International Journal on Science and Technology (IJSAT)
E-ISSN: 2229-7677 ● Website: www.ijsat.org ● Email: editor@ijsat.org

Physical Activity Towards Health and Fitness (PATHFit) Skills and Dimension of Well-Being of Students

Julie B. Sarcilla [1], Jesus L. Regacho [2]

[1]Graduate School, Naga College Foundation, Inc. 4400, Philippines
[2]Professor/ Public School Teacher, Department of Education, Graduate School-Naga College Foundation Inc.

Abstract
Physical Activity Towards Health and Fitness (PATHFit) is an essential component of higher education curricula as it promotes physical competence and supports the holistic well-being of students. This study aimed to determine the level of PATHFit skills of first-year Bachelor of Science in Information Technology (BSIT) students in terms of motor skills, endurance, strength, flexibility, and coordination; assess their dimensions of well-being across emotional, social, mental, spiritual, and physical aspects; examine the relationship between PATHFit skills and dimensions of well-being; evaluate the extent of influence of PATHFit skills on well-being; and propose a recreational intervention program based on the findings.

A descriptive-correlational research design was employed involving one hundred first-year BSIT students at Central Bicol State University of Agriculture–Sipocot Campus during the academic year 2025–2026. Data were collected using standardized PATHFit skill assessment tools and a validated well-being questionnaire. Statistical treatments included weighted mean to describe levels of skills and well-being, Pearson's product-moment correlation to determine relationships, and coefficient of determination to assess influence. Results revealed that students demonstrated a good level of PATHFit skills and a generally high level of well-being, with social well-being ranking the highest among the dimensions. Significant relationships were found between PATHFit skills and the physical dimension of well-being, while strength showed a strong relationship with mental well-being. Coordination and strength exhibited moderate influence on physical and mental well-being, respectively. Based on these findings, a recreational intervention program titled Active Minds, Strong Bodies was proposed to enhance PATHFit skills and promote balanced and holistic student well-being.

Keywords: PATHFit skills, Psychological well-being, Student development

1. Introduction

Physical Activity Towards Health and Fitness (PATHFit) is an academic program designed to promote lifelong wellness habits among students by integrating exercise science and health education into their learning experience. It emphasizes the development of essential fitness skills such as cardiovascular endurance, muscular strength, flexibility, and coordination, which are critical for maintaining overall

health. Beyond physical training, PATHFit also fosters discipline, self-awareness, and informed decision- making about lifestyle choices, including nutrition and stress management. Equipping students with these skills, the program prepares them to achieve holistic well-being and to adopt active, healthy lifestyles that extend beyond the classroom.

The dimensions of student well-being encompass physical, emotional, intellectual, social, spiritual, environmental, occupational, and financial aspects that collectively shape a balanced and healthy life. These dimensions highlight that well-being is not limited to physical health but also involves mental resilience, meaningful relationships, and a sense of purpose. In the academic setting, students are encouraged to nurture these interconnected areas to achieve holistic growth and sustain their performance both inside and outside the classroom. Recognizing and developing all dimensions of well-being, students are better equipped to manage challenges, maintain wellness, and thrive in their personal and academic journeys.

PATHFit serves as a bridge between physical activity and the broader dimensions of student well- being, showing how fitness skills directly influence holistic health. Regular exercise enhances physical strength and endurance, while simultaneously reducing stress and improving emotional stability. Group activities foster social connections and teamwork, which in turn support intellectual growth and academic performance. By integrating PATHFit with the dimensions of well-being, students experience a balanced development that nurtures both body and mind, preparing them for healthier and more productive lives.

Globally, physical inactivity has become a major health concern, contributing to rising cases of obesity, heart disease, and diabetes among young people. Students are particularly vulnerable due to increased screen time, academic pressures, and limited access to safe spaces for exercise. PATHFit addresses these challenges by promoting active lifestyles and teaching fitness skills that support multiple dimensions of well-being, including physical, emotional, and social health. Equipping students with holistic wellness practices, PATHFit helps respond to worldwide health issues and prepares them to thrive in a rapidly changing global environment.

In the Philippine context, the issue of student health and well-being is deeply tied to challenges such as limited access to sports facilities, sedentary lifestyles influenced by mobile gaming and social media, and the heavy academic demands placed on learners. Many schools, particularly in rural areas, struggle with resource constraints that hinder the full implementation of mandated physical education programs. As a result, students often lack opportunities for structured physical activity, which contributes to rising cases of stress, poor nutrition, and inactivity. The Department of Education (DepEd) and the Commission on Higher Education (CHED) have emphasized the importance of integrating physical education into the curriculum, yet the gap between policy and practice remains evident. Programs like PATHFit are crucial in bridging this gap by promoting active living and holistic wellness among Filipino students. Connecting physical activity with the dimensions of well-being, Filipino students are encouraged to build healthier habits that support both academic success and personal growth.

