highlights that well-designed school spaces and environments that provide diverse opportunities for movement can enhance students' participation in moderate-to-vigorous physical activity (Kjønniksen et al., 2022). Furthermore, school-based physical activity programs have been shown to positively influence students' activity levels and promote healthier lifestyles (Schirmer et al., 2023). However, some studies present contrasting findings, suggesting that factors such as socio-economic status, family background, and individual preferences may play a more significant role than school influence. For instance, longitudinal research indicates that physical activity levels may decline over time despite the presence of supportive school environments, highlighting the influence of external and personal factors beyond the school setting (Hunter et al., 2023).

This table answers Statement of the Problem which determines the level of physical activity engagement among selected public Senior High School students when grouped according to year level.

Table 5 Descriptive Statistics of Physical Activity Engagement by Year Level

Year Level	n	M	SD
Grade 11	163	3.73	0.66
Grade 12	161	3.80	0.68

Note: Legend: Very High Extent (4.21-5.00); High extent (3.41-4.20); Moderate Extent (2.61-3.40); Poor Extent (1.81-2.60); Very Poor Extent (1.00-1.80)

The table presents the descriptive statistics of physical activity engagement among students when grouped according to year level. Both Grade 11 and Grade 12 students fall under the high extent category based on the given legend. Grade 12 students obtained a slightly higher mean score ($M=3.80$, $SD=0.68$) compared to Grade 11 students ($M=3.73$, $SD=0.66$), indicating a marginally higher level of engagement in physical activities. The standard deviations for both groups are nearly similar, suggesting a consistent distribution of responses within each year level.

The findings of this study suggest that greater health consciousness may encourage higher levels of physical activity engagement. The slightly higher engagement among Grade 12 students may indicate increased awareness of health benefits, better time management, or greater involvement in school-related activities as they approach graduation. However, the minimal difference between the two groups also suggests that year level may

not be a strong determinant of physical activity engagement, as both groups are similarly influenced by common school and environmental factors.

Furthermore, these findings suggest that greater health consciousness may encourage higher levels of physical activity engagement, indicating that older students tend to develop greater awareness and responsibility toward health, which can lead to increased participation in physical activities (Brauner et al., 2013). Recent longitudinal and cross-sectional studies show that improvements in physical literacy, fitness awareness, and health-related behaviors during adolescence are associated with sustained or increased physical activity levels (de Almeida & Noll, 2024). Additionally, evidence suggests that maintaining or improving physical fitness across adolescence is linked with better overall health behaviors and continued engagement in physical activity (van Sluijs et al., 2021).

On the other hand, some studies contradict these findings by suggesting that physical activity tends to decline as students' progress to higher grade levels due to increased academic demands and responsibilities, which may limit time, energy, and motivation for exercise (Rao, 2024). Recent longitudinal research also supports this decline, showing a significant reduction in moderate-to-vigorous physical activity and an increase in sedentary behavior as adolescents age, particularly during the transition to higher school levels (Farooq et al., 2019).

This table answers Statement of the Problem which determines the level of physical activity engagement among selected public Senior High School students when grouped according to academic strand.

Table 6 Descriptive Statistics of Physical Activity Engagement by Academic Strand

Academic Strand	n	M	SD
HUMSS	143	3.74	0.67
TVL	181	3.79	0.67

Note: Legend: Very High Extent (4.21-5.00); High extent (3.41-4.20); Moderate Extent (2.61-3.40); Poor Extent (1.81-2.60); Very Poor Extent (1.00-1.80)

The table presents the descriptive statistics of physical activity engagement among students when grouped according to academic strand. Both HUMSS and TVL students fall under the high extent category based on the given interpretation scale. Among the two groups, TVL students obtained a slightly higher mean score ($M = 3.79$, $SD = 0.67$) compared to HUMSS students ($M = 3.74$, $SD = 0.67$), indicating a marginally higher level of engagement in physical activities. The identical standard deviation values suggest that the variability of responses in both groups is consistent.

These findings imply that, regardless of academic strand, students generally maintain a high level of participation in physical activities. The slightly higher engagement among TVL students may be attributed to the practical and hands-on nature of their strand, which often involves activities that encourage physical movement and applied learning experiences. Meanwhile, the minimal difference between the two groups suggests that academic strand may not be a strong determining factor in physical activity engagement, as students from both strands are likely exposed to similar school-based opportunities and environmental influences that promote active participation.

