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# PATHFit Program On Fitness Outcomes: Comparative Insights into Health, Well-Being, And Students' Development among College Students

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**ABSTRACT:** The study investigated how the Physical Activities Toward Health and Fitness (PATHFit) program worked in practice and how it affected college students from selected Pampanga city colleges in their fitness results and health and well-being and their overall student growth. The research assessed how much the PATHFit program was implemented through its curriculum delivery and facility access and student participation and how much students achieved in fitness and health and developmental progress. The research used a comparative descriptive–correlational research design that included 595 student respondents from City College of Angeles and Mabalacat City College who were selected through stratified random sampling.

The study gathered data through a validated researcher-made questionnaire and standardized fitness tests which assessed cardiorespiratory endurance and muscular strength and endurance and flexibility and body composition. The research team applied statistical analysis through mean and standard deviation and Pearson's correlation coefficient (r) and Analysis of Variance (ANOVA) to evaluate the collected data.

The research found that PATHFit program implementation was perceived to be at a high level across all dimensions. The students showed adequate physical fitness and they maintained good health and they achieved proper developmental growth. The study found that body composition showed variations while participants showed moderate sleep quality and psychosocial well-being. The results indicated that the PATHFit program implementation created weak connections with fitness outcomes while establishing strong positive links between health and well-being and student development outcomes. The study found that selected variables showed different outcomes between institutions.

The research results led to the development of a PATHFit Strategic Framework which aims to enhance program implementation through specific wellness programs and improved engagement techniques and organized monitoring systems. The study demonstrates how physical education needs a complete evidence-based framework to help students achieve better health and well-being and overall development.

**KEYWORDS:** PATHFit program, fitness outcomes, health and well-being, student development, program implementation

## I. INTRODUCTION

Higher education institutions want to achieve complete student development through their academic excellence, student health programs, mental health services and total wellbeing Support. The Commission on Higher Education (CHED) recognized this need by establishing the Physical Activities Towards Health and Fitness (PATHFit) program as a mandatory program through CMO No. 39, series of 2021, which serves as the updated general education curriculum requirement. The PATHFit program provides students with the necessary knowledge and skills and life values that enable them to maintain physical activity throughout their lives while developing health Awareness and personal strength and complete wellness (Aquino & Rivano, 2024).

PATHFit uses a predefined and complete system that evaluates health-related fitness through tests of cardiovascular endurance, muscular strength and endurance, flexibility and body composition (Tolentino & Sinio, 2024). The program combines physical training with wellness education, which helps participants develop their psychosocial skills and stress control abilities and adopt healthy lifestyle practices. The program uses multiple methods to develop complete wellbeing in college students through its combination of organized fitness sessions, educational health programs and hands-on learning experiences.

The research shows that physical education programs should be implemented effectively to achieve their desired program results. Aquino and Rivano (2024) demonstrated that students need proper curriculum delivery and institutional Support to enhance their learning motivation and active participation. Students' fitness results and general wellness show a strong

connection to facility accessibility and available teaching materials, according to the findings shared by Tolentino and Sinio (2024). The success of PATHFit depends on how well program execution matches the capacity of the institution to carry out its operations.

Studies show that physical activity program participation leads to both better fitness levels and improved health results and development outcomes for participants. Regular exercise leads to better sleep results, which also decrease stress and anxiety and improve psychosocial wellbeing (Han et al., 2025). Active participation in structured physical education leads to better academic engagement, teamwork and time Management skills, which are essential for success in personal and professional life (Wang et al., 2024; Ke et al., 2025).

The study used a comparative quantitative design to identify significant correlations and differences between PATHFit results at both academic institutions through the application of statistical tests, which included Pearson r and ANOVA. The study results established how well PATHFit worked as a program while showing areas where institutions had differences that affected successful program implementation.

The study developed a PATHFit Strategic Framework, which enhanced program implementation at Pampanga City colleges through its implementation at these institutions. The proposed framework served as a guide for improving curriculum delivery, resource allocation, and engagement strategies to promote health, fitness, and holistic student development among college students in public higher education institutions.

**Research Question**

This study, entitled "Evaluating the Implementation of the PATHFit Program and Its Impact on Fitness Outcomes: A Comparative Study on Health, wellbeing, and Student Development Among College Students in Selected City Colleges of Pampanga," assessed the Extent of PATHFit program implementation and its relationship with the fitness outcomes, health and wellbeing, and student development of college students. The study further determined whether there were significant differences in these variables across the selected city colleges in Pampanga—namely, the City College of Angeles and Mabalacat City College. Specifically, it sought to answer the following questions:

1. What is the Extent of PATHFit program implementation as perceived by college students in the selected City Colleges of Pampanga in terms of:
    1.1. Curriculum delivery;
    1.2. Availability and accessibility;
    1.3. Facilities; and
    1.4. Engagement?
2. What are the fitness outcomes of college students in the selected City Colleges of Pampanga in terms of:
    2.1. Cardiorespiratory endurance;
    2.2. Muscular strength and endurance;
    2.3. Flexibility; and
    2.4. Body composition?
3. What is the level of students' health and wellbeing in the selected City Colleges of Pampanga in terms of:
    3.1. Physical activity and health behaviors;
    3.2. Sleep quality; and
    3.3. Psychosocial wellbeing (stress, anxiety, and self-esteem)?
4. What is the Extent of student development outcomes as influenced by the PATHFit program in the selected City Colleges of Pampanga in terms of:
    4.1. Academic engagement;
    4.2. Time Management; and
    4.3. Teamwork and leadership skills?
5. Is there a significant relationship between the Extent of PATHFit program implementation and the level of fitness outcomes as perceived by college students in the selected City Colleges of Pampanga?
6. Is there a significant relationship between the Extent of PATHFit program implementation as perceived by college students and their level of health and wellbeing in the selected City Colleges of Pampanga?
7. Is there a significant relationship between the Extent of PATHFit program implementation as perceived by college students and their student development outcomes as influenced by the PATHFit program in the selected City Colleges of Pampanga?

8. Is there a significant relationship between the level of fitness outcomes of college students and their health and wellbeing in the selected City Colleges of Pampanga?
9. Is there a significant relationship between the level of fitness outcomes of college students and their student development outcomes as influenced by the PATHFit program in the selected City Colleges of Pampanga?
10. Is there a significant difference in the Extent of PATHFit program implementation, fitness outcomes, health and wellbeing, and student development outcomes when compared across the two City Colleges in Pampanga?
11. Based on the findings of the study, what PATHFit Strategic Framework may be proposed to strengthen program implementation and enhance its impact on student fitness, health, and development in the City College of Angeles and Mabalacat City College?

**II. SCOPE AND LIMITATION OF THE STUDY**

The study examined how the PATHFit program was implemented among college students in two Pampanga institutions—City College of Angeles (CCA) and Mabalacat City College (MCC)—and its effects on fitness, health, and student development.

It evaluated program implementation in terms of curriculum delivery, resource availability, facilities, and student participation. It also measured fitness outcomes (cardiovascular endurance, strength, flexibility, and body composition), health and wellbeing (physical activity, health behaviors, sleep quality, stress, anxiety, and self-esteem), and student development (academic engagement, time management, teamwork, and leadership).

The study used a comparative–quantitative design, applying Pearson's correlation to examine relationships between variables and ANOVA to identify differences between the two colleges.

Participants were students officially enrolled in PATHFit courses, while non-enrolled students, faculty, and others were excluded. Fitness assessment was limited to field-based tests (step test, push-ups, sit-and-reach, and BMI) to ensure consistency and feasibility.

**Framework**

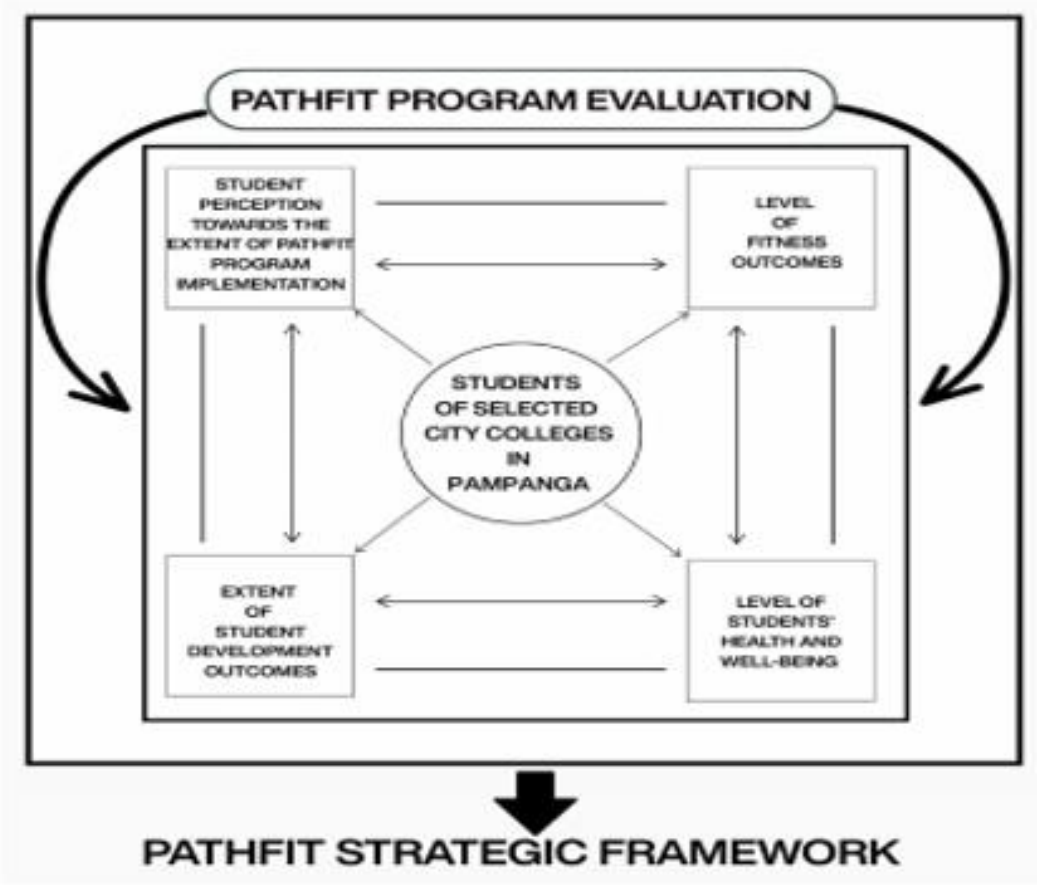



**Figure 1.** *Conceptual Paradigm*

## PATHFit Program On Fitness Outcomes: Comparative Insights into Health, Well-Being, And Students' Development among College Students

The study is anchored on the PATHFit program mandated by CHED, which aims to promote lifelong fitness and wellness among college students. Its conceptual framework explains how key variables are interconnected.

First, student perception of PATHFit implementation is assessed through curriculum delivery, accessibility, facilities, and engagement. These factors reflect program quality and influence how effectively students participate and achieve outcomes.

Second, fitness outcomes are measured using standard tests for cardiovascular endurance, strength, flexibility, and body composition. These indicate the physical benefits gained from program participation.

Third, health and wellbeing are examined through physical activity, health behaviors, sleep quality, and psychosocial factors like stress, anxiety, and self-esteem. Research shows that active participation improves both physical and mental health.

Fourth, student development outcomes focus on academic engagement, time management, teamwork, and leadership skills, highlighting how PATHFit contributes to holistic student growth.