While the Department of Education (DepEd) and the Commission on Higher Education (CHED) mandate physical education, many schools face resource constraints that limit implementation. The rise

of academic demands and distractions such as mobile gaming and social media further weakens student motivation to participate in physical activities, negatively affecting both physical fitness and dimensions of well-being. Republic Act 11180 or An Act Requiring Higher Education Institutions to Report Participation and Program Support Expenditures in All College Athletic Program underscores the mandatory reporting by higher education institutions (HEIs) of participation and program support expenditures in all college athletic programs.

Section 2 of the Republic Act No. 11180 states that:

"It is the policy of the State to promote physical education and encourage athletic programs, league competitions and amateur sports,
including training for international competitions, to foster self-discipline, teamwork, and excellence towards the development of a healthy and alert citizenry. All educational institutions are also mandated to undertake regular sports activities throughout the country in cooperation with athletic clubs and other sectors. In line with these objectives, both male and female
athletes shall be given equal opportunities to received proper training and participate in sports activities and competitions."

Global research consistently demonstrates the profound impact of physical activity on both physical and psychological health. The American Heart Association (2017) emphasizes regular exercise as essential for cardiovascular health across all age groups, while Warburton and Bredin (2017) highlight its broad benefits in reducing chronic disease risks. Resistance training has been shown to improve longevity and musculoskeletal health in older adults (Fragala et al., 2019; D'Onofrio et al., 2023). However, aerobic interventions enhance physical performance among the elderly (Bai et al., 2022).

The overall well-being of students must therefore be addressed holistically. There could be an integration of both physical activity and psychological health. Schools, as primary institutions of learning and development, are expected to provide accessible opportunities for physical activity, as well as programs that nurture dimensions of resilience. As highlighted by Nikolajsen et al. (2021), many schools lack recreational spaces, organized fitness initiatives, and trained facilitators, while community awareness of the mental health benefits of physical activity remains low.

This study is significant as it highlights the dual role of physical activities in promoting both the physical fitness and dimensions of well-being of students, addressing pressing concerns over sedentary lifestyles and rising mental health issues among the youth. Its findings will benefit students by encouraging healthier routines and improved academic performance, guide educators and administrators in enhancing school-based wellness programs, and inform parents about the broader impact of active living on their children's stability. Moreover, it provides health professionals and counselors with evidence for designing integrated interventions, offers CHED and higher education institutions empirical support for strengthening the PATHFit curriculum and student wellness initiatives, and serves as a foundation for future researchers to further explore the multifaceted benefits of physical activity in student development.

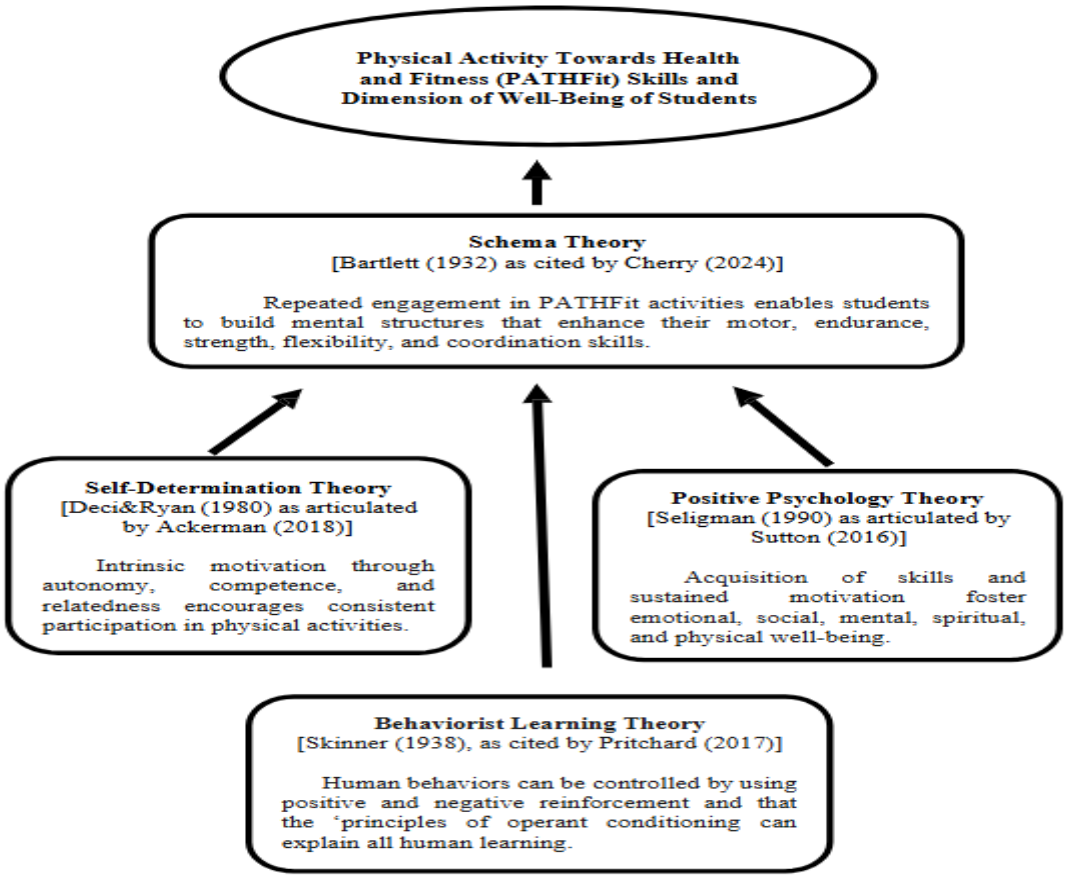
In response to these pressing concerns, this study examines the level of PATHFit skills among first-year BSIT students at CBSUA–Sipocot Campus, focusing on specific physical parameters and their