Furthermore, the findings of this study suggest that students enrolled in skill-based and vocational programs may demonstrate higher levels of physical activity due to the practical nature of their learning experiences (Kirschner et al., 2022). However, some studies contradict these findings by indicating that academic strand has little to no significant effect on physical activity engagement, emphasizing instead the role of personal interest, lifestyle choices, and environmental factors as stronger determinants of student participation (Al-Tameemi et al., 2023). Similarly, Hu et al. (2021) emphasized that physical activity engagement among adolescents is strongly influenced by social and environmental factors, including access to opportunities, support systems, and school-

related contexts, rather than academic classification alone. This reinforces the idea that structured opportunities and supportive environments play a more critical role in shaping students' physical activity behaviors.

This table answers Statement of the Problem which determines the level of lifestyle habits among selected public Senior High School students when grouped according to school.

Table 7 Descriptive Statistics of Lifestyle Habits by School

School	n	M	SD
School A	147	3.92	0.62
School B	44	4.20	0.53
School C	91	4.27	0.52
School D	42	4.15	0.42

Note: Legend: Very High Extent (4.21-5.00); High extent (3.41-4.20); Moderate Extent (2.61-3.40); Poor Extent (1.81-2.60); Very Poor Extent (1.00-1.80)

The table presents the descriptive statistics of lifestyle habits among students from four different schools. Based on the given interpretation scale, School B ($M = 4.20$, $SD = 0.53$), School C ($M = 4.27$, $SD = 0.52$), and School D ($M = 4.15$, $SD = 0.42$) fall under the high extent to very high extent range of lifestyle habits, while School A ($M = 3.92$, $SD = 0.62$) is classified under the high extent category. Among the four schools, School C obtained the highest mean score, indicating the strongest level of positive lifestyle habits, while School A recorded the lowest mean. The standard deviations show relatively low variability across schools, suggesting fairly consistent responses among students.

These findings imply that students across all schools generally demonstrate positive lifestyle habits, with only slight variations in the level of engagement. The higher mean scores in School C, School B, and School D suggest that these schools may provide stronger support systems, health-related programs, or environments that encourage healthier routines. Meanwhile, School A, although still within a high extent level, may benefit from strengthened interventions to further improve students' lifestyle practices. Overall, the findings suggest that school context may contribute to shaping lifestyle habits, but the differences are not large enough to indicate drastic disparities.

Some studies may support these findings by showing that schools with active health education programs, structured physical activities, and supportive learning environments tend to produce students with better lifestyle habits and healthier routines. These studies emphasize the role of school influence in shaping behavior. (Kumari & Biswas, 2023) On the other hand, some research may contradict these findings by arguing that lifestyle habits are more strongly influenced by external and personal factors such as family upbringing, socioeconomic conditions, peer influence, and individual discipline, suggesting that school affiliation alone may not significantly determine students' lifestyle behaviors (Katainen and Gronow, 2023).

This table answers Statement of the Problem which determines the level of lifestyle habits among selected public Senior High School students when grouped according to year level.

Table 8 Descriptive Statistics of Lifestyle Habits by Year Level

Year Level	n	M	SD
Grade 11	163	4.06	0.62
Grade 12	161	4.12	0.53

Note: Legend: Very High Extent (4.21-5.00); High Extent (3.41-4.20); Moderate Extent (2.61-3.40); Poor Extent (1.81-2.60); Very Poor Extent (1.00-1.80)

The table presents the descriptive statistics of lifestyle habits according to year level. Both Grade 11 ($M = 4.06$, $SD = 0.62$) and Grade 12 ($M = 4.12$, $SD = 0.53$) fall under the high extent category based on the interpretation scale. This indicates that students from both year levels generally demonstrate positive lifestyle habits. However, Grade 12 obtained a slightly higher mean compared to Grade 11, suggesting marginally better lifestyle practices among senior students. The standard deviations also show moderate variability, with Grade 11 having slightly more dispersed responses than Grade 12.

These findings imply that students' lifestyle habits may slightly improve as they progress to a higher year level. The small difference in means suggests that Grade 12 students may have developed better routines or become more conscious of their health and daily habits due to increased maturity or academic experience. However, since both groups fall within the same descriptive category, the difference is minimal, indicating that year level alone may not strongly influence lifestyle habits. Other factors such as environment, peer influence, and personal discipline may also play significant roles.

Some studies may support these findings by suggesting that older students tend to develop more structured and health-conscious lifestyles due to increased responsibility, exposure to health education, and greater independence (Zadworna, 2020). Conversely, other research may contradict these findings by indicating that lifestyle habits often decline in higher year levels due to increased academic workload, stress, and time constraints, which may reduce opportunities for healthy behaviors such as exercise, proper sleep, and balanced routines (David et al., 2024).