The framework shows that these variables are interconnected—program implementation influences fitness, health, and development, while relationships and differences among variables are analyzed. Overall, it presents PATHFit as a holistic program linking instructional quality and institutional support to students' physical, mental, and personal development.

**Research Design**

The research team performed their analysis using a comparative cross-sectional study, which followed a descriptive and correlational design to assess how the PATHFit program operated in the two City Colleges in Pampanga (City College of Angeles and Mabalacat City College) while studying its effects on college students' fitness and health and their development outcomes. The researchers used descriptive methods to examine how students viewed the PATHFit program through their assessment of curriculum delivery and resource accessibility and facility usage and student participation while creating fitness profiles of students who achieved cardiovascular endurance and muscular strength and endurance and flexibility and body composition together with their health outcomes from physical activity and sleeping patterns and psychological wellbeing and their academic progress through academic engagement and time Management and teamwork and leadership skills.

The researchers used Pearson's Product-Moment Correlation Coefficient to assess how PATHFit program implementation correlated with each outcome domain, and they used Spearman's rho as a non-parametric method when normality requirements were not satisfied. The research team used one-way ANOVA to compare how different institutions implemented PATHFit and achieved outcomes while applying Welch's ANOVA method when the study results showed violations of equal variance requirements. The research team conducted appropriate post-hoc tests, which included Tukey or Games–Howell to identify which groups exhibited differences from each other.

The researchers performed their analysis using data from a single study time point, which used a researcher-developed survey and standardized fitness assessments conducted across the entire academic period. The research team used this method to enable institution-level comparisons while they examined how study variables interacted with each other according to the study's Statement of the Problem.

**Research Instrument**

The study used two main tools: a researcher-made questionnaire and standardized physical fitness tests. These were designed to evaluate the implementation of the PATHFit program, as well as its effects on students' fitness, health, and overall development.

The questionnaire had four parts: (1) extent of PATHFit program implementation (curriculum, facilities, accessibility, and engagement), (2) fitness outcomes (cardiovascular endurance, strength, flexibility, body composition), (3) health and wellbeing (physical activity, sleep, and psychosocial factors like stress and self-esteem), and (4) student development (academic engagement, time management, teamwork, and leadership). Responses were measured using a four-point Likert scale to avoid neutral answers.

Physical fitness was assessed through standardized tests such as step or beep tests (cardio endurance), push-up or handgrip tests (strength), sit-and-reach (flexibility), and BMI calculations (body composition). These tests were chosen for their reliability and ease of use.

By combining survey responses with actual fitness test results, the study produced a comprehensive assessment of the PATHFit program. The findings were used to evaluate program effectiveness and to develop a strategic framework aimed at improving implementation and promoting student wellness.

**Data Gathering**

The study followed a structured and ethical data-gathering process. Researchers first secured permissions from CHED, the City College of Angeles, and Mabalacat City College, along with ethical clearance from a review board. PATHFit coordinators provided student lists, and instructors helped coordinate the data collection.

Using stratified random sampling, 595 students were selected. Participants were properly oriented about the study, assured of confidentiality, and gave informed consent before participation.

Data were collected through a validated questionnaire (administered face-to-face or online) and standardized physical fitness tests. These included step or beep tests (cardiorespiratory endurance), push-up or handgrip tests (strength), sit-and-reach (flexibility), and BMI measurement. Trained instructors assisted to ensure consistent procedures, and all data were gathered within one month.

After collection, data were encoded, organized, and analyzed using Pearson's correlation (to examine relationships) and ANOVA (to compare the two colleges). The results were then used to develop a PATHFit Strategic Framework aimed at improving program implementation and student outcomes.

**Statistical Treatment**

The study analyzed quantitative data from questionnaires and fitness tests using several statistical methods.

Frequency and Percentage were used to describe how respondents were distributed across fitness categories such as cardiovascular endurance, muscular strength, flexibility, and body composition (BMI and waist circumference).

Mean and Standard Deviation measured the level of PATHFit program implementation, as well as student health, wellbeing, and development. The mean showed average responses, while standard deviation indicated consistency or variation.

Pearson's Correlation Coefficient (r) examined relationships between variables, such as how PATHFit implementation influenced fitness, health, and student development, and how fitness outcomes related to these factors.

Analysis of Variance (ANOVA) tested differences between the two colleges in terms of program implementation, fitness outcomes, health, and student development.

Overall, these statistical methods provided both descriptive and inferential results, allowing the researchers to answer research questions and test hypotheses about relationships and differences among variables.

## III. RESULTS

This chapter presents the presentation, analysis, results, and discussions of the interpreted and analyzed figures that transpired during the data-gathering flow. The results are linked to the research questions.

### 1. Extent of PATHFit Program Implementation

The section shows how college students from City Colleges of Pampanga perceive the PATHFit program implementation. The program delivery assessment includes evaluation of curriculum delivery methods, assessment of facility accessibility and assessment of student engagement with the program. The results show whether institutions implement the PATHFit program effectively while also measuring its impact on student learning and participation and overall development.

### 1.1. Extent of PATHFit Program Implementation in terms of Curriculum Delivery

The PATHFit program implementation assessment shows how instructors deliver the curriculum by evaluating their course objective presentations and lesson alignment with learning outcomes, their use of teaching methods, health content delivery and student assessment practices. The data reveal how instructional methods in PATHFit classes enhance student learning and participation.

**Table 1. Extent of PATHFit Program Implementation in terms of Curriculum Delivery**

| Indicators | Mean | VI |
|---|---|---|
| 1. The instructor explains the PATHFIT course objectives to students. | 3.82 | SA |
| 2. Lessons and activities are aligned with the stated PATHFIT learning outcomes. | 3.83 | SA |
| 3. The instructor uses active, skills-based teaching strategies (e.g., demonstrations, practice sessions, feedback). | 3.79 | SA |
| 4. Course content integrates health, fitness, and wellness concepts in both classroom and practical sessions. | 3.81 | SA |
| 5. Assessments (with rubrics) measure the stated PATHFIT learning outcomes. | 3.80 | SA |
| **General Assessment** | **3.81** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The study results show that the PATHFit program achieves its Strongly Agree status for curriculum delivery because the average score reaches 3.81 (SA). The students considered the PATHFit teaching delivery system to be successful because it provided effective delivery, an organized structure, and proper learning results. The instructors need to deliver permanent teaching direction, structured academic pathways, and suitable learning materials, which serve as the foundation for reaching the program's educational goals. The indicator "Lessons and activities are aligned with the stated PATHFIT learning outcomes" achieved the highest mean value of 3.83 (SA). The statement shows how teaching methods connect with the learning objectives, which helps students gain the knowledge and skills that the curriculum requires. The research of Tolentino and Sinio (2024) proved that successful PATHFit implementation depends on aligning curriculum content with learning objectives, which establishes the necessary conditions for success. Wang et al. (2024) discovered that physical education programs achieve better student outcomes when they use structured programs with teaching methods that match their educational goals.

The assessment results showed that all indicators received high scores in clarity of instruction (M = 3.82), integration of health and wellness concepts (M = 3.81), and assessment practices (M = 3.80). The instructors successfully perform their teaching duties by delivering courses that combine theoretical knowledge and practical physical education skills. The research of Culajara (2024) and Xiong (2025) proved that student-centered teaching methods with need-supporting components improve student engagement and motivation while supporting their learning needs in physical education classes. The PATHFit program embraces a complete wellness approach because it teaches students both multifaceted wellness and physical fitness skills.

The active skills-based teaching strategies received the lowest mean score, which remains within the Strongly Agree category at 3.79 (SA). The results show that organizations currently use these strategies, yet they need to enhance their interactive learning practices and their practical learning experiences. The research of Martín-Rodríguez et al. (2025) showed that modern teaching methods enhance student engagement and motor skills development.

The results show that effective curriculum delivery establishes the essential base that enables students to engage with their studies while achieving educational success in their academic programs, which results from properly executed teaching methods that lead to educational improvements at PATHFit.

**1.2. Extent of PATHFit Program Implementation in terms of Availability and Accessibility**

The PATHFit program implementation is demonstrated through this section, which shows its operational status and availability to users. The data show how accessible and inclusive the PATHFit program resources are for students with different academic needs and personal requirements.

**Table 2. Extent of PATHFit Program Implementation in terms of Availability and Accessibility**

| Indicators | Mean | VI |
|---|---|---|
| 1. PATHFIT classes are scheduled in time slots that allow students from different programs to attend. | 3.69 | SA |
| 2. Learning materials and resources are provided through accessible channels (e.g., LMS, shared folders, printed handouts). | 3.66 | SA |
| 3. Activity modifications are provided to accommodate different fitness levels and health conditions. | 3.73 | SA |
| 4. Online or blended delivery options are provided when face-to-face attendance is disrupted or formally approved. | 3.64 | SA |
| 5. Participation opportunities are provided to all students, including those with disabilities or from other campuses. | 3.71 | SA |
| **General Assessment** | **3.69** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The results indicate an overall Strongly Agree level of PATHFit program implementation in terms of availability and accessibility, which is shown through the general mean value of 3.69 (SA). The program provides students with equal access to all services because it serves all students from different backgrounds who study at the selected college campuses. The institutional activities that establish equal access through various resources and provide flexible study times result in higher student participation within the PATHFit program. The research showed that the indicator "Activity modifications are provided to accommodate different fitness levels and health conditions" received the highest mean score of 3.73, which was classified as Strongly Agree (SA). The program establishes its commitment to inclusivity through its adaptable design, which enables all students, including those with different physical abilities and health conditions, to take part in all PATHFit activities. The finding shows adherence to DO-IT Center (2025) principles, which Support inclusive physical education through the use of adaptive teaching methods that accommodate unique learning requirements. The research by Krejtz et al. (2025) showed that inclusive program design is essential for achieving fair student participation in educational institutions.

The study found that digital educational tools face technological barriers, and educational institutions need to prepare themselves before they can use these tools. The PATHFit program provides its available resources throughout all the designated institutions according to the research results. The high ratings across all indicators demonstrate that the combination of inclusive practices with flexible scheduling and accessible resources results in higher student participation and engagement levels. The research results demonstrate that physical education programs such as PATHFit need equitable access and adaptability to fulfill the various requirements of college students while promoting their overall development.

**1.3. Extent of PATHFit Program Implementation in terms of Facilities**

The PATHFit program implementation at this site shows its full Extent through its operational facilities that provide physical resources which the program needs during PATHFit sessions. The research investigates how facility and equipment quality influence physical activity execution while creating a secure and efficient learning space for students.

**Table 3. Extent of PATHFit Program Implementation in terms of Facilities**

| Indicators | Mean | VI |
|---|---|---|
| 1. Facilities for PATHFIT are provided and maintained. | 3.60 | SA |
| 2. Equipment for PATHFIT sessions is provided and functional. | 3.47 | SA |
| 3. PATHFIT venues are kept clean and safe for activities. | 3.54 | SA |
| 4. Designated areas suitable for the required PATHFIT activities are available (e.g., court/field space, markings, ventilation). | 3.64 | SA |
| 5. Facility features support the conduct of PATHFIT activities (e.g., space, lighting, ventilation). | 3.63 | SA |
| **General Assessment** | **3.57** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The results show that the PATHFit program is implemented through its facilities at an overall Strongly Agree level, which corresponds to a mean score of 3.57 (SA). The finding shows that all physical resources, venues and equipment needed for PATHFit activities function as proper requirements to Support program operations. The statement indicates that participating institutions create physical environments that Support student participation in physical education activities. The indicator "Designated areas suitable for the required PATHFIT activities are available" achieved the highest mean score of 3.64 (SA). The statement shows that

schools provide all the needed spaces, which include courts and fields, and well-ventilated areas for students to carry out their physical activities.