connection to the dimensions of well-being. The central purpose is to uncover how physical activity influences not only physical health but also emotional, mental, and social wellness, thereby providing evidence-based insights for student development. The most compelling reason for this investigation lies in the urgent need to address sedentary lifestyles and stress-related issues among students, which directly affect academic performance and long-term quality of life. Generating knowledge that can guide recreational interventions and holistic education programs, the study aims to support educators, administrators, and policymakers in bridging gaps in student health promotion while aligning with national priorities and global development goals.

Theoretical and Conceptual Framework

This study was anchored on Schema Theory, introduced by Bartlett (1932) and recently cited by Cherry (2024). As supporting lenses, it draws upon Skinner's Behaviorist Learning Theory by B.F. Skinner (1938) cited by Pritchard (2017), Self-Determination Theory (SDT) by Deci and Ryan in the 1980s cited by Ackerman (2018), Positive Psychology by Seligman (1990) cited by Sutton (2016). These theories provide the foundational framework for examining the relationship between PATHFit skill acquisition and dimensions of well-being among first-year BSIT students. Figure 1 shows the interrelationship of these theories.

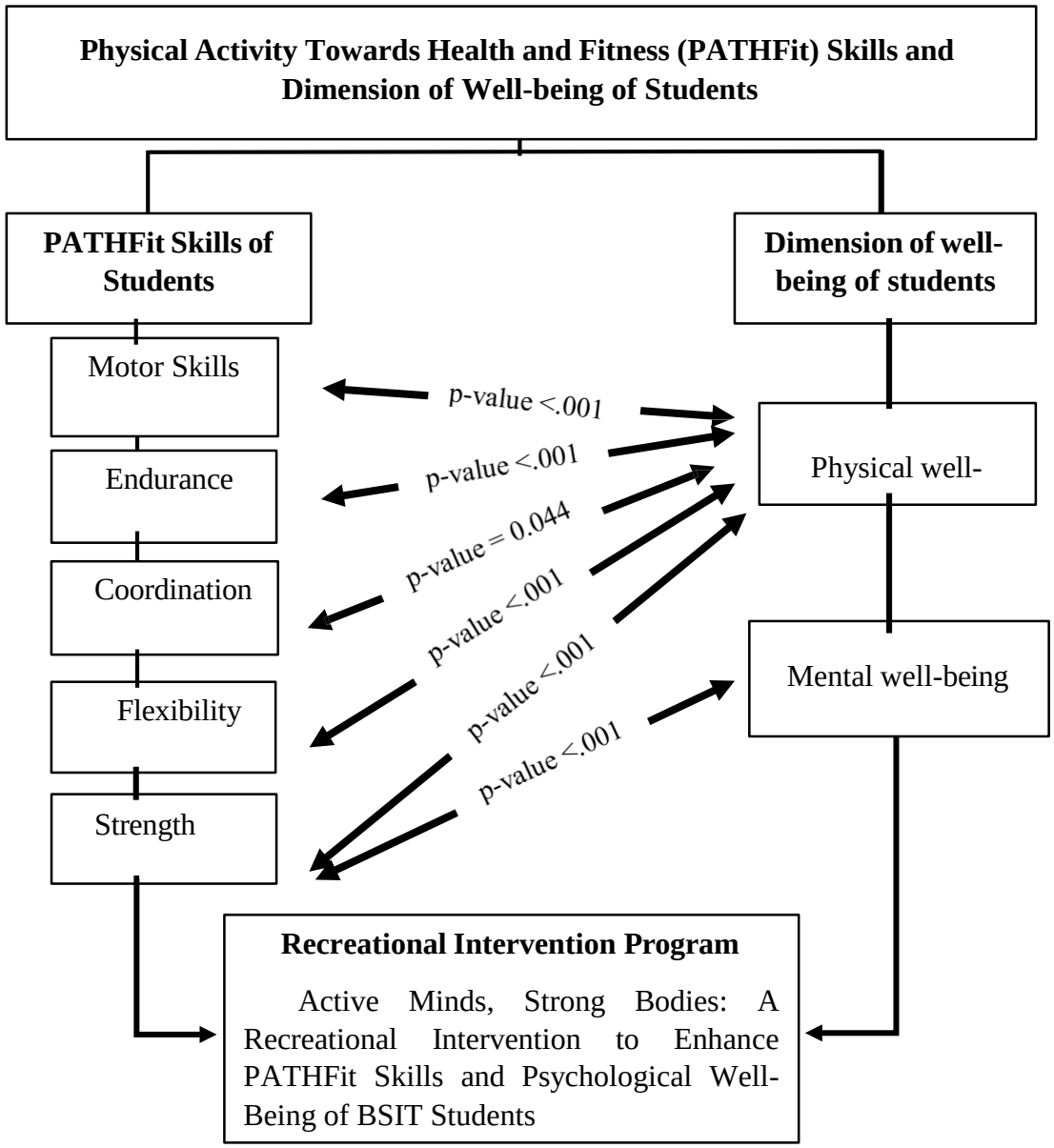
Figure 1 Theoretical Paradigm



Conceptual Framework

Using the theories as a foundation, the researcher created a conceptual framework, as illustrated in Figure 2.

Figure 2 Conceptual Paradigm



2. Methodology

This section presents the overall methodology that the researcher used in conducting the study. It includes the research design, respondents of the study, research instruments, procedures of investigation, and data analysis techniques.

The descriptive-correlational method was employed in this study to systematically describe the levels of Physical Activity Towards Health and Fitness (PATHFit) skills such as motor skills, endurance, strength, flexibility, and coordination, and the dimensions of well-being of first-year BSIT students, while simultaneously determining the relationships between these variables without manipulating them. The descriptive component allowed the researcher to present an accurate profile of students' fitness skills and well-being dimensions using weighted means, whereas the correlational component examined the degree and direction of association between PATHFit skills and various dimensions of well-being through Pearson's Product-Moment Correlation and the coefficient of determination. This design was appropriate because the study aimed to establish existing conditions and relationships as they naturally occurred within the student population. Similar approaches were employed by Granero-Jiménez et al. (2022), who used a descriptive-correlational design to examine the relationship between physical exercise and psychological well-being among young adults, and by Zhong (2024), who investigated the association between physical activity motivations and dimensions of well-being among university students.