This table answers Statement of the Problem which determines the level of lifestyle habits among selected public Senior High School students when grouped according to academic strand.

Table 9 Descriptive Statistics of Lifestyle Habits by Academic Strand

Academic Strand	n	M	SD
HUMSS	143	4.12	0.51
TVL	181	4.07	0.62

Note: Legend: Very High Extent (4.21-5.00); High Extent (3.41-4.20); Moderate Extent (2.61-3.40); Poor Extent (1.81-2.60); Very Poor Extent (1.00-1.80)

The table presents descriptive statistics of lifestyle habits according to academic strand. HUMSS obtained a mean score of 4.12 ($SD = 0.51$), while TVL obtained a mean score of 4.07 ($SD = 0.62$). Based on the interpretation scale, both strands fall under the high extent category, indicating that students from both HUMSS and TVL generally exhibit positive lifestyle habits. However, HUMSS has a slightly higher mean compared to TVL, suggesting a marginally better level of lifestyle practices. In terms of variability, TVL shows a higher standard deviation, indicating more diverse responses among its students.

These findings imply that academic strands have only a slight influence on students' lifestyle habits. The close mean values suggest that both HUMSS and TVL students maintain generally similar lifestyle behaviors despite differences in academic focus. The slightly higher score in HUMSS may indicate that students in this strand are more exposed to discussions or awareness to health, well-being, and social behavior. Meanwhile, the greater variability in TVL suggests that students in this strand may have more diverse routines, possibly influenced by the hands-on and skill-based nature of their training.

Some studies may support these findings by suggesting that academic programs can influence students' lifestyle habits, particularly when certain strands incorporate subjects or activities that promote awareness of health and wellness, leading to more positive behaviors (Masini et al., 2024). However, other research may contradict these findings by stating that academic strand has minimal impact on lifestyle habits, emphasizing instead that personal

motivation, family background, peer influence, and socioeconomic conditions are stronger determinants of students' daily routines and health-related behaviors (David et al., 2024).

This table answers Statement of the Problem which determines whether there is a significant difference in physical activity engagement among students when grouped according to school.

Table 10 Welch ANOVA for Differences in Physical Activity Engagement by School

Source	F	df	p
School	10.50	3, 115.90	< .001

Note. Welch correction applied.

The findings of the Welch ANOVA show that there is a statistically significant difference in physical activity engagement among students when grouped according to school, as indicated by $F(3, 115.90) = 10.50, p < .001$. This suggests that at least one school differs significantly from the others in terms of students' level of physical activity engagement. The use of the Welch correction further confirms that the findings remain robust even when the assumption of equal variances is not met.

This finding implies that the school environment plays an important role in shaping students' physical activity engagement. Differences may be influenced by variations in school facilities, physical education programs, extracurricular sports opportunities, or school culture that promotes active lifestyles. It suggests that students' engagement in physical activity is not uniform and may be significantly affected by institutional factors rather than individual factors alone.

Some studies support these findings by showing that schools with stronger physical education programs, better sports facilities, and more active school initiatives tend to produce students with higher physical activity levels (Roccliffe et al., 2024). However, other research contradicts this by arguing that school affiliation is not a major determinant of physical activity engagement, emphasizing instead that personal motivation, peer influence, and lifestyle choices have a stronger impact than the school itself (Shao & Zhou, 2023). Similarly, findings suggest that environmental and psychosocial factors outside the school context play a more consistent role in shaping adolescents' physical activity behaviors than institutional differences. (Rahmania, 2024)

This table answers Statement of the Problem which determines whether there is a significant difference in physical activity engagement among students when grouped according to school.

Table 11 Games-Howell Post Hoc Comparisons for Physical Activity Engagement by School

Comparison	Mean Difference	p
School A vs School B	-0.18	.380
School A vs School C	-0.47	< .001
School A vs School D	-0.24	.149
School B vs School C	-0.29	.063
School B vs School D	-0.06	.970
School C vs School D	0.23	.214

The Games-Howell post hoc results indicate that there is a statistically significant difference in physical activity engagement only between School A and School C ($p < .001$), with a mean difference of -0.47. This suggests that students from School C have significantly higher physical activity engagement compared to those from School

A. All other pairwise comparisons, including School A vs School B ($p = .380$), School A vs School D ($p = .149$), School B vs School C ($p = .063$), School B vs School D ($p = .970$), and School C vs School D ($p = .214$), did not show statistically significant differences, indicating comparable levels of physical activity engagement among these groups.