The presence of suitable activity spaces is essential in ensuring that students can perform exercises safely and effectively. The research supports the finding that shows that student access to sports facilities that designers created enhances their participation in physical activities. The movement process, skill enhancement and physical performance improvement depend on having sufficient space and suitable environment conditions. High mean scores were attained for facility features, which included lighting and ventilation at 3.63 SA, and for the operational capability of facilities, which received a maintenance score of 3.60 SA. The results show that institutions are making progress to establish operational environments that Support PATHFit operational activities.

The study results show that school facility quality and maintenance directly influence how students participate in school activities. Clean and safe venues (M = 3.54, SA) further reinforce the importance of providing an environment that promotes safety and comfort during physical activity, which is essential for sustaining student motivation and participation. The availability of equipment received the lowest mean score, although it stayed within the Strongly Agree range, which resulted in a value of M = 3.47 (SA). The finding shows that equipment exists at standard levels for use, but certain equipment restrictions exist that hinder the ideal execution of the program.

The research shows that all selected city colleges provide proper facilities for staff to run PATHFit programs at their institutions. The steady high ratings across all indicators show that safe environments, together with appropriate spaces and functional resources, lead to successful program implementation. The results show that maintaining high-quality facilities serves as a critical factor for enhancing student participation and protecting their safety, which leads to positive outcomes in physical education programs.

### 1.4. Extent of PATHFit Program Implementation in terms of Engagement

The PATHFit program implementation study shows its impact on student participation through measurement of student-centered activities, motivational strategies, structured group activities and program activities for active living and complete development. The data shows how well the program enables students to participate in school activities and learn from their physical education experiences in both classroom and extracurricular settings.

**Table 4. Extent of PATHFit Program Implementation in terms of Engagement**

| Indicators | Mean | VI |
|---|---|---|
| 1. PATHFIT sessions use student-centered activities (e.g., games, challenges, music-aided drills) to promote enjoyment and motivation. | 3.73 | SA |
| 2. The program implements initiatives that promote an active lifestyle beyond class (e.g., step or activity challenges, home workout tasks, campus events). | 3.71 | SA |
| 3. Activities include structured group tasks that develop teamwork, discipline, and social interaction. | 3.76 | SA |
| 4. Instructors use motivational strategies (goal setting, formative feedback, recognition) to support student effort. | 3.75 | SA |
| 5. Program components address holistic development (physical fitness, mental well-being, and social responsibility). | 3.73 | SA |
| **General Assessment** | **3.74** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The results indicate an overall Strongly Agree level of PATHFit program implementation in terms of engagement, as reflected by the general mean of 3.74 (SA). The program achieves its objectives through successful student engagement in active learning and motivational activities, which enable students to participate in significant educational experiences. The PATHFit sessions are created to deliver interactive sessions that actively involve students while meeting their requirements, which results in improved educational outcomes and increased participation in physical activities.

The indicator "Activities include structured group tasks that develop teamwork, discipline, and social interaction" achieved its highest average score of (M = 3.76, SA) for this particular measurement. The program delivers strong Support for collaborative learning because it requires students to work together with others while developing their social abilities. Students develop their communication and interpersonal skills through group-based activities, which teach them both teamwork and

discipline. The finding matches the results of Tannoubi et al. (2025), who found that physical education requires students to show both behavioral and social engagement for their academic success and personal development.

The study by Ke et al. (2025) discovered that students improve their commitment to physical activity when they work together with others in environments that offer them Support. The instructors use motivational strategies (M = 3.75, SA) and student-centered activities (M = 3.73, SA) to achieve better student engagement through enjoyable experiences, which they use to maintain student interest. The study by Li (2025) showed that students experience better educational results when teachers use teaching methods that Support student autonomy.

The study results match the findings of Han et al. (2025), who stated that university students need to engage in physical activity beyond their required classes to achieve better mental health and maintain their wellness habits. The PATHFit program shows excellent student engagement results in all city colleges that were studied. The indicators show a consistent high rating because the student-centered methods, motivational methods, collaborative methods and comprehensive program elements all play a role in increasing student engagement and student development. The findings show that student engagement operates as the most important element that enhances the performance of physical education programs while supporting college students to maintain active lifestyles throughout their lives.

**2. Level of Fitness Outcomes**

The section demonstrates the fitness outcome results, which show how college students from City Colleges of Pampanga achieved their fitness goals. The study assesses students' physical fitness abilities through their cardiorespiratory endurance and their strength, endurance, flexibility and body composition assessment. The study results serve as an empirical foundation that enables researchers to evaluate how well the PATHFit program improved student physical fitness and health outcomes.

**2.1. Level of Fitness Outcomes in terms of Cardiorespiratory Endurance**

The section displays the cardiorespiratory endurance level that college students achieved through their capacity to maintain extended periods of physical activity. The data show student performance across various fitness levels, which demonstrates their cardiorespiratory health and endurance capacity based on their experience with the PATHFit program.

**Table 5. Level of Fitness Outcomes in terms of Cardiorespiratory Endurance**

| Cardiorespiratory Endurance | Frequency | Percentage |
|---|---|---|
| Excellent | 162 | 27.23 |
| Good | 156 | 26.22 |
| Above Average | 102 | 17.14 |
| Average | 86 | 14.45 |
| Poor | 41 | 6.89 |
| Very Poor | 48 | 8.07 |
| **Total** | **595** | **100%** |

The results show that most students showed excellent cardiorespiratory endurance, with 27.23% reaching Excellent status and 26.22% achieving Good status. The data shows that more than half of the participants demonstrate excellent cardiorespiratory fitness, which indicates that students possess the ability to perform moderate to vigorous physical activities. The PATHFit program successfully improves college students' aerobic fitness and endurance, according to this research finding.

The Excellent category showed the highest occurrence, which included 162 students who made up 27.23% of the total, showing that a large number of students reached their best cardiorespiratory endurance performance. The research shows that people who regularly engage in structured physical activities, which include the PATHFit program, will experience significant improvements in their aerobic capacity. The study results align with Huang et al. (2025), who established that greater physical activity frequency and intensity lead to higher physical fitness achievements for college students. The research conducted by Wang et al. (2024) demonstrated that implementing structured physical education programs significantly boosts students' cardiovascular endurance and their overall physical performance abilities. The Good category contained 26.22% of students, while 17.14% of students qualified for the Above Average category, showing that most students possess above-average endurance capabilities. The results show that students are engaged in physical activities while staying consistent enough to develop their cardiorespiratory system. Li et al. (2025) established that people who maintain their moderate-to-vigorous physical activity level will experience enhanced endurance and lung capacity, together with total fitness progress. A small group of students belonged to the Average category (14.45%), Poor category (6.89%), and Very Poor category (8.07%), which shows that these students still have insufficient cardiorespiratory fitness levels. The research shows that most program participants experience benefits, but

special assistance should be provided to those who need extra help to boost their fitness progress. Guo (2024) established that student physical fitness levels display differences, which result from their daily routines and physical activity patterns and their personal health status. The study results show that student cardiorespiratory endurance levels are high, with most students achieving excellent or above-average fitness standards. The PATHFit program successfully improves cardiovascular health for college students while encouraging them to maintain active lifestyles. The existence of students with lower fitness levels highlights the necessity for specific interventions and ongoing program improvements, which will guarantee that every student reaches their best fitness results.

**2.2. Level of Fitness Outcomes in terms of Muscular Strength and Endurance**

The section presents college students' muscular strength and endurance levels through the measurement of maximum strength and their capacity to perform repeated muscle contractions during extended periods. The data shows students' performance in various fitness categories, which revealed their overall muscular fitness levels that resulted from their participation in the PATHFit program.

**Table 6. Level of Fitness Outcomes in terms of Muscular Strength and Endurance**

| Muscular Strength and Endurance | Frequency | Percentage |
|---|---|---|
| Excellent | 145 | 24.37 |
| Very Good | 162 | 27.23 |
| Good | 103 | 17.31 |
| Average | 95 | 15.97 |
| Poor | 40 | 6.72 |
| Very Poor | 36 | 6.05 |
| **Total** | **595** | **100%** |

The study shows that most students achieved high muscular strength and endurance results because 27.23% of students qualified as Very Good, and 24.37% of students achieved Excellent status. The majority of students show high muscular fitness because they can perform extended physical work without experiencing fatigue. The PATHFit program helps college students build muscular strength and endurance, according to the study results. The Very Good category had the highest number of students because 162 students achieved this status, which represents 27.23% of the total student population. Muscular performance increases through regular participation in organized physical training, which includes strength training and movement repetition activities.

The study results show that students who participate in PATHFit activities show different performance results, which result from their various physical activity patterns, training intensity and personal fitness levels. The Li et al. (2025) study found that people who maintain regular moderate-to-vigorous physical activity will experience better muscular fitness and athletic performance. Students who exhibit Poor muscular performance account for 6.72% of students, while 6.05% of students display Very Poor muscular performance abilities.

The students who experience muscular fitness challenges will benefit from exercise programs that use progressive strength training and personalized exercise plans. The Guo (2024) study found that individual characteristics such as body composition and lifestyle habits will determine the physical fitness results that students achieve in college.

The study results show that most students achieve high muscular strength and endurance levels because most students reach very good to excellent performance standards. Students who participate in the PATHFit program will experience greater muscular fitness improvements, and their physical development will benefit from this program. The student body includes individuals who perform below standard, which creates a requirement for program enhancements and customized student Support. The program must implement continuous enhancements to help students reach their maximum muscular fitness results.

**2.3. Level of Fitness Outcomes in terms of Flexibility**

The section demonstrates how college students maintain their flexible abilities through their complete joint movement capacity. The data show how students performed in various flexibility tests, which reveal their ability to move their bodies, their muscle flexibility and their overall fitness level, which resulted from PATHFit program participation.

**Table 7. Level of Fitness Outcomes in terms of Flexibility**

| Flexibility | Frequency | Percentage |
|---|---|---|
| Excellent | 170 | 28.57 |
| Good | 179 | 30.08 |
| Average | 158 | 26.55 |
| Below Average | 38 | 6.39 |
| Low | 50 | 8.40 |
| **Total** | **595** | **100%** |

The results show that most students reached moderate to high flexibility levels, while 30.08% of respondents achieved Good status and 28.57% achieved Excellent status. The data show that most students have sufficient joint mobility and muscle flexibility needed for safe and effective physical activity. The research shows that students who practice stretching and mobility exercises in the PATHFit program will see better flexibility results because of their program participation.

The Good category showed the most students, with 179 students representing 30.08%, who have developed enough flexibility for effective physical activities and functional movement. The research of Wang et al. (2024) shows that students who practice flexibility exercises in organized physical education programs will develop better flexibility and fitness through their education. The study by Li et al. (2025) found that people who regularly exercise will gain better flexibility, which will help them perform better in physical activities.

A large group of students qualified for the Average category 26.55% which means most students show adequate flexibility, but they need to work on their mobility skills. The differences in results stem from variations in exercise routines and how much people take part in activities, and their unique physical traits. Huang et al. (2025) established that the total amount of physical activity done during a certain period determines fitness results, which include flexibility.

The study showed that 6.39% of students reached Below Average status, while 8.40% students faced Low status, which demonstrates that some students show restricted flexibility. The situation will lead to higher injury chances, while people will struggle to complete their physical tasks. The research supports Guo (2024), who discovered that body composition, physical inactivity and lifestyle habits determine how people develop their physical fitness components, which include flexibility. The students from this group require specific interventions, which should include regular stretching and personalized exercise plans to enhance their flexibility.