The descriptive method was utilized to determine the level of PATHFit skills of students in terms of motor skills, endurance, strength, flexibility, and coordination, as well as their dimensions of well-being across emotional, social, mental, spiritual, and physical aspects. Standardized fitness tests and validated instruments were used to capture reliable data. Similar descriptive approaches were seen in Granero-Jiménez et al. (2022), who examined how physical exercise influenced dimensions of well-being among young adults; Zhong (2024), who analyzed physical activity motivations and their link to dimensions of well-being among university students; and Springer (2025), which evaluated physical activity levels and mental health outcomes, highlighting resilience and reduced vulnerability. These studies reinforced the value of descriptive designs in profiling both physical and dimensions of conditions The correlational method was applied to determine the relationship between PATHFit skills and dimensions of well-being. This was also applied in determining the influence of PATHFit skills on the dimensions of well-being of students. The studies of Zhong (2024), also used canonical correlation to explore links between activity motivations and dimensions of well-being; Granero-Jiménez et al. (2022), who found significant associations between exercise participation and psychological outcomes; and Springer (2025), which confirmed that physical activities positively influenced subjective well-being among college students. These correlational studies supported the investigation of how fitness skills were connected to psychological health, guiding the design of the recreational intervention program.

3. Results and Discussion

This section presented the findings of the study on the PATHFit skills and dimension of well-being of first-year BSIT students at CBSUA–Sipocot Campus during the academic year 2025–2026. The results highlighted the levels of students' physical fitness in terms of motor skills, endurance, strength, flexibility, and coordination, as well as their dimensions of well-being across emotional, social, mental, spiritual, and physical dimensions.

Level of Physical Activity Towards Health and Fitness (PATHFit) Skills of Students

Table 2 presents the level of PATHFit skills of first-year BSIT students at CBSUA–Sipocot Campus. It shows the weighted mean scores, interpretations, standard deviations, and ranks across five skill dimensions: motor skills, endurance, strength, flexibility, and coordination. The overall mean score was also computed to provide a general picture of the students' fitness level.

Across the five aspects, strength ranked highest with a weighted mean of 3.14 and was interpreted as Good. This was followed by flexibility with a mean of 3.11 and an interpretation of "Good", and motor skills with a mean of 3.06 also interpreted as Good. Endurance came next with a mean of 3.02 and was likewise interpreted as Good, while coordination ranked lowest with a mean of 2.94 but still fell under the "Good" category. The overall mean score of 3.04 indicates that the students' PATHFit skills as a whole are at the "Good" level.

Table 2

Level of (PATHFit) Skills of students

Aspects	Weighted Mean	Interpretation	Rank
Motor Skills	3.06	G	3
Endurance	3.02	G	4
Strength	3.14	G	1
Flexibility	3.11	G	2
Coordination	2.94	G	5
Overall	3.04	Good	

Note: The scale is 3.26 to 4.00 referred to Excellent (E), 2.51 to 3.25 Good (G), 1.76 to 2.50 Average (A), and 1.00 to 1.75 Poor (P).