This finding is supported by research indicating that students' intrinsic motivation, emotions, and self-perceptions strongly influence their participation in physical activity regardless of environmental conditions. The significant difference suggests that school-specific factors—such as facilities, physical education implementation, or extracurricular sports programs—may be more developed or effectively implemented in School C compared to School A. However, since most comparisons are not significant, it also suggests that school affiliation alone may not be a strong determinant of physical activity engagement, and individual or environmental factors may play a larger role.

Studies supporting these findings indicate that variations in school resources, facilities, and physical education programs significantly influence students' physical activity engagement. For instance, research has shown that school environment factors such as policies, supervision, and access to facilities are differences in students' physical activity engagement (Hu et al., 2021). Similarly, classroom design and instructional practices can create more opportunities for movement, further affecting activity levels among students (Hartikainen et al., 2022). However, other studies present contrasting evidence, suggesting that individual factors may play a more dominant role. Research highlights that students' intrinsic motivation, emotions, and self-perceptions strongly influence their participation in physical activity, regardless of environmental conditions. (Wang & Chen, 2024) These findings imply that personal motivation, peer influence, and lifestyle habits may have a greater impact on physical activity engagement than school-related factors alone (Brown et al., 2024).

This table answers Statement of the Problem which determines whether there is a significant difference in physical activity engagement among students when grouped according to year level.

Table 12 Independent Samples t-Test for Physical Activity Engagement by Year Level

Variable	t	df	p
Engagement	-0.92	322	.356

No statistically significant difference in physical activity engagement was found when students were grouped according to year level ($t = -0.92$, $df = 322$, $p = .356$). This indicates that the level of physical activity engagement is relatively similar across the year levels compared, and that any observed difference in mean scores is not strong enough to be considered statistically meaningful.

These findings imply that year level does not significantly influence students' physical activity engagement. This suggests that students, regardless of whether they are in lower or higher year levels, tend to engage in physical activity at comparable levels. It may also indicate that school-based programs, access to facilities, and external factors such as lifestyle and personal interest influence students similarly across year levels, rather than academic progression being a determining factor.

Furthermore, studies supporting these findings suggest that physical activity engagement remains relatively stable across year levels, with participation being influenced more by personal motivation, peer support, and environmental opportunities than by academic progression (Luis et al., 2023). Research also indicates that social factors and access to physical activity opportunities play a more significant role in shaping students' engagement than their grade level (Hu et al., 2021).

On the other hand, some studies contradict these findings by demonstrating that physical activity tends to decline as students' progress to higher year levels (van Sluijs et al., 2021). Evidence shows that increased academic

workload, time constraints, and academic pressure contribute to reduced participation in physical activity among older adolescents (Dilbar, 2024).

This table answers Statement of the Problem which determines whether there is a significant difference in physical activity engagement among students when grouped according to Academic Strand.

Table 13 Independent Samples t-Test for Physical Activity Engagement by Academic Strand

Variable	t	df	p
Engagement	-0.58	322	.560

No statistically significant difference in physical activity engagement was found when students were grouped according to academic strand ($t = -0.58$, $df = 322$, $p = .560$). This indicates that students from both HUMSS and TVL demonstrated comparable levels of physical activity engagement, and the observed difference in their mean scores was not statistically significant.

These findings suggest that academic strand is not a determining factor in students' physical activity engagement. Students enrolled in both HUMSS and TVL appeared to participate in physical activities at similar levels, which may reflect comparable school environments, access to physical activity opportunities, and other personal or social factors that were not directly examined in this study. Therefore, initiatives designed to enhance students' physical activity engagement may be more effective when they focus on factors such as intrinsic motivation, peer support, family influence, and supportive school environments rather than on academic strand alone.

The present findings are consistent with Lin et al. (2024), who found that personal and social factors, including self-efficacy, enjoyment, and peer encouragement, are stronger predictors of physical activity engagement than demographic or academic characteristics. However, these findings differ from those of Wilson et al. (2021), who suggested that increased academic workload, stress, and time constraints may reduce students' opportunities to engage in regular physical activity. This discrepancy may indicate that, within the present study, differences in academic strand were not substantial enough to influence students' physical activity engagement, whereas other contextual and individual factors may have played a greater role.

This table answers Statement of the Problem which determines whether there is a significant difference in lifestyle habits among students when grouped according to school.