**2.4. Level of Fitness Outcomes in terms of Body Composition**

The section shows body composition measurements of college students through two main indicators, which are Body Mass Index (BMI) and Waist Circumference. The measurements enable complete evaluation of students' weight status together with their fat distribution patterns, which serve as vital health indicators, fitness assessment tools and lifestyle disease risk evaluation metrics. The results show how students fall into various body composition categories, which helps to assess their health condition based on their involvement in the PATHFit program.

**Table 8. Level of Fitness Outcomes in terms of Body Composition**

| Indicator | Category | Frequency | Percentage |
|---|---|---|---|
| **BMI** | Underweight | 102 | 17.14 |
| | Normal | 297 | 49.92 |
| | Overweight | 107 | 17.98 |
| | Obese | 89 | 14.96 |
| | **Total** | **595** | **100%** |
| **Waist Circumference** | Extreme | 112 | 18.82 |
| | High | 111 | 18.66 |
| | Average | 122 | 20.50 |
| | Good | 118 | 19.93 |
| | Excellent | 132 | 22.18 |
| | **Total** | **595** | **100%** |

The study results show that 49.92 percent of students belong to the Normal BMI range, which indicates that most students keep their body weight within healthy limits for their height. The body composition status shows acceptable results, which demonstrate that participation in the PATHFit program helps students maintain a healthy weight while they learn about health. The Normal category recorded the highest count with 297 students, which shows that most students maintain their weight within the healthy range, which reduces health risks. Guo (2024) found that people with normal BMI levels show better physical fitness and overall

health than others. Huang et al. (2025) showed that college students who engage in regular exercise and practice healthy lifestyle choices can maintain their normal body weight.

The data shows that 17.98 percent of students fell into the Overweight category, while 14.96 percent fell into the Obese category, which means that about one-third of the students face health risks that stem from their extra body weight. The PATHFit program needs extra programs to teach people about healthy eating and to help them change their daily habits. The study results show that the use of time for physical inactivity and unhealthy daily routines reduces body weight for people who participate in exercise programs.

The study shows that 18.82 percent of students belong to the Extreme category, while 18.66 percent belong to the High category, which indicates that students have grown central body fat, which creates health problems. Huang et al. (2025) showed that central body fat serves as an important risk factor for chronic diseases, with its relationship especially affecting young adults. The student body shows two groups, which include optimal and at-risk people who display different patterns of daily activities, dietary habits, and exercise amounts.

The study results show that most students achieve healthy body composition standards, but many students still face risks because they are underweight or have too much body fat. The PATHFit program succeeds in increasing physical activity among students, but students require a complete method that needs both nutritional knowledge and daily life changes and ongoing health assessments. To enhance student health and wellbeing, institutions need to use these methods for better general body composition and better central body composition.

**3. Level of Students' Health and Well-being**

The study investigates essential areas, which include physical activity and health behaviors, along with sleep quality and psychosocial wellbeing. The study results demonstrate how students who participate in the PATHFit program experience improvements in their general health, their daily health habits and their overall wellbeing.

**3.1. Level of Students' Health and Well-being in terms of Physical Activity and Health Behaviors**

The section shows students' physical activity levels when they participate in different health-related activities, which include moderate-to-vigorous physical activity, healthy eating and sedentary behavior control and active life maintenance. The data shows how students practice healthy behaviors throughout their day after participating in the PATHFit program.

**Table 9. Level of Students' Health and Well-being in terms of Physical Activity and Health Behaviors**

| Indicators | Mean | VI |
|---|---|---|
| 1. I engage in moderate-to-vigorous physical activity (e.g., brisk walking, running, sports). | 3.54 | SA |
| 2. I follow healthy eating and hydration habits (e.g., fruits/vegetables, whole grains, adequate water; limit sugary drinks). | 3.42 | SA |
| 3. I meet the weekly guideline for moderate-to-vigorous physical activity (about 150 minutes per week). | 3.39 | SA |
| 4. I limit sedentary time during my free time (e.g., prolonged sitting or leisure screen use). | 3.38 | SA |
| 5. I consistently include physical activity and healthy behaviors as part of my weekly routine. | 3.44 | SA |
| **General Assessment** | **3.44** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The results show that students demonstrate a Strongly Agree level of health and wellbeing because their physical activity and health behavior assessment reached a mean score of 3.44 (SA). The finding shows that students usually follow healthy lifestyle habits, which include doing regular exercise, eating nutritious food and minimizing their time spent sitting. The PATHFit program helps college students develop healthy habits according to its positive effects on their wellness.

Students who reported their moderate-to-vigorous physical activity level achieved the highest average of 3.54 (SA), which shows that most students take part in physical activities like walking, running and playing sports. Students who participated in PATHFit demonstrated improved physical activity levels. The research from Huang et al. (2025) shows that college students who increase their physical activity levels achieve better physical fitness and improved health results. Han et al. (2025) found that people who do physical activities regularly experience better mental health results and improved wellbeing.

The students maintain healthy routines with a mean score of 3.44 (SA), and they observe proper nutritional practices with a mean score of 3.42 (SA), which shows their understanding of healthy behaviors. The findings show that structured physical education programs help people develop lifelong healthy habits, which include balanced nutrition and regular exercise, according to Mahantagouda (2023). The mean score of 3.39 (SA) shows that students fulfill their physical activity requirements, which helps them achieve optimal health.

The limiting sedentary behavior indicator reached a mean score of 3.38 (SA), which produced the lowest average, although it remained within Strongly Agree limits. Students show physical activity participation while they battle against decreased sedentary time. The study by Edelmann et al. (2022) shows that university students display both high physical activity levels and high sedentary behavior levels. People who lead active lifestyles still show prolonged periods of inactivity according to this evidence. The research results demonstrate that students maintain active lifestyles while they develop healthy behavior patterns.

The PATHFit program successfully encourages college students to practice active living and healthy dietary habits, according to the study results, which showed strong rating outcomes throughout all studied areas. The study shows that students spend their daytime hours actively while they maintain healthy behavior patterns throughout the research period. Some students keep showing sedentary behavior patterns, which need extra programs to Support better lifestyle changes and ongoing health improvement activities.

### 3.2. Level of Students' Health and Well-being in terms of Sleep Quality

The study examines students' sleep quality by assessing their sleep duration, sleep pattern consistency, sleep quality, and any sleep problems that interfere with their daily activities. The data show students' sleep pattern Management methods that impact their health results when they participate in the PATHFit program.

**Table 10. Level of Students' Health and Well-being in terms of Sleep Quality**

| Indicators | Mean | VI |
|---|---|---|
| 1. I get 7–9 hours of sleep at night and feel rested during the day. | 3.10 | A |
| 2. My sleep is uninterrupted and restorative. | 3.12 | A |
| 3. I keep a consistent sleep schedule across weekdays and weekends. | 3.11 | A |
| 4. Sleep problems interfere with my daytime functioning. | 3.25 | SA |
| 5. I practice habits that promote good sleep (e.g., reduced screen time before bed, relaxing routine). | 3.24 | A |
| **General Assessment** | **3.16** | **A** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The research results show that students' health and wellbeing assessment for sleep quality received an overall agreement rating of 3.16 (A). The results show that students sleep at acceptable levels, but their sleep quality reaches its highest level at particular times. The findings show that students can keep their essential sleep schedules, but they encounter difficulty reaching sleep periods that restore their body and mind.

Students exhibited moderate sleep duration (M = 3.10, A) and sleep quality (M = 3.12, A) and sleep schedule consistency (M = 3.11, A), which shows they can partially meet sleep requirements, but they face challenges with maintaining sleep patterns and achieving restful sleep. The systematic review (Sleep and physical activity in university students, 2021) shows that students who exercise frequently experience sleep disturbances because their academic obligations, personal habits and surrounding conditions create sleep problems. The students show knowledge of proper sleep hygiene through their M = 3.24 (A) score on good sleep habits, which they fail to practice consistently throughout their activities.

The indicators show that students need to enhance their sleep quality because their physical activity levels do not lead to better sleep. The study results back up the assertion made by Han et al. (2025), which states that physical activity enhances sleep, yet sleep results depend on factors like stress levels, screen time use and lifestyle choices. The study shows that PATHFit program participation needs additional lifestyle Management interventions to Support effective sleep quality.

Students sleep at a moderate level, which fails to reach the highest level of sleep quality. The students who show understanding of proper sleep practices face sleep interruptions that require special treatment. The study results show that sleep deprivation must receive treatment because it represents a major threat to student health and wellbeing within PATHFit.

### 3.3. Level of Students' Health and Well-being in terms of Psychosocial Well-being (Stress, Anxiety, and Self-esteem)

The section evaluates students' psychosocial wellbeing through their ability to handle stress, fight anxiety and maintain healthy self-esteem. The emotional and psychological data help understand how students experience their current state and determine their ability to participate in the PATHFit program.

**Table 11. Level of Students' Health and Well-being in terms of Psychosocial Well-being**

| Indicators | Mean | VI |
|---|---|---|
| 1. I manage stress during academic tasks. | 3.25 | SA |
| 2. I feel anxious about school or daily pressures. | 3.22 | A |
| 3. I feel good about myself and have confidence in my abilities. | 3.26 | SA |
| 4. I feel overwhelmed by stress and anxiety. | 3.15 | A |
| 5. I seek healthy ways to cope with stress and maintain a positive outlook. | 3.31 | SA |
| **General Assessment** | **3.24** | **A** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The students' psychosocial wellbeing showed an overall agreement, which produced a mean value of 3.24 (A) as measured by the overall results. The study found that students display positive wellbeing but they experience moderate anxiety and stress during their academic and daily activities. The evidence shows that students manage their difficulties through partial success while their psychosocial state remains below its best condition.

Students demonstrate stress Management abilities, which they achieve through their active practice of healthy coping methods for stress Management and positive emotional maintenance. Students show positive stress reactions, which allow them to develop their resilience through adaptive coping skills. Han et al. (2025) found that people who exercise achieve better mental health outcomes because their exercise helps them to develop positive coping skills while their stress levels decrease. Ke et al. (2025) demonstrated that students who have supportive environments and physical activity opportunities will develop better self-efficacy and psychological resilience.

Students at the institution show high mean scores, which reflect their self-confidence (M = 3.26, SA) and stress Management abilities (M = 3.25, SA), which demonstrate their ability to maintain positive self-perception while handling academic challenges. Tannoubi et al. (2025) found that physical education improves psychological health and academic performance through its emotional and cognitive engagement components. Physical activity programs that follow structured formats like PATHFit produce self-esteem and confidence growth as their main outcome.

Students show moderate agreement about their anxiety indicators (M = 3.22, A) and their overwhelming feelings (M = 3.15, A) because they still suffer from mental distress, which remains unaddressed by their coping strategies. College students experience continuous stress and anxiety because their academic work, social responsibilities and lifestyle choices all affect their mental wellbeing. The research by Edelmann et al. (2022) shows that university students face both stress and mental health problems, which occur during their active physical exercise periods.

## 4. Extent of Student Development Outcomes as Influenced by the PATHFit Program

The study evaluates how PATHFit participation affects students' academic engagement and their abilities to manage time, lead and work together with others. The research findings demonstrate how physical education programs help students succeed in both their academic studies and personal growth.

### 4.1. Extent of Student Development Outcomes in terms of Academic Engagement

The research investigates how PATHFit participation affects students' ability to concentrate on their studies through their academic performance, study motivation and learning capacity. The research shows how physical activity takes students away from their study work.