The results indicate that students generally demonstrate a good level of PATHFit skills across various aspects, as reflected by their weighted means which consistently fall within the "Good" level according to the given interpretation. Specifically, skills such as strength, flexibility, endurance, and motor skills are notably rated as good, suggesting that students possess a satisfactory level of competency in these areas. The overall weighted mean confirms this positive assessment, further emphasizing that students' overall PATHFit skills are at a "Good" level.

The results further suggest that students have a solid and stable foundation in PATHFit skills, as reflected in the relatively uniform performance across different skill categories. This consistency implies that instructional strategies, teaching methods, and physical activity routines implemented in the program are effectively promoting balanced skill development. The minimal variance across skill indicators may also indicate that students are receiving equitable learning opportunities and similar levels of engagement in physical activities. Such uniformity suggests that the PATHFit program is functioning as intended, supporting student development in a structured and holistic manner. Therefore, it can be inferred that the instructional framework contributes significantly to the even distribution of skills among learners.

From these findings, it can be inferred that while students' physical fitness levels are satisfactory, they have not yet reached the excellent level, leaving room for further improvement. The slightly lower performance observed in endurance and coordination highlights specific areas where students may

benefit from targeted interventions. Endurance-focused activities, such as aerobic exercises or extended cardiovascular routines, may help students develop greater stamina over time. Likewise, activities designed to improve coordination—such as agility drills, balance exercises, or structured games—can help refine neuromuscular responses and movement efficiency. The results imply that strategic improvements in endurance and coordination are necessary to help students achieve a more comprehensive and balanced fitness profile**.**

Level of Dimension of Well-Being of Students

Table 3f presents the summary of the students' level of well-being across the five major dimensions such as emotional, social, mental, spiritual, and physical, offering an integrated perspective of their holistic wellness. It provides a comprehensive picture of how first-year BSIT students at CBSUA–Sipocot Campus assess their own well-being by combining indicators related to thoughts, behaviors, values, health practices, and social relationships. The table also highlights how these dimensions interact, illustrating the balance between students' intrapersonal strengths such as emotional regulation and cognitive resilience, and interpersonal components such as relationship quality and community participation. The data points reveal the multidimensional nature of students' well-being and serve as a foundation for identifying areas that require reinforcement or targeted support.

Table 3f

Summary of the Level of Dimension of Well-Being of Students

Aspects	Average WM	Int	Rank
Emotional	3.11	High	5
Social	3.26	Very High	1
Mental	3.17	High	3
Spiritual	3.25	High	2
Physical	3.14	High	4
Overall	3.19	High	

Note: The interpretation of mean scores in this study was categorized as follows: a range of 3.26 to 4.00 was considered Very High (VH), 2.51 to 3.25 was interpreted as High (H), 1.76 to 2.50 was rated as Low (L), and 1.00 to 1.75 was classified as Very Low (VL).

Among the five dimensions, social well-being ranked the highest with an average weighted mean of 3.26, interpreted as "Very High." Spiritual well-being followed with a mean of 3.25, while mental well-being registered a mean of 3.17. Physical well-being received a mean of 3.14, and emotional well-being ranked the lowest at 3.11. The overall weighted mean was 3.19, indicating a generally high level of well-being among the students.

The prominence of social well-being may be attributed to the students' frequent engagement in peer interactions, collaborative academic activities, and group-based learning environments, which foster a strong sense of belonging and interpersonal support. These social connections are often reinforced through classroom participation, group tasks, and extracurricular engagements, allowing students to develop communication skills, empathy, and positive relationships. Spiritual well-being also recorded a high rating, suggesting that students possess a sense of purpose, personal values, and inner grounding

that help them cope with academic and personal demands. Meanwhile, the relatively lower mean scores in emotional and physical well-being indicate that while students manage their daily responsibilities reasonably well, challenges such as stress management, emotional regulation, time constraints, and lifestyle habits particularly nutrition, rest, and preventive health practices may still affect these domains. It can be inferred that the students' overall high level of well-being is largely influenced by strong social support systems and a stable sense of personal meaning, which positively shape their academic and interpersonal experiences. The lower ranking of emotional and physical well-being suggests that these areas are more vulnerable to pressures arising from academic workload, lifestyle choices, and limited emphasis on preventive self-care practices. These results indicate that well-being is not uniformly developed across all dimensions and requires targeted strategies to address specific gaps. Hence, while students demonstrate a generally high level of well-being, comprehensive and balanced interventions are necessary to strengthen emotional regulation and physical self-management for sustained holistic wellness.

These results are supported by the findings of Steare and colleagues (2023), who emphasized that stress, anxiety, and depression among students are significantly exacerbated by physical inactivity, underscoring the need to strengthen both emotional and physical well-being. Their conclusions align with the present study's observation that students' weaker emotional and physical scores highlight areas needing immediate attention. Saha and colleagues (2023) further noted that pandemic-induced disruptions to physical education classes and outdoor activities contributed to declines in physical fitness and mental health among learners. Likewise, Ruiz Ranz and Asín Izquierdo (2025) confirmed that regular physical activity fosters mental health and reduces psychological distress in youth, supporting the importance of integrating consistent fitness engagement into students' daily routines.