Table 14 Welch ANOVA for Differences in Lifestyle Habits by School

Source	F	df	p
School	7.87	3, 123.10	< .001

Note. Welch correction applied.

The findings of the Welch ANOVA indicate that there is a statistically significant difference in lifestyle habits among students when grouped according to school ($F = 7.87$, $df = 3, 123.10$, $p < .001$). This suggests that at least one school differs significantly from the others in terms of students' lifestyle habits. The use of the Welch correction further confirms that the difference is reliable even when the assumption of equal variances is not met.

These findings imply that the school environment plays an important role in shaping students' lifestyle habits. Differences in school policies, academic workload, physical education programs, extracurricular activities, and available facilities may contribute to variations in how students manage their daily routines, health behaviors, and overall lifestyle. This suggests that improving school-based programs and environments could help promote healthier and more balanced lifestyle habits among students.

In contrast, some research may disagree by arguing that lifestyle habits are more strongly influenced by personal, family, and socioeconomic factors rather than the school itself, suggesting that differences between schools may not always lead to significant variations in student behavior (Arafa et al., 2024).

This table answers Statement of the Problem which determines whether there is a significant difference in lifestyle habits among students when grouped according to school.

Table 15 Games–Howell Post Hoc Comparisons for Lifestyle Habits by School

Comparison	Mean Difference	p
School A vs School B	-0.279	.021
School A vs School C	-0.348	< .001
School A vs School D	-0.230	.032
School B vs School C	-0.069	.892
School B vs School D	0.049	.964
School C vs School D	0.118	.510

The Games–Howell post hoc findings indicate that significant differences in lifestyle habits are mainly observed between School A and the other schools. School A shows significantly lower lifestyle habit scores compared to School B (mean difference = -0.279, $p = .021$), School C (mean difference = -0.348, $p < .001$), and School D (mean difference = -0.230, $p = .032$). In contrast, no significant differences were found among School B, School C, and School D, as shown by their non-significant comparisons ($p > .05$). This suggests that while School A stands out as significantly different, the other three schools exhibit relatively similar lifestyle habit levels.

The significant difference in lifestyle habits among schools may be attributed to variations in school health programs, student engagement in wellness activities, and environmental or academic pressures experienced by students. The post hoc analysis revealed that School A differed significantly from Schools B, C, and D, indicating that students in School A exhibited lifestyle habits that were distinct from those of students in the other participating schools. In contrast, the similarity among Schools B, C, and D suggests a more consistent implementation of lifestyle-related practices or shared environmental influences across these schools. These findings highlight the need for targeted interventions in School A while sustaining the effective practices observed in the other schools.

Studies that would agree with these findings often report that differences in school environment, health education programs, and institutional support can lead to variations in students' lifestyle habits across schools, particularly when one institution lacks strong wellness initiatives (Marquez, 2023). In contrast, other research may disagree by emphasizing that lifestyle habits are largely shaped by external factors such as family influence, socioeconomic status, and personal behavior, suggesting that similarities or differences between schools may not be as significant when compared to broader environmental and individual determinants (Arafa et al., 2024).

This table answers Statement of the Problem which determines whether there is a significant difference in lifestyle habits among students when grouped according to year level.

Table 16 Independent Samples t-Test for Lifestyle Habits by Year Level

Variable	t	df	p
Lifestyle Habit	-0.87	322	.384

These findings imply that year level does not significantly influence students' lifestyle habits. This suggests that students maintain consistent lifestyle patterns regardless of their academic year, possibly due to a shared school environment, similar daily routines, and uniform exposure to school policies and programs. It also implies that interventions aimed at improving lifestyle habits may be more effective if they focus on broader determinants such as personal behavior, family influence, and environmental conditions rather than year level differences.

Furthermore, studies supporting these findings indicate that lifestyle habits remain relatively stable across year levels, emphasizing that such behaviors are more strongly shaped by personal choices, peer influence, and the home environment rather than academic progression (Schermer et al., 2022). In contrast, some research contradicts these findings by suggesting that lifestyle habits may worsen in higher year levels due to increased academic workload, stress, and reduced time for healthy activities, which may lead to less favorable health behaviors as students advance in school (Dilbar, 2024).

This table answers Statement of the Problem which determines whether there is a significant difference in lifestyle habits among students when grouped according to academic strand.