**Table 12. Extent of Student Development Outcomes in terms of Academic**

| Indicators | Mean | VI |
|---|---|---|
| 1. Participation in PATHFIT helps me stay focused and engaged in my studies. | 3.59 | SA |
| 2. Participation in PATHFIT supports my motivation for academic tasks. | 3.57 | SA |
| 3. Participation in PATHFIT helps me concentrate in my classes. | 3.54 | SA |
| 4. PATHFIT interferes with my academic responsibilities. | 3.39 | SA |
| 5. PATHFIT contributes to my overall academic productivity and performance. | 3.58 | SA |
| **General Assessment** | **3.53** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The results indicate an overall Strongly Agree level of student development outcomes in terms of academic engagement, as reflected by the general mean of 3.53 (SA). The study reveals that students who participate in the PATHFit program show increased academic engagement, together with improved academic motivation and study efficiency. College students who participate in physical activity demonstrate enhanced academic performance because physical activity leads to better focus and concentration abilities.

The highest mean was obtained for the indicator "Participation in PATHFIT helps me stay focused and engaged in my studies" (M = 3.59, SA). The study demonstrates how physical activity serves to strengthen students' cognitive abilities by improving their focus and concentration. Students who take part in organized physical education sessions show greater mental Awareness and experience less academic exhaustion. The research supports Wang et al.'s (2024) findings, which showed that physical education participation leads to better cognitive abilities and increased academic performance. The research conducted by Han et al. (2025) established that physical activity leads to better mental health outcomes, which result in improved academic concentration and student engagement.

PATHFit helps students succeed because they view this program as a valuable academic tool for their studies, according to their academic productivity score of 3.58 (SA) and their academic motivation score of 3.57 (SA). Tannoubi et al. (2025) found that physical education participation benefits students' academic results because it increases their emotional and cognitive engagement with their schoolwork. The study established that physical activity results in better learning outcomes through improved concentration abilities of students.

The indicator "PATHFIT interferes with my academic responsibilities" received its lowest mean score, which remained within the Strongly Agree range (M = 3.39, SA). The study shows that some students experience a minor conflict between their academic obligations and their participation in PATHFit activities. The rating stays elevated, however, because the academic performance impact from perceived interference remains less than substantial. Mahantagouda (2023) observed that physical education programs require dedication, yet their advantages outweigh any timetable conflicts that arise when they are executed properly.

**4.2. Extent of Student Development Outcomes in terms of Time Management**

This section presents the Extent of student development outcomes in terms of time Management. The data show how PATHFit participation affects students' time Management abilities and their capacity to balance academics with personal life.

**Table 13. Extent of Student Development Outcomes in terms of Time Management**

| Indicators | Mean | VI |
|---|---|---|
| 1. I manage my time to balance PATHFIT sessions and academic work. | 3.52 | SA |
| 2. Participation in PATHFIT helps me prioritize academic and personal tasks. | 3.49 | SA |
| 3. I complete academic assignments on time while managing PATHFIT commitments. | 3.59 | SA |
| 4. PATHFIT sessions conflict with my study schedule. | 3.24 | A |
| 5. PATHFIT encourages me to organize my daily schedule more efficiently. | 3.51 | SA |
| **General Assessment** | **3.47** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The results show that students achieved Strongly Agree reading on their development results through time Management skills, which received a 3.47 average score (SA). The PATHFit program helps students develop their time Management abilities, which enables them to handle academic work and physical exercise together with their daily activities. Students who take part in

organized physical education activities develop better discipline and efficiency, which helps them handle their various tasks effectively. The highest mean score was achieved through the statement "I complete academic assignments on time while managing PATHFIT commitments," which reached a score of 3.59 (SA). The statement shows that students successfully handle their academic work while they participate in PATHFit activities.

The program lets students work through schoolwork while they use study tools that help them stay accountable and productive. Mahantagouda (2023) found that students who practice physical education gain discipline, which helps them manage their time better, leading to academic achievement. The study showed that students who follow structured physical activity programs develop better organizational skills, which help them handle their schoolwork demands. Students can successfully divide their study time between learning activities and physical activities, which results in high mean scores for both academic and PATHFit activities (M = 3.52, SA) and daily schedule Management (M = 3.51, SA).

The research results showed that physical education participation leads to time Management and behavioral control improvements among students, according to Tannoubi et al. (2025). The ability to prioritize tasks (M = 3.49, SA) establishes PATHFit as a program that provides students with vital life skills beyond just physical training. Students report a study time obstacle from PATHFIT sessions, which leads to the lowest mean score on "PATHFit sessions conflict with my study schedule" (M = 3.24, A). Some students face slight challenges with their schedule because of their PATHFit sessions, which interfere with school activities.

The research results show that PATHFit helps students develop their time Management abilities. The students who participated in the study achieved high ratings across multiple assessment categories, which allowed them to balance academic requirements with physical activities while maintaining their task organization and structured daily routines. The study results show that PATHFit helps college students develop their physical fitness, time Management skills, discipline abilities and responsibilities.

### 4.3. Extent of Student Development Outcomes in terms of Teamwork and Leadership Skills

This section describes how students developed their teamwork and leadership abilities through their work in PATHFit and non-PATHFit situations because students used their interpersonal skills to fulfill their leadership duties and work together in teams. The data show that PATHFit training helps students develop social skills that they need to succeed in their studies and in real-life situations.

**Table 14. Extent of Student Development Outcomes in terms of Teamwork and Leadership Skills**

| Indicators | Mean | VI |
|---|---|---|
| 1. PATHFIT helps me apply teamwork skills in other group tasks. | 3.62 | SA |
| 2. PATHFIT helps me lead peers during activities. | 3.55 | SA |
| 3. Skills from PATHFIT help me collaborate with classmates outside of PATHFIT. | 3.62 | SA |
| 4. PATHFIT group activities involve teamwork with shared roles and coordination. | 3.62 | SA |
| 5. PATHFIT activities help me develop confidence in taking initiative within group settings. | 3.60 | SA |
| **General Assessment** | **3.60** | **SA** |

Legend: 3.25–4.00 Strongly Agree (SA); 2.50–3.24 Agree (A); 1.75–2.49 Disagree (D); 1.00–1.74 Strongly Disagree (SD)

The study results demonstrate that students have reached a Strongly Agree status for their development of teamwork and leadership abilities through their average score of 3.60, which corresponds to SA. The study shows that students who participate in the PATHFit program develop better interpersonal skills, which include collaborative abilities, leadership skills and confidence in group situations. Structured physical activities provide students with chances to connect with their peers while they work together and take charge of situations, which results in improved social skills and personal growth for them. Multiple indicators achieved the highest mean through the statements "PATHFIT helps me apply teamwork skills in other group tasks," "Skills from PATHFIT help me collaborate with classmates outside of PATHFIT," and "PATHFIT group activities involve teamwork with shared roles and coordination," all of which obtained a mean score of 3.62, which corresponds to SA

The lowest mean score occurred for the statement "PATHFIT helps me lead peers during activities," which achieved a score of 3.55 that remains within the Strongly Agree category. The student body shows general progress in leadership skill development, yet there exists a chance to establish enhanced leadership training through controlled leadership practice occasions.

Li (2025) states that to achieve complete student leadership development, universities need to create two essential components, which consist of autonomy-supportive environments and guided leadership training sessions.

The research outcomes show that PATHFit successfully helps students build their teamwork capabilities and leadership competencies. The group-based physical activity program produces outstanding results because it enables students to develop their collaboration abilities, communication skills, self-confidence, and leadership potential. The results highlight how essential physical education programs are for creating physical fitness, social skills and interpersonal skills essential to complete student growth.

**5. Relationship Between PATHFit Program Implementation and Level of Fitness Outcomes**

The study shows how much college students at City Colleges of Pampanga achieve fitness results based on how extensively PATHFit program activities are executed. The study investigates how different aspects of program implementation, which include curriculum delivery, facility access, student participation and supply of facilities, will influence student fitness results across different fitness measures, which include cardiorespiratory endurance, muscular strength and endurance, flexibility and measurements of body mass index and waist circumference.

**Table 15. Relationship Between PATHFit Program Implementation and Level of Fitness Outcomes**

| PATHFit Program Implementation | Fitness Outcomes | r-value | N | p-value | Remarks | Decision |
|---|---|---|---|---|---|---|
| Curriculum Delivery | Cardiorespiratory Endurance | -0.22 | 595 | 0.597 | Not Significant | Accept Ho |
| | Muscular Strength and Endurance | 0.012 | 595 | 0.763 | Not Significant | Accept Ho |
| | Flexibility | 0.050 | 595 | 0.219 | Not Significant | Accept Ho |
| | BMI | -0.087 | 595 | 0.033 | Significant | Reject Ho |
| Availability and Accessibility | Waist Circumference | -0.031 | 595 | 0.446 | Not Significant | Accept Ho |
| | Cardiorespiratory Endurance | 0.001 | 595 | 0.980 | Not Significant | Accept Ho |
| | Muscular Strength and Endurance | 0.006 | 595 | 0.881 | Not Significant | Accept Ho |
| | Flexibility | 0.011 | 595 | 0.784 | Not Significant | Accept Ho |
| | BMI | -0.059 | 595 | 0.154 | Not Significant | Accept Ho |
| | Waist Circumference | -0.079 | 595 | 0.055 | Not Significant | Accept Ho |
| Facilities | Cardiorespiratory Endurance | -0.042 | 595 | 0.304 | Not Significant | Accept Ho |
| | Muscular Strength and Endurance | 0.123 | 595 | 0.003 | Significant | Reject Ho |
| | Flexibility | 0.029 | 595 | 0.477 | Not Significant | Accept Ho |
| | BMI | -0.012 | 595 | 0.771 | Not Significant | Accept Ho |
| | Waist Circumference | -0.017 | 595 | 0.675 | Not Significant | Accept Ho |
| Engagement | Cardiorespiratory Endurance | -0.077 | 595 | 0.061 | Not Significant | Accept Ho |
| | Muscular Strength and Endurance | 0.032 | 595 | 0.439 | Not Significant | Accept Ho |
| | Flexibility | 0.090 | 595 | 0.028 | Significant | Reject Ho |
| | BMI | -0.042 | 595 | 0.311 | Not Significant | Accept Ho |
| | Waist Circumference | -0.032 | 595 | 0.442 | Not Significant | Accept Ho |

The results demonstrate that most of the examined variables show no meaningful connection between PATHFit program implementation and fitness results, except for a limited number of cases. The program functions well because the implementation process retains its integrity across all operational aspects, yet the statistical analysis shows no connection between program implementation and specific fitness results. The results show that personal lifestyle choices and how often students engage in activities and their health practices determine their fitness performance more than their common understanding of fitness practices and health practices.

The relationships for availability and accessibility proved to be non-significant, which means that resources and scheduling flexibility and material access do not lead to better fitness results when they exist as fitness resources. Othman et al. (2025) discovered that physical fitness improvement depends on program participation quality and intensity instead of providing users with basic resource access. The study's findings reveal that accessibility needs to exist first, but afterward, I need active participation together with engagement to create fitness progress that I can measure.

The relationship between facilities and muscular strength and endurance showed a significant relationship that reached a p-value of 0.003. The statement shows that strength-related physical activities depend on facilities that need to provide proper space and sufficient equipment. The training facilities that offer students access to advanced equipment make it easier for them to conduct their weight and strength training exercises correctly. The statement made by Zhang and Phee (2025) asserts that facilities must include proper maintenance and proper equipment for their users to achieve better physical performance results and increased physical activity participation. The facilities cannot ensure complete fitness development because they lack important connections to other fitness outcomes.