The findings also resonate with Schema Theory by Bartlett, which explains that repeated engagement in meaningful activities strengthens mental structures that support both physical competencies and psychological resilience. This theoretical lens clarifies why consistent exposure to physical activities can improve students' coping abilities and enhance their overall well-being.

Self-Determination Theory by Deci and Ryan, likewise, highlights autonomy, competence, and relatedness as essential factors for sustained motivation and holistic wellness. The theories affirm that although students demonstrate high levels of well-being, targeted interventions remain necessary to build emotional resilience and strengthen preventive health practices for comprehensive student development.

Relationship between the Level of Physical Activities towards Health Fitness (PATHFit) Skills of Students and their Level of Dimension of Well-Being

Table 4 presents the correlation between the PATHFit skills of first-year BSIT students at CBSUA–Sipocot Campus and their dimensions of well-being, offering a statistical overview of how these variables interact. It displays the r values, interpretations, and p values for each dimension, allowing readers to determine which relationships are strong, weak, or statistically significant. These values highlight how specific physical competencies—such as strength, endurance, coordination, and flexibility, relate to various aspects of wellness, including emotional, social, mental, spiritual, and physical well-being. The table provides meaningful insights into the extent to which students' fitness levels influence their holistic well-being.

The data reveal significant relationships only in selected areas. Motor skills showed a moderate positive correlation with physical well-being, with an r-value of 0.569 and a p-value less than 0.001.
Endurance also had a moderate positive correlation with physical well-being, with an r-value of 0.582 and a p-value less than 0.001. Coordination. demonstrated a high positive correlation with physical well-being, with an r-value of 0.709 and a p-value less than 0.001. Strength showed a high positive correlation with both mental well-being and physical well-being, with r-values of 0.720 and 0.615 respectively, both with p-values less than 0.001. Flexibility revealed a high positive correlation with physical well-being, with an r-value of 0.628 and a p-value of 0.044. These results indicate that significant correlations were found only between PATHFit skills and the physical and mental dimensions of dimensions of well-being.

Table 4

Relationship between Level of PATHFit Skills of Students and Dimension of Well-being

PATHFit Skills	Dimensions of Well-being	r-value	Int	p-value	Int
Motor Skills	Emotional	-0.011	VS	0.911	N/A
	Social	0.165	VS	0.102	N/A
	Mental	0.057	VS	0.577	N/A
	Spiritual	0.121	VS	0.235	N/A
	Physical	0.569	M	<.001	Sig
Endurance	Emotional	0.065	VS	0.521	N/A
	Social	0.103	VS	0.310	N/A
	Mental	0.058	VS	0.568	N/A
	Spiritual	0.062	VS	0.542	N/A
	Physical	0.582	M	<.001	Sig
Coordination	Emotional	0.128	VS	0.205	N/A
	Social	0.108	VS	0.285	N/A
	Mental	0.072	VS	0.478	N/A
	Spiritual	0.013	VS	0.900	N/A
	Physical	0.709	S	<.001	Sig
Strength	Emotional	-0.010	VS	0.922	N/A
	Social	0.071	VS	0.487	N/A
	Mental	0.720	S	<.001	Sig
	Spiritual	-0.066	VS	0.514	N/A
	Physical	0.615	S	<.001	Sig
Flexibility	Emotional	-0.040	VS	0.696	N/A
	Social	-0.106	VS	0.297	N/A
	Mental	0.727	S	0.727	N/A
	Spiritual	-0.165	VS	0.103	N/A
	Physical	0.628	S	0.044	Sig
Overall PATHFit Competence	Overall Psychological Well-being	0.381	Low Correlation	0.708	Not Applicable

Note: Values from ±0.80 to ±1.00 mean the relationship is very strong. From ±0.60 to ±0.79, it is strong.

Between ±0.40 and ±0.59, it is moderate. From ±0.20 to ±0.39, it is weak, and between ±0.00 and ±0.19, it is very weak.

The analysis of the correlation between students' PATHFit skills and dimensions of well-being shows that only physical and mental dimensions demonstrated significant relationships. Skills such as strength, coordination, flexibility, motor skills, and endurance were found to be positively linked with physical well-being, while strength also showed a strong connection with mental well-being. This indicates that the development of physical competencies contributes directly to students' ability to maintain good health and supports their cognitive resilience. In contrast, emotional, social, and spiritual aspects did not show significant relationships, suggesting that these areas of dimensions of well-being are influenced more by external factors such as interpersonal relationships, cultural values, and coping strategies rather than physical fitness alone. The analysis highlights that physical activity plays a crucial role in enhancing students' physical and mental wellness, while other dimensions of psychological health require complementary interventions beyond fitness training.