Table 17 Welch t-Test for Lifestyle Habits by Academic Strand

Variable	t	df	p
Lifestyle Habit	0.83	321.40	.409

No statistically significant difference in lifestyle habits was found when students were grouped according to academic strand ($t = 0.83$, $df = 321.40$, $p = .409$). This indicates that students from both strands demonstrate comparable levels of lifestyle habits, and any observed difference in their mean scores is not statistically meaningful.

These findings imply that academic strands have no significant differences found in students' lifestyle habits. This suggests that students, regardless of their selected strand, tend to maintain similar lifestyle patterns, possibly due to shared school environment, common institutional policies, and similar exposure to health-related information and activities. It also implies that factors other than academic strand—such as personal discipline, family background, and peer influence—may have a stronger effect on students' lifestyle habits.

Studies that would agree with these findings often report that academic strand has little to no significant effect on students' lifestyle habits, emphasizing that lifestyle behaviors are more strongly influenced by personal choices, social environment, and family practices (Alim, 2024). On the other hand, some studies suggest that students exposed to school programs that emphasize sports participation and physical activity may exhibit healthier lifestyle habits due to greater engagement in structured physical activities and fitness-related experiences, which contribute to active living and overall well-being (Poblador & Tagare, 2022).

This table answers Statement of the Problem which determines the relationship between physical activity engagement and lifestyle habits among selected public Senior High School students.

Prior to conducting correlation analysis, the assumptions of normality were assessed using the Shapiro–Wilk test. Based on the findings, both variables were evaluated to determine the appropriate statistical test for measuring the relationship between physical activity engagement and lifestyle habits. Since the data demonstrated acceptable distributional properties and no severe violations in skewness, kurtosis, or outliers were observed, the Pearson product–moment correlation coefficient was deemed appropriate for use in analyzing the relationship between the two variables.

Table 18 Pearson Correlation between Physical Activity Engagement and Lifestyle Habits

Variables	r	p
Engagement and Lifestyle Habit	0.68	< .001

The Pearson correlation analysis shows a strong, positive, and statistically significant relationship between physical activity engagement and lifestyle habits ($r = 0.68$, $p < .001$). This indicates that students who have higher levels of physical activity engagement also tend to demonstrate more positive or healthier lifestyle habits, and vice versa. The strength of the correlation suggests a substantial association between the two variables.

These findings imply that physical activity engagement is closely linked with the development and maintenance of healthy lifestyle habits among students. It suggests that encouraging students to be more physically active may also be associated with improvements in their overall lifestyle behaviors, such as better time management, healthier routines, and more active daily living. This highlights the importance of integrating physical activity programs into school settings as part of broader health promotion strategies.

Studies that would agree with these findings often show that increased physical activity is healthier lifestyle patterns, including improved diet, better sleep habits, and reduced sedentary behavior (Posadzki et al., 2020). These studies emphasize that active individuals are more likely to adopt comprehensive health-oriented lifestyles. (Estrela et al., 2025) In contrast, some research may disagree by suggesting that physical activity and lifestyle habits are influenced by separate factors, arguing that students may be physically active due to school requirements or sports participation without necessarily maintaining overall healthy lifestyle habits in other areas such as nutrition or sleep (Carballo-Fazanes et al., 2020).

SUMMARY OF FINDINGS

This chapter presents the findings of the data gathered in the study, along with their analysis and interpretation in relation to the research objectives. The findings are organized according to the specific problems stated in the study and are supported by appropriate statistical treatments. Through this presentation, the study aims to provide a clear understanding of the relationships and patterns observed in the data.

The study shows that selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City generally demonstrate a high level of physical activity engagement. Although there are slight differences among schools, all groups consistently fall within the same overall level, indicating generally active student participation. One school stands out with relatively higher engagement, while another shows the lowest, but still within the same overall category of high engagement.

When grouped by year level, both Grade 11 and Grade 12 students show almost similar levels of physical activity engagement. The difference between them is very minimal, suggesting that progression in year level does not meaningfully change how active students are in physical activities.

In terms of academic strand, both HUMSS and TVL students exhibited similar levels of physical activity engagement. No meaningful difference was observed by academic strand, indicating that students' participation in physical activities was generally comparable regardless of strand affiliation. This suggests that both groups maintained similarly high levels of engagement in physical activity.

For lifestyle habits, students across all schools also demonstrate generally positive or high-level lifestyle habits. However, some schools show slightly stronger lifestyle behaviors compared to others, with one school consistently recording lower findings than the rest, although still within a positive range.

When grouped by year level, both Grade 11 and Grade 12 students show very similar lifestyle habits, indicating that students maintain consistent lifestyle behaviors regardless of academic progression.