The relationship with engagement showed a significant connection only to flexibility, which reached a p-value of 0.028. Students who participate more in PATHFit activities show better flexibility results because they practice stretching and mobility

exercises while actively taking part in sessions. Li et al. (2025) discovered that people who regularly practice physical activity develop better flexibility and mobility skills. The links between engagement and other fitness elements show that engagement cannot create changes across all physical fitness aspects.

The results demonstrate that fitness results depend on multiple factors that exist beyond the boundaries of program implementation because they include individual behavior, exercise frequency and lifestyle choices. The research shows that optimal physical fitness outcomes require an integrated approach that uses all effective program delivery methods combined with sustained student participation, behavioral interventions and personalized fitness strategies.

**6. Relationship Between PATHFit Program Implementation and Level of Health and Well-being**

The section establishes the connection between PATHFit program implementation degrees and student health and wellbeing levels at selected City Colleges of Pampanga. The study investigates how different components of program implementation—curriculum delivery, availability and accessibility, facilities, and engagement—are associated with students' physical activity and health behaviors, sleep quality, and psychosocial wellbeing.

**Table 16. Relationship Between PATHFit Program Implementation and Level of Health and Well-being**

| PATHFit Program Implementation | Health and Well-being Variables | r-value | N | p-value | Remarks | Decision |
|---|---|---|---|---|---|---|
| Curriculum Delivery | Physical Activity and Health Behaviors | 0.301 | 595 | 0.000 | Significant | Reject Ho |
| | Sleep Quality | 0.195 | 595 | 0.000 | Significant | Reject Ho |
| | Psychosocial Well-being | 0.261 | 595 | 0.000 | Significant | Reject Ho |
| Availability and Accessibility | Physical Activity and Health Behaviors | 0.393 | 595 | 0.000 | Significant | Reject Ho |
| | Sleep Quality | 0.347 | 595 | 0.000 | Significant | Reject Ho |
| | Psychosocial Well-being | 0.372 | 595 | 0.000 | Significant | Reject Ho |
| Facilities | Physical Activity and Health Behaviors | 0.416 | 595 | 0.000 | Significant | Reject Ho |
| | Sleep Quality | 0.329 | 595 | 0.000 | Significant | Reject Ho |
| | Psychosocial Well-being | 0.384 | 595 | 0.000 | Significant | Reject Ho |
| Engagement | Physical Activity and Health Behaviors | 0.374 | 595 | 0.000 | Significant | Reject Ho |
| | Sleep Quality | 0.274 | 595 | 0.000 | Significant | Reject Ho |
| | Psychosocial Well-being | 0.341 | 595 | 0.000 | Significant | Reject Ho |

The research demonstrates that the degree of PATHFit program execution leads to better student health outcomes across all health assessment measures. The computed p-values, which are below 0.05, lead to null hypothesis rejection in every tested situation. The research results show that program implementation enhancements lead to improved physical activity patterns, better sleep performance and increased psychosocial health among college students.

The instructors observed significant relationships between health domains and curriculum delivery, which particularly affected physical activity and health behaviors (r = 0.301), psychosocial wellbeing (r = 0.261), and sleep quality (r = 0.195) of students. The research demonstrates that effectively implemented educational programs lead to improved health results and better mental health among students. The results Support the findings of Han et al. (2025), who demonstrated that students who participate in structured physical education programs achieve better physical and psychological health through continuous participation and development of healthful habits. The research results, which show that proper physical education instruction leads to improved student health habits and overall wellbeing, match the findings of Mahantagouda (2023).

People showed the strongest links between their availability to resources and their access to resources, which showed the strongest link to their physical activity and health behaviors (r = 0.393) and psychosocial wellbeing (r = 0.372) outcomes. Students who have higher resource access and flexible schedule options, together with inclusive opportunities, tend to develop healthier habits and maintain their mental wellness. The accessible programs show a significant link with sleep quality (r = 0.347), which indicates that these programs help people manage their daily activities and their overall lifestyle.

For engagement, significant relationships were also observed across all variables, particularly in physical activity and health behaviors (r = 0.374) and psychosocial wellbeing (r = 0.341). The students who take part in PATHFit activities demonstrate

better psychological wellbeing together with healthier behaviors. The study shows that student engagement and wellbeing depend on both student motivation and their active participation in academic programs, according to the findings of Suguis and Belleza (2022). The significant relationship with sleep quality (r = 0.274) demonstrates that physical activity leads to better sleep rules and improved general health according to recent scientific studies.

The research shows that the PATHFit program implementation establishes a strong relationship that stays constant throughout the study period. All elements of program implementation led to significant health and wellbeing impacts on all studied variables except for the non-dramatic fitness outcomes. The research results show that students who want to improve their health must complete their program requirements while maintaining contact with their mentors. The results indicate that all elements of PATHFit implementation must become stronger to achieve complete student health benefits and create long-lasting healthy behavior change among students.

**7. Relationship Between PATHFit Program Implementation and Student Development Outcomes**

This section shows how much the PATHFit program implementation affects student development results in the selected City Colleges of Pampanga. The research shows how program implementation elements, which include curriculum delivery and facility accessibility, together with facility access and student engagement performance, affect students' academic participation and their ability to manage time and their capacity to work with others and lead.

**Table 17. Relationship Between PATHFit Program Implementation and Student Development Outcomes**

| PATHFit Program Implementation | Student Development Outcomes | r-value | N | p-value | Remarks | Decision |
|---|---|---|---|---|---|---|
| **Curriculum Delivery** | Academic Engagement | 0.422 | 595 | 0.000 | Significant | Reject Ho |
| | Time Management | 0.374 | 595 | 0.000 | Significant | Reject Ho |
| | Teamwork and Leadership Skills | 0.452 | 595 | 0.000 | Significant | Reject Ho |
| **Availability and Accessibility** | Academic Engagement | 0.473 | 595 | 0.000 | Significant | Reject Ho |
| | Time Management | 0.467 | 595 | 0.000 | Significant | Reject Ho |
| | Teamwork and Leadership Skills | 0.462 | 595 | 0.000 | Significant | Reject Ho |
| **Facilities** | Academic Engagement | 0.519 | 595 | 0.000 | Significant | Reject Ho |
| | Time Management | 0.464 | 595 | 0.000 | Significant | Reject Ho |
| | Teamwork and Leadership Skills | 0.467 | 595 | 0.000 | Significant | Reject Ho |
| **Engagement** | Academic Engagement | 0.507 | 595 | 0.000 | Significant | Reject Ho |
| | Time Management | 0.453 | 595 | 0.000 | Significant | Reject Ho |
| | Teamwork and Leadership Skills | 0.527 | 595 | 0.000 | Significant | Reject Ho |

The study findings show that the degree of implementation for the PATHFit program produces a persistent positive effect that benefits student development across all measured outcomes. All computed p-values are less than 0.05, leading to the rejection of the null hypothesis in all cases. The findings show that the development of academic engagement and time Management skills, together with improved teamwork and leadership abilities, positively result from better program implementation. The curriculum delivery system produced significant positive relationships that applied to all student development outcomes while demonstrating particular strength in teamwork and leadership skills (r = 0.452) and academic engagement (r = 0.422). The delivery of instruction through its effective combination of structure and delivery method enables students to acquire skills for collaborative work, leadership roles and academic participation. The finding supports Wang et al. (2024), who proved that structured physical education leads to both cognitive engagement and skill development successes. The finding supports Tannoubi et al. (2025), who determined that physical education participation helps students develop both academic and social skills. The two factors of availability and accessibility created strong relationships, which showed particular strength in academic engagement (r = 0.473) and time Management (r = 0.467). The study shows that student participation increases when they receive better access to PATHFit resources and opportunities, which helps them finish their academic work and develop effective organizational abilities. The findings match those of Ambubuyog et al. (2025), who showed that learning environments that provide Support and accessibility enable students to engage more and develop their skills. The relationship

between teamwork and leadership skills (r = 0.462) shows that inclusive programs create pathways for students to learn together and develop skills needed for leadership roles. The strongest relationships were observed in facilities, particularly in academic engagement (r = 0.519), indicating that well-equipped and conducive environments significantly enhance students' participation and focus in academic tasks. The finding supports Zhang and Phee (2025), who proved that student engagement and performance improvement depend on the availability of high-quality facilities. The relationships with time Management (r = 0.464) and teamwork and leadership skills (r = 0.467) show that the right physical environments help students develop their discipline and organizational skills and their teamwork abilities.

The study results show that the implementation of PATHFit programs has a major impact on better student development results. Student development variables showed strong positive relationships through all program implementation parts, while the fitness results showed only limited relationships between variables. The results show that PATHFit programs successfully develop students' physical abilities together with their essential academic and life skills. The results show that better program implementation leads to improved student engagement, productivity and leadership skills, which Support their complete development.

**8. Relationship Between Level of Fitness Outcomes and Level of Health and Well-being**

The section demonstrates how college students from the selected City Colleges of Pampanga achieve different fitness outcomes that directly impact their health and wellbeing. The study investigates how students' physical activity and health behaviors, together with their sleep quality and psychosocial wellbeing, are linked to their physical fitness levels in cardiorespiratory endurance, muscular strength and endurance, flexibility and body composition.

**Table 18. Relationship Between Level of Fitness Outcomes and Level of Health and Well-being**

| Level of Fitness Outcomes | Health and Well-being Variables | r-value | N | p-value | Remarks | Decision |
|---|---|---|---|---|---|---|
| Cardiorespiratory Endurance | Physical Activity and Health Behaviors | -0.041 | 595 | 0.313 | Not Significant | Accept Ho |
| | Sleep Quality | -0.031 | 595 | 0.451 | Not Significant | Accept Ho |
| | Psychosocial Well-being | -0.087 | 595 | 0.035 | Significant | Reject Ho |
| Muscular Strength and Endurance | Physical Activity and Health Behaviors | 0.046 | 595 | 0.266 | Not Significant | Accept Ho |
| | Sleep Quality | 0.056 | 595 | 0.170 | Not Significant | Accept Ho |
| | Psychosocial Well-being | 0.063 | 595 | 0.124 | Not Significant | Accept Ho |
| Flexibility | Physical Activity and Health Behaviors | 0.040 | 595 | 0.325 | Not Significant | Accept Ho |
| | Sleep Quality | 0.004 | 595 | 0.922 | Not Significant | Accept Ho |
| | Psychosocial Well-being | 0.036 | 595 | 0.383 | Not Significant | Accept Ho |
| Body Composition (BMI) | Physical Activity and Health Behaviors | -0.022 | 595 | 0.585 | Not Significant | Accept Ho |
| | Sleep Quality | -0.017 | 595 | 0.675 | Not Significant | Accept Ho |
| | Psychosocial Well-being | -0.033 | 595 | 0.423 | Not Significant | Accept Ho |
| Body Composition (Waist Circumference) | Physical Activity and Health Behaviors | -0.083 | 595 | 0.043 | Not Significant | Accept Ho |
| | Sleep Quality | -0.021 | 595 | 0.610 | Significant | Reject Ho |
| | Psychosocial Well-being | -0.068 | 595 | 0.100 | Not Significant | Accept Ho |

The findings show that health and wellbeing in relation to fitness results were not present in most variables and only existed in a small number of specific cases. The research shows that physical fitness matters for health results, but the study only found weak links between fitness and self-reported health points, sleep quality and psychosocial wellbeing results.