It can be inferred that while PATHFit skills contribute meaningfully to physical and mental well-being, they do not directly influence emotional, social, or spiritual wellness. This implies that interventions should prioritize integrating physical fitness programs with psychosocial support systems to achieve holistic student development. Schools may need to design recreational interventions that combine structured exercise with counseling, peer interaction, and reflective practices to strengthen the non-physical aspects of dimensions of well-being. Furthremore, this analysis suggests that among the various PATHfit skills, physical competence has a notable and positive association with dimensions of well-being, highlighting its potential importance in promoting mental health. Conversely, other skills such as emotional, social, mental, and spiritual competencies do not appear to have a significant direct impact on dimensions of well-being based on the observed data. This indicates that focusing on enhancing physical skills may be more effective in supporting students' mental health, while the influence of other PATHfit skills may require further investigation or a more nuanced approach.

These results are supported by the findings of Rebar et al. (2015) and Schuch et al. (2016), who confirmed that physical activity significantly reduces depression and anxiety, aligning with the observed significant correlation between strength and mental well-being. Bai et al. (2022) emphasized the effectiveness of aerobic interventions in enhancing physical performance, which supports the strong association between endurance and physical well-being in the study. Additionally, Stults-Kolehmainen and Sinha (2015) highlighted that regular exercise alleviates stress-related impairments, reinforcing the role of physical activity in maintaining psychological stability. The studies validate the conclusion that improving physical competencies enhances both mental and physical components of well-being.

The findings also resonate with Schema Theory by Bartlett, which explains that repeated engagement in physical activities gradually forms mental structures that strengthen both fitness performance and psychological resilience. This theoretical lens supports the idea that consistent participation in PATHFit activities helps students internalize health-promoting habits that become part of their long-term cognitive framework. Positive Psychology Theory by Seligman also aligns with the results because physical and mental strengths contribute to the PERMA model's components of achievement, engagement, and positive emotion. The findings affirm that PATHFit skills significantly influence physical and mental

well-being, while emotional, social, and spiritual dimensions require complementary interventions beyond physical fitness to achieve holistic development.

Influence of Physical Activity towards Health Fitness (PATHFit) Skills of Students on their Level of Dimension of Well-Being

Table 5 presents the extent to which specific PATHFit competencies influence students' dimensions of well-being, offering a detailed analysis of how physical skills contribute to overall wellness. It examines the relationship between motor skills, endurance, coordination, strength, and flexibility with physical well-being, while also assessing how strength specifically relates to mental well-being. By using correlation coefficients and coefficients of determination, the table quantifies the magnitude of these influences, showing how much variance in well-being scores can be explained by each PATHFit competency. The table provides a clearer understanding of which physical skills most strongly affect students' well-being and highlights areas where targeted interventions may yield the greatest benefits.

Table 5

Extent of Influence of Students' PATHFit Skills on Dimension of well-being

PATHFit Skills	Dimensions of Well- being	r-value	r^2-value	Interpretation
Motor Skills	Physical	0.569	0.324	Weak
Endurance	Physical	0.582	0.339	Weak
Coordination	Physical	0.709	0.503	Moderate
Strength	Physical	0.615	0.378	Weak
Flexibility	Physical	0.628	0.394	Weak
Strength	Mental	0.720	0.518	Moderate

Note: The r^2-value measures how strong the relationship is between variables. A value from 0.80 to 1.00 indicates a very strong relationship, while 0.60 to 0.79 shows it is strong. Values between 0.40 and 0.59 represent a moderate relationship, 0.20 to 0.39 indicate a weak one, and 0.00 to 0.19 reflect a very weak relationship.

The data indicate that coordination exerts the moderate influence on students' physical well-being, demonstrating a level of association that reflects its significant contribution to movement quality, bodily control, and overall physical functioning. Strength also shows a meaningful relationship with mental well-being, suggesting that the development of muscular capabilities may play an important role in enhancing cognitive endurance, self-confidence, and emotional regulation. In contrast, motor skills and endurance reveal weaker connections to physical well-being, indicating that while these competencies are important, they may not independently translate into substantial improvements in students' perceptions of their health. Similarly, strength and flexibility display weaker influences on physical well-being, suggesting that isolated fitness skills alone may not be sufficient to drive meaningful improvements without integration into broader health-promoting practices.

It can be inferred that skill-specific physical competencies contribute most reliably to physical health, with coordination standing out as the most impactful for translating movement quality into tangible wellness outcomes. The moderate influence of strength on mental well-being suggests that building muscular competence may support cognitive stamina, self-efficacy, and psychological stability. Conversely, the consistently weak influences of motor skills, endurance, strength, and flexibility on

physical well-being point to the need for more cohesive programming that links skill practice to broader health behaviors such as recovery, nutrition, sleep, and preventive care, ensuring that gains in fitness skills translate into sustained health habits.

Conclusions

1. Students possess generally high levels of PATHFit skills in motor skills, endurance, strength, flexibility, and coordination.
2. Students' dimensions of well-being is high across emotional, mental, spiritual, and physical dimensions, with social well-being rated very high.
3. There are significant relationships only between PATHFit skills and the physical and mental dimensions of dimensions of well-being. Thus, null hypothesis is rejected.
4. Coordination has a moderate influence on physical well-being, while strength has a moderate influence on mental well-being. Other skills such as motor skills, endurance, strength (in relation to physical), and flexibility exert only weak influences. Thus, null hypothesis is rejected.