A similar pattern is observed when grouped by academic strand, where both HUMSS and TVL students show comparable lifestyle habits. This suggests that strand does not strongly determine how students manage their lifestyle behaviors.

Finally, the study reveals a strong and significant positive relationship between physical activity engagement and lifestyle habits. This indicates that students who are more physically active also tend to have healthier and more positive lifestyle habits, showing that the two variables are closely connected.

CONCLUSION

This study concludes that selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City students generally demonstrate a high level of physical activity engagement across all participating schools. Despite minor variations, the overall pattern shows that students are consistently active, suggesting that physical activity is well integrated into their school experience. The presence of slight differences among schools indicates variation in implementation or support systems, but not enough to change the overall interpretation of high engagement.

The study further revealed that physical activity engagement was not found to differ significantly when respondents were grouped according to year level. Both Grade 11 and Grade 12 students exhibited nearly identical levels of participation, indicating that academic progression did not substantially influence students' involvement in physical activities. This suggests that students maintain consistent levels of physical activity throughout their senior high school years.

Similarly, academic strands do not appear to play a major role in determining physical activity engagement. Students from both HUMSS and TVL strands show comparable levels of participation, indicating that differences in academic focus do not translate into meaningful differences in physical activity behavior. This suggests that physical activity engagement is likely shaped more by shared school environments than by strand-specific experiences.

In terms of lifestyle habits, the study concludes that students generally exhibit positive and healthy lifestyle behaviors across all schools. While some differences exist among schools, these variations are relatively small and still fall within a generally favorable range. This indicates that students maintain acceptable lifestyle practices regardless of school affiliation.

No significant difference in lifestyle habits was found when respondents were grouped according to year level. Both Grade 11 and Grade 12 students show similar patterns, suggesting that lifestyle behaviors remain stable throughout their senior high school years. This stability may reflect consistent routines, school policies, and shared environmental influences.

Likewise, academic strand does not significantly affect students' lifestyle habits. Both HUMSS and TVL students demonstrate comparable lifestyle patterns, indicating that academic specialization does not strongly shape how students manage their daily health behaviors. This reinforces the idea that lifestyle habits are associated with broader factors beyond academic classification.

Finally, the study establishes a strong and significant positive relationship between physical activity engagement and lifestyle habits. This means that students who are more physically active are also more likely to exhibit healthier lifestyle behaviors. Overall, the findings highlight the interconnectedness of physical activity and lifestyle habits and suggest that promoting one may positively associate with the other among selected public Senior High School students.

RECOMMENDATIONS

Based on the findings and conclusions of this study, several key recommendations are presented to enhance and sustain the physical activity engagement and lifestyle habits of selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City. These recommendations are developed to guide students, teachers, school administrators, policymakers, and future researchers in promoting healthier and more active lifestyles. They aim to address identified gaps, strengthen existing programs, and support evidence-based strategies that can further improve student well-being and holistic development.

For students, students should be encouraged to maintain and further strengthen their participation in physical activities, as the findings revealed a strong and significant positive relationship between physical activity engagement and lifestyle habits. Since physically active students tend to demonstrate healthier lifestyle behaviors, students should be motivated to participate regularly in sports, exercise programs, recreational activities, and other forms of physical activity both inside and outside the school. They should likewise be encouraged to develop healthy habits related to nutrition, sleep, stress management, and overall wellness.

Teachers should continue promoting active and healthy lifestyles among students by integrating health and wellness concepts into classroom instruction and encouraging participation in school-based physical activities. Since physical activity engagement was found to be closely associated with healthier lifestyle habits, teachers may incorporate strategies that reinforce the value of regular physical activity and healthy daily practices. They may also provide additional encouragement and support to students who exhibit lower participation in physical activities.

School administrators, particularly those from School A, should review and strengthen existing physical activity and wellness programs. Since School A obtained significantly lower scores in both physical activity engagement and lifestyle habits compared with other schools, targeted interventions should be implemented to address these gaps. Such interventions may include the enhancement of sports and recreational programs, increased access to physical activity facilities, school wellness campaigns, and regular monitoring of students' participation in health-promoting activities. Benchmarking successful practices from Schools B, C, and D may also help improve student outcomes.

The Division of Bacolod City Education Office should develop and support programs that promote physical activity and healthy lifestyle behaviors among selected public Senior High School students. Given the significant relationship between physical activity engagement and lifestyle habits, policies and initiatives that encourage active living may be associated with improved physical activity levels and healthier overall lifestyle practices among students. Special attention should be given to schools that demonstrate lower levels of physical activity engagement and lifestyle habit scores.