The study found that cardiorespiratory endurance showed a significant link with psychosocial wellbeing (p = 0.035) but showed no links with physical activity, health behaviors or sleep quality. The data shows that people who improve their cardiovascular fitness will experience better mental health because of decreased stress and increased self-worth. The research shows that physical activity and aerobic fitness improve mental health results by helping people manage their emotions and

interact with others better, according to Han et al. (2025). The research shows that cardiorespiratory endurance needs other health behaviors and sleep patterns to assist in its direct connection to health results.

The research found no important connections between muscular strength and endurance and any health and wellbeing factors tested. The research shows that students who have better muscular fitness will not change their sleeping patterns, their social and emotional health, or their exercise routines. The research shows that muscular fitness helps people perform better physically, but its effects on health indicators get disrupted by personal exercise choices and general activity patterns.

The research found that flexibility had no important connections with any health and wellbeing factors studied. The research shows that students with different flexibility levels will not experience health behavior changes or psychological wellbeing changes. The research shows that flexibility helps people function physically and prevents injuries, yet it does not affect wider health and wellbeing outcomes. The study found no important connections between body composition (BMI) and any tested variables, which showed that BMI changes did not impact students' health behavior, sleep quality and social wellbeing. The research shows that BMI alone cannot measure complete health because it lacks examination of physical activity, eating habits and mental health aspects. The research results match those of Guo (2024), who stated that body composition requires assessment with other health indicators to evaluate its effect on fitness and wellbeing. The study found that waist circumference had a significant link to sleep quality, while it showed no connections with physical activity or psychosocial wellbeing. The research shows that central body composition affects sleep patterns, but it does so to a limited Extent. The research shows that health outcomes are affected by body composition, but the predictive strength of body composition on health outcomes is weakened because of inconsistent relationships. The study showed that students' health and wellbeing are affected by their fitness achievements. Your study found that cardiorespiratory endurance and waist circumference produced significant results, while all other fitness factors did not show any effect on health behaviors, sleeping patterns or social-emotional health. The research results show that multiple factors, including personal exercise habits, mental health status and environmental conditions, affect health results and wellbeing. The study results show that students' overall wellbeing needs a complete strategy that combines physical activity with behavior changes and mental health assistance.

**9. Relationship Between Level of Fitness Outcomes and Student Development Outcomes**

The study investigates how fitness performance affects student development in college students who study at selected City Colleges of Pampanga. The study investigates how different physical fitness elements show connections with both academic engagement and time Management, teamwork and leadership abilities of students.

**Table 19. Relationship Between Level of Fitness Outcomes and Student Development Outcomes**

| Level of Fitness Outcomes | Student Development Outcomes | r-value | N | p-value | Remarks | Decision |
|---|---|---|---|---|---|---|
| Cardiorespiratory Endurance | Academic Engagement | -0.028 | 595 | 0.496 | Not Significant | Accept Ho |
| | Time Management | -0.046 | 595 | 0.264 | Not Significant | Accept Ho |
| | Teamwork and Leadership Skills | -0.047 | 595 | 0.255 | Not Significant | Accept Ho |
| Muscular Strength and Endurance | Academic Engagement | 0.028 | 595 | 0.497 | Not Significant | Accept Ho |
| | Time Management | 0.049 | 595 | 0.229 | Not Significant | Accept Ho |
| | Teamwork and Leadership Skills | -0.018 | 595 | 0.669 | Not Significant | Accept Ho |
| Flexibility | Academic Engagement | 0.021 | 595 | 0.605 | Not Significant | Accept Ho |
| | Time Management | 0.003 | 595 | 0.933 | Not Significant | Accept Ho |
| | Teamwork and Leadership Skills | 0.015 | 595 | 0.709 | Not Significant | Accept Ho |
| Body Composition (BMI) | Academic Engagement | -0.015 | 595 | 0.719 | Not Significant | Accept Ho |
| | Time Management | -0.058 | 595 | 0.159 | Not Significant | Accept Ho |
| | Teamwork and Leadership Skills | -0.034 | 595 | 0.413 | Not Significant | Accept Ho |
| Body Composition (Waist Circumference) | Academic Engagement | -0.002 | 595 | 0.954 | Not Significant | Accept Ho |
| | Time Management | -0.059 | 595 | 0.149 | Not Significant | Accept Ho |
| | Teamwork and Leadership Skills | -0.043 | 595 | 0.297 | Not Significant | Accept Ho |

The study results establish that fitness outcomes do not have a substantial impact on student development outcomes across all assessment variables. All computed p-values demonstrate values that exceed the 0.05 significance threshold, thus leading to null hypothesis acceptance for all tested situations. The results indicate that different levels of student physical fitness do not create

a statistical effect on their participation in school activities or their capacity to handle their time or lead groups and work with others. No substantial relationships were found between cardiorespiratory endurance and any of the student development variables. The research demonstrates that differences in students' aerobic fitness do not affect their academic performance or their capacity to manage time or develop leadership abilities and teamwork skills. The research shows that physical activity enhances cognitive performance and academic results, but students who have better aerobic fitness do not show any academic improvements. Academic and personal development outcomes results happen because multiple factors that influence students through their physical fitness, motivation, learning environment and personal discipline. The waist circumference measurement showed no significant relationship with student development outcomes, which supports the conclusion that body composition variables do not affect students' academic and developmental competencies. The research proves that fitness outcomes do not create any direct connection with student development outcomes. The study results show that students need physical fitness to maintain their health, yet this factor does not determine their academic engagement, time Management and leadership abilities. The research findings show that better program implementation, student motivation and engagement lead to better outcomes compared to actual implementation of study programs. The study results show that student development requires both physical fitness development and better program design and teaching methods, as well as student involvement.

**10. Difference in PATHFit Program Implementation, Fitness Outcomes, Health and Well-being, and Student Development Outcomes**

The study investigates how different implementation levels of the PATHFit program lead to different fitness results, health benefits and student development results at City Colleges in Pampanga. The research uses one-way Analysis of Variance (ANOVA) to assess whether institutions display significant differences in the studied variables.

**Table 20. Difference in PATHFit Program Implementation and Outcomes Across the two City Colleges**

| Variables | Source | Sum of Squares | df | Mean Square | F | Sig. | Decision | Remarks |
|---|---|---|---|---|---|---|---|---|
| Curriculum Delivery | Between Groups | 0.572 | 1 | 0.572 | 4.384 | 0.037 | Reject Ho | Significant |
| | Within Groups | 77.419 | 593 | 0.131 | | | | |
| | Total | 77.991 | 594 | | | | | |
| Availability and Accessibility | Between Groups | 0.091 | 1 | 0.091 | 0.506 | 0.477 | Accept Ho | Not Significant |
| | Within Groups | 106.452 | 593 | 0.180 | | | | |
| | Total | 106.543 | 594 | | | | | |
| Facilities | Between Groups | 0.560 | 1 | 0.560 | 2.068 | 0.151 | Accept Ho | Not Significant |
| | Within Groups | 160.442 | 593 | 0.271 | | | | |
| | Total | 161.001 | 594 | | | | | |
| Engagement | Between Groups | 0.171 | 1 | 0.171 | 1.028 | 0.311 | Accept Ho | Not Significant |
| | Within Groups | 98.588 | 593 | 0.166 | | | | |
| | Total | 98.759 | 594 | | | | | |
| Physical Activity and Health Behaviors | Between Groups | 0.087 | 1 | 0.087 | 0.253 | 0.615 | Accept Ho | Not Significant |
| | Within Groups | 204.492 | 593 | 0.345 | | | | |
| | Total | 204.579 | 594 | | | | | |
| Sleep Quality | Between Groups | 1.850 | 1 | 1.850 | 3.899 | 0.049 | Reject Ho | Significant |
| | Within Groups | 281.362 | 593 | 0.474 | | | | |
| | Total | 283.212 | 594 | | | | | |
| Psychosocial Well-being | Between Groups | 0.008 | 1 | 0.008 | 0.021 | 0.885 | Accept Ho | Not Significant |
| | Within Groups | 221.549 | 593 | 0.374 | | | | |
| | Total | 221.557 | 594 | | | | | |
| Academic Engagement | Between Groups | 0.041 | 1 | 0.041 | 0.149 | 0.700 | Accept Ho | Not Significant |
| | Within Groups | 162.510 | 593 | 0.274 | | | | |
| | Total | 162.551 | 594 | | | | | |
| Time Management | Between Groups | 0.069 | 1 | 0.069 | 0.233 | 0.630 | Accept Ho | Not Significant |
| | Within Groups | 175.446 | 593 | 0.296 | | | | |
| | Total | 175.515 | 594 | | | | | |
| Teamwork and Leadership Skills | Between Groups | 0.980 | 1 | 0.980 | 4.011 | 0.046 | Reject Ho | Significant |
| | Within Groups | 144.892 | 593 | 0.244 | | | | |
| | Total | 145.872 | 594 | | | | | |

The study used Analysis of Variance (ANOVA) results, which showed that the PATHFit program implementation and outcomes measured different results between the two City Colleges in Pampanga. The null hypothesis about these variables was rejected because specific curriculum delivery ($p = 0.037$), sleep quality ($p = 0.049$), and teamwork and leadership skills ($p = 0.046$) showed significant differences that were found between groups. The institutions display different instructional methods, which lead to differences in both lifestyle results and the development of interpersonal skills.

The significant difference in curriculum delivery indicates that the manner in which PATHFit is implemented varies across the colleges. The combination of faculty training and resource distribution, together with different instructional delivery methods, creates this situation. Tolentino and Sinio (2024) discovered that the implementation of PATHFit depends on both institutional capacity and the instructional methods that educational facilities apply. The different methods that institutions use to deliver their curricula create varied student experiences and program advantages.

The different levels of teamwork and leadership skills show that the colleges develop their students' interpersonal skills at different rates. The organization of PATHFit sessions for group work, collaborative tasks, and leadership training opportunities shows different patterns across the colleges. The research demonstrates that the learning atmosphere and educational delivery methods determine how students acquire their leadership and teamwork abilities, according to findings by Ke et al. (2025). The research found no significant differences between the two groups of people regarding their access to educational materials and their availability and their physical resources and their active participation in activities and their health behaviors and their psychological health and their study participation and their time organization abilities so the null hypothesis for those variables was accepted. The two institutions maintain these aspects at a similar level which indicates their stability. The colleges maintain similar student experiences and outcomes because they follow the CHED standards for PATHFit implementation which results in uniformity across these particular variables.

The research shows that PATHFit implementation and outcomes remain the same between the city colleges except for three areas which include curriculum delivery and sleep quality and teamwork and leadership skills. The results describe two different situations which show that institutions implement their programs in similar ways but they require different improvements and standardization procedures to achieve complete institutional harmony.

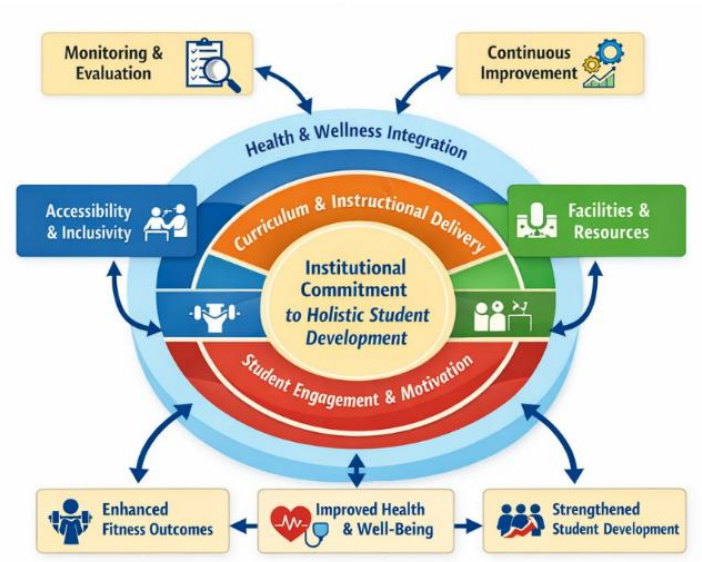
**11. Proposed PATHFit Strategic Framework**

The research results provide a basis for creating the PATHFit Strategic Framework which was developed through numerical data analysis combined with the actual conditions observed at City College of Angeles and Mabalacat City College. The research findings showed that institutional elements which included curriculum delivery and accessibility and inclusivity and facilities and resources and student engagement established the framework for executing PATHFit. The program implementation produced a limited effect on fitness results while it created strong connections with student well-being and health and student development results. The delivery of curricula and sleep quality and teamwork and leadership abilities required development of an implementation framework which should respond to specific needs of the target group.

The proposed framework presents Figure 2 as a system which operates through a continuous loop that integrates four elements which include institutional commitment and program implementation and wellness integration together with continuous improvement to generate lasting results for students. The strategic elements of the framework are embedded within each layer of the model to ensure alignment between planning and implementation.

**Vision**

The PATHFit Strategic Framework envisions the development of physically fit, mentally resilient, and holistically developed college students through a sustainable, inclusive, and evidence-based PATHFit program. This vision reflects the long-term aspiration of higher education institutions to cultivate learners who not only demonstrate optimal physical fitness but also possess the psychological well-being, social competence, and lifelong commitment to health and wellness necessary for personal and professional success. Anchored in the Institutional Commitment to Holistic Student Development, as illustrated in Figure 2, this vision positions PATHFit as a strategic platform for promoting lifelong healthy behaviors and comprehensive student growth.




**Mission**

The mission of the framework is operationalized through the two primary implementation domains identified in Figure 2: Curriculum and Instructional Delivery and Student Engagement and Motivation. These domains serve as the core processes that translate institutional goals into meaningful student experiences.

Curriculum and instructional delivery ensure that PATHFit is implemented through structured, outcomes-based, and student-centered approaches that integrate physical fitness training, wellness education, and experiential learning. Meanwhile, student engagement and motivation emphasize active participation, sustained interest, and meaningful involvement in PATHFit activities, recognizing that engagement is a critical determinant of successful learning and behavioral outcomes. Together, these domains ensure that PATHFit delivers relevant, inclusive, and transformative learning experiences that promote fitness, health, and holistic student development.

**Core Values**

The framework is guided by a set of core values that underpin all aspects of program implementation and are embedded across the different components of the model:

- Holistic Development, which emphasizes the integration of physical, mental, emotional, and social dimensions of student growth;
- Inclusivity and Accessibility, which ensure equitable opportunities for participation regardless of background or ability;
- Student-Centered Learning, which prioritizes learners' needs, interests, and active engagement;
- Wellness Integration, which embeds health and well-being principles across all program components;
- Evidence-Based Practice, which promotes the use of data and research findings in decision-making; and
- Continuous Improvement, which supports ongoing evaluation and refinement of program implementation.

These values are not treated as isolated principles but are reflected in the dynamic interaction of curriculum delivery, engagement strategies, institutional support systems, and wellness interventions within the framework.

**Goals / Strategic Objectives**

Aligned with the Health and Wellness Integration layer of Figure 2, the framework prioritizes targeted and measurable strategic objectives that address the identified gaps in program implementation:

1. To strengthen students' mental wellness and psychosocial well-being through structured support systems and wellness interventions;
2. To improve students' sleep quality and recovery behaviors, recognizing their role in physical performance and overall health;
3. To establish systematic monitoring and intervention mechanisms for at-risk students, particularly those exhibiting low fitness levels, poor engagement, or wellness concerns;
4. To enhance students' body composition and overall fitness outcomes through consistent assessment and targeted physical activity programs; and

5. To increase student engagement and participation through blended learning approaches, integrating both face-to-face and digital learning modalities.

These objectives are specific, targeted, and aligned with the empirical findings of the study, ensuring that the framework directly addresses priority areas for improvement.

Strategies

The realization of these objectives is achieved through strategic approaches embedded within the framework's core and supporting components:

Within Core Processes (Curriculum and Engagement):

- Strengthening curriculum delivery through outcomes-based, wellness-integrated, and student-centered instructional practices;
- Enhancing student engagement through interactive, participatory, and motivational learning strategies that foster active involvement.

Within Supporting Systems (Accessibility and Facilities):

- Improving accessibility and inclusivity by adopting flexible program structures and hybrid (blended) learning modalities, enabling both physical and digital participation;
- Enhancing facilities and resources, including the provision of safe physical spaces, adequate equipment, and technology-enabled learning platforms to support program delivery.

These strategies ensure that both instructional and institutional dimensions of PATHFit implementation are aligned and mutually reinforcing.

**Action Plans**

The strategies are operationalized through specific, targeted, and evidence-based action plans integrated within the framework's components:

Health and Wellness Integration Layer

- Implementation of mental wellness programs, including stress management sessions, mindfulness activities, and counseling referral linkages;
- Conduct of sleep hygiene education campaigns and incorporation of sleep monitoring practices;
- Development of at-risk student profiling systems and implementation of individualized intervention programs;
- Administration of regular fitness and body composition assessments, coupled with targeted exercise and lifestyle intervention programs.

Curriculum and Engagement Components

- Integration of wellness-related topics and activities into PATHFit instructional content;
- Utilization of blended learning platforms, including online modules and digital fitness tracking tools;
- Adoption of active, collaborative, and experiential teaching strategies to enhance student participation.

Accessibility and Facilities Components

- Implementation of flexible scheduling and inclusive program design to accommodate diverse student needs;
- Provision and maintenance of safe facilities, appropriate equipment, and accessible digital learning resources to support both physical and online learning environments.
- These action plans translate strategic intentions into concrete interventions that directly impact student outcomes.

Performance Indicators

Aligned with the Monitoring and Evaluation and Continuous Improvement mechanisms in Figure 2, the framework employs specific and measurable indicators to assess program effectiveness:

- Improvement in fitness outcomes, including cardiorespiratory endurance, muscular strength, and flexibility;
- Positive changes in body composition, as reflected in BMI trends;
- Enhancement of health and well-being indicators, particularly sleep quality and mental wellness;
- Reduction in the number of identified at-risk students;
- Increased levels of student engagement and participation in PATHFit activities; and
- Effective utilization of blended learning platforms and completion of assigned activities.

These indicators serve as benchmarks for evaluating progress and provide a basis for data-driven decision-making and continuous program refinement.

**Program Outcomes**

As illustrated in Figure 2, the implementation of the PATHFit Strategic Framework leads to the achievement of key outcomes:

- Enhanced Fitness Outcomes, reflecting improved physical performance and health-related fitness;
- Improved Health and Well-Being, encompassing physical, mental, and behavioral aspects of student wellness; and
- Strengthened Student Development Outcomes, including academic engagement, time management, teamwork, and leadership skills.

These outcomes represent the tangible realization of the framework's strategic objectives and the institution's commitment to holistic student development.

Overall, the PATHFit Strategic Framework represents a cyclical, dynamic, and interconnected system in which institutional commitment drives program implementation, health and wellness integration ensures targeted interventions, and monitoring and evaluation mechanisms sustain continuous improvement. Each component of the framework is aligned with the structure presented in Figure 2, ensuring coherence between the conceptual model and its strategic application. Through this integrated approach, PATHFit is positioned as a sustainable and transformative program that promotes lifelong fitness, health, and holistic development among college students.

This chapter presents the summary of findings, conclusions, and recommendations derived from the results of the study

1. The PATHFit program showed high implementation across all City Colleges of Pampanga through its assessment of curriculum delivery which received a rating of 3.81 and engagement which received 3.74 and accessibility and availability at 3.69 and facilities which received 3.57 all of which resulted in Strongly Agree interpretation.
2. The students achieved moderate to high fitness outcomes because their majority reached the Excellent and Good levels in cardiorespiratory endurance and muscular strength and endurance and flexibility tests. The body composition results showed 49.92% classification into normal weight category while 17.14% of students were underweight and 17.98% were overweight and 14.96% were classified as obese. Waist circumference measurements demonstrated distribution throughout all risk categories.
3. The student population showed excellent levels of health through their physical activity and health behavior practices which achieved a score of 3.44 categorized as Strongly Agree while their sleep quality received a score of 3.16 categorized as Agree and their psychosocial well-being received a score of 3.24 categorized as Agree.
4. The student development outcomes received high ratings from all assessment categories which included academic engagement with a score of 3.53 and time management through 3.47 and teamwork and leadership skills at 3.60.
5. The PATHFit program implementation had no significant impact on fitness results except for BMI and muscular strength and endurance and flexibility which showed specific relationship patterns.
6. PATHFit program implementation established a strong connection with all health and well-being variables which students exhibited.
7. The PATHFit program implementation showed a significant relationship with student development outcomes across all variables.
8. The relationship between fitness outcomes and health and well-being was generally not significant, with only a few variables showing significant relationships.
9. The relationship between fitness outcomes and student development outcomes was not significant across all variables.
10. The selected variables which included curriculum delivery and sleep quality and teamwork and leadership skills displayed significant differences whereas the majority of variables showed no significant differences among institutions.

Based on the summary of findings, the following are concluded:

1. The implementation of the PATHFit program maintains constant success because schools have built effective systems and teaching methods but their physical fitness results continue to fall short of expectations.

2. Body composition differences demonstrate that students who maintain their fitness through school programs show different results because their personal life choices also shape their fitness levels which need to be addressed with customized approaches.
3. The program currently operates at its highest efficiency to promote physical activity but it struggles to provide effective support for mental health recovery needs and total well-being assessment.
4. The PATHFit program significantly impacts students' academic performance and their ability to manage time and develop leadership skills for their overall development as students.
5. The connection between program implementation and fitness outcomes shows that to improve physical fitness results, a comprehensive method is required which combines physical activity programs with behavioral and lifestyle and health interventions.
6. Students' health and well-being depend on program implementation quality which creates positive health practices and sleep habits and social outcomes in the study of PATHFit program implementation.
7. PATHFit implementation leads to better student development because students tend to improve their academic performance and personal skills through active participation and high-quality teaching.
8. Health outcomes and student development show a weak connection because physical fitness does not completely determine well-being, which must be understood through complete body systems work.
9. The research demonstrates that learning experiences and engagement create bigger impacts on cognitive skills and behavioral abilities and social skills than physical fitness does on student development and student development and learning advancement.
10. The study found that specific institutional practices impact student outcomes despite PATHFit implementation maintaining consistent operations because particular student variables showed significant differences

Based on the summary of findings, the following are concluded:

1. Higher education institutions should sustain and refine PATHFit implementation by strengthening outcomes-based curriculum delivery.
2. Instructors should design structured and differentiated learning activities.
3. Institutions should expand the use of blended (hybrid) learning modalities.
4. Institutions should implement targeted wellness interventions that address identified gaps.
5. The establishment of a systematic identification and monitoring mechanism should proceed to identify at-risk students.
6. Institutions should strengthen integrated health promotion initiatives.
7. Higher education institutions should institutionalize monitoring and evaluation systems for PATHFit implementation.
8. Inter-institutional collaboration and benchmarking should be strengthened.
9. The PATHFit Strategic Framework should be formally adopted and operationalized through the development of a PATHFit Implementation Guide.
10. Future studies will examine the longitudinal and multi-factorial dimensions of student fitness.

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