Future researchers are encouraged to conduct similar studies involving a wider scope of respondents and additional variables such as dietary practices, mental health status, socioeconomic conditions, family support, and access to recreational facilities. Further investigations may also evaluate the effectiveness of intervention programs designed to improve physical activity engagement and lifestyle habits among selected public Senior.

Output

Training Program: “Active SHS Wellness Enhancement Program”

Physical Activity Engagement and Lifestyle Habits Improvement Program for selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City

Rationale

The findings of the study revealed that selected public Senior High School students generally demonstrated high levels of physical activity engagement and positive lifestyle habits. However, significant differences were observed among schools. Specifically, School A obtained significantly lower scores in physical activity

engagement compared with School C and significantly lower lifestyle habit scores compared with Schools B, C, and D. These findings indicate the need for targeted interventions to improve wellness practices among students in School A while sustaining the positive behaviors observed in the other schools.

The study established a strong and significant positive relationship between physical activity engagement and lifestyle habits. This suggests that increasing students' participation in physical activities may be associated with healthier lifestyle behaviors. Therefore, the ACTIVE SHS Wellness Enhancement Program is proposed to strengthen physical activity engagement, promote healthy lifestyle habits, and provide targeted support for schools with lower wellness indicators. The program also seeks to establish a sustainable and standardized wellness framework in the selected Senior High School students from selected public Senior High Schools in the Division of Bacolod City.

Table 19 Program Matrix

Program Component	Objectives	Activities	Time Frame	Persons Involved	Resources Needed	Budget (PHP)	Expected Output
A. Wellness Orientation & Baseline Assessment	To assess current physical activity and lifestyle habits and orient students on program goals	Orientation session, pre-assessment survey, goal-setting workshop	Week 1	School Admin, PE Teachers, Guidance Counselors, Students	Printed/digital surveys, school venue	3,000	Baseline data and student wellness goals
B. Active Lifestyle Training Sessions	To increase students' physical activity engagement through structured exercises	Zumba, aerobics, sports drills, active breaks	Weeks 2–5	PE Teachers, Student Leaders	Basic sports equipment, mats (school-based)	5,000	Increased physical activity participation
C. Healthy Lifestyle Workshops	To improve knowledge on nutrition, sleep, and stress management	Nutrition talk, sleep hygiene, time management, wellness discussion	Weeks 3–6	Teachers, Guidance Counselors (in-house)	Minimal printed materials, LCD (school-owned)	3,000	Improved awareness of healthy lifestyle practices
D. Wellness Challenge Program	To promote sustained engagement in physical activity and healthy habits	Step tracking, activity logs, inter-class mini challenges	Weeks 6–8	PE Teachers, Class Advisers, Students	Tracking sheets, certificates	5,000	Improved consistency in physical activity and habits
E. Sports & Fitness Festival	To promote school participation in physical activity	Intramurals (mini scale), fun walk, team games	Week 9	School Admin, PE Teachers, SSG Officers	Existing sports equipment, school grounds	3,000	Enhanced school physical activity culture
F. Evaluation & Program Assessment	To evaluate program effectiveness and student progress	Post-survey, feedback forms, focus group discussion	Week 10	Researchers, Teachers, Admin, Students	Digital forms, minimal printing	3,000	Measured improvement in engagement and lifestyle habits

Evaluation Plan

The effectiveness of the ACTIVE SHS Wellness Enhancement Program shall be measured through the following monitoring and evaluation indicators:

Indicator	Success Target	Means of Verification
Attendance Rate in Program Activities	At least 85% participation rate	Attendance sheets
Physical Activity Engagement Mean Score	At least 10% increase from pre-test to post-test	Pre-test and post-test survey results
Lifestyle Habits Mean Score	At least 10% increase from pre-test to post-test	Pre-test and post-test survey results
Completion Rate of Activity Logs and Wellness Journals	At least 90% completion rate	Submitted activity logs and journals
Student Satisfaction Rating	At least 85% satisfaction level	Student evaluation forms
Participation of School A Students	At least 90% participation in targeted interventions	Monitoring reports
Number of Wellness Activities Implemented	100% completion of planned activities	Program accomplishment reports

Overall Goal of the Program

To strengthen physical activity engagement and promote healthier lifestyle habits among selected public Senior High School students through evidence-based wellness interventions, with targeted support for schools demonstrating lower wellness indicators and sustained programs that foster long-term health and well-being.

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