Recommendations

1. PATHFit instructors should implement routine, skill-specific training sessions focusing on motor skills, endurance, strength, flexibility, and coordination by incorporating progressive drills and performance tasks in regular PATHFit classes to further improve students' fitness competencies.
2. Guidance offices and student support units should conduct regular wellness seminars and monitoring activities that address emotional, mental, physical, social, and spiritual well-being, with particular emphasis on stress management, emotional regulation, and healthy lifestyle practices.
3. Teachers and school administrators should strengthen the integration of physical activity with mental health initiatives by designing activities that explicitly highlight how physical fitness contributes to mental focus, confidence, and physical health.
4. Higher education administrators and PE coordinators should prioritize strength- and coordination-focused fitness programs, as these skills showed meaningful influence on physical and mental well-being, through enhanced training modules and institutional wellness programs.
5. The university administration should adopt and implement the proposed "Active Minds, Strong Bodies" Recreational Intervention Program by allocating time, facilities, and personnel to ensure its sustainable execution in promoting holistic student wellness.

Acknowledgment

"To God be all the glory" This research would not have been possible without the invaluable support, guidance and encouragement of many individuals who contributed significantly to its completion. Above all, the researcher offers heartfelt thanks to God Almighty.

The researcher expresses profound gratitude to her adviser, Jesus L. Regacho, MAEd, for his guidance, expertise and unwavering support the research process.

Sincere appreciation is also extended to Josephine Francia R. Villanueva, PhD,LIB,EdD, Dean of the Graduate Studies and Research at Naga College Foundation, for her significant professional assistance, competence and leadership. Her constructive feedback and perspective critiques greatly strengthened

and improved the quality of this research.

Deep appreciation is likewise conveyed to the panel Chairman, Dr. Fausto C. Romero Jr, and Panel members, Dr. Onward Ognita, Dr. Elizer R. Caculitan, Dr. Delia Villanueva, Dr. Lehai B. Beloro, for their insight and observations, and scholarly contributions that greatly enhanced the refinement of this study.

Sincere appreciation is also extended to Central Bicol State University of Agriculture (CBSUA)– Sipocot for its invaluable support in the completion of this study. The researcher is equally grateful to all respondents who willingly participated and generously devoted their time and effort.

A heartfelt thanks are given to the researcher's family and friends for their constant encouragement, understanding, and moral support, which served as a source of strength and inspiration throughout the entire research process.
entire research process.

Authors' Biography

Julie B. Sarcilla is a dedicated and passionate educator from Ragay, Camarines Sur, Philippines. Born on July 22, 2000, she has demonstrated a strong commitment to teaching and promoting physical education, health, and wellness among students. She earned her Bachelor of Physical Education from Naga College Foundation in 2022 and is currently pursuing a Master of Arts in Education major in Physical Education at the same institution. Her academic journey reflects her continuous desire for professional growth and excellence in the field of education. She is currently serving as a Teacher I at Sisa Feliciano Memorial High School. Prior to this, she worked as an Instructor at Central Bicol State University of Agriculture–Sipocot Campus, where she gained valuable experience in teaching and student engagement. Her research interest focuses on physical education and student well-being. This study highlights the importance of physical activity in enhancing students' overall health, fitness, and holistic well-being.

Jesus L. Regacho is a dedicated educator currently serving as a Professor and Public School Teacher under the Department of Education and the Graduate School of Naga College Foundation, Inc. With years of experience in the field of education, he has consistently demonstrated commitment to academic excellence, professional growth, and the development of learners. As an educator, he plays a significant role in shaping students' knowledge, skills, and values while contributing to the advancement of quality education. Through his passion for teaching and mentoring, Prof. Regacho continues to inspire both students and fellow educators in their pursuit of lifelong learning and educational success.

References

1. Ackerman, C. E. (2018). Self-determination theory of motivation: Why intrinsic motivation matters. PositivePsychology.com.
2. American Heart Association. (2017). Recommendations for physical activity in adults and children. American Heart Association.
3. Bai, Y., et al. (2022). Effects of aerobic interventions on physical performance among the elderly. Journal of Aging and Physical Activity, 30(2), 123–135.
4. Bailey, R. (2006). Physical education and sport in schools: A review of benefits and outcomes. Journal of School Health, 76(8), 397–401. https://doi.org/10.1111/j.1746-1561.2006.00132.x

5. Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.
6. Bartlett, F. C. (1932). Remembering: A study in experimental and social psychology. Cambridge University Press.
7. Biddle, S. J. H., & Asare, M. (2011). Physical activity and mental health in children and adolescents: A review of reviews. British Journal of Sports Medicine, 45(11), 886– 895.
8. Blair, S. N., Cheng, Y., & Holder, J. S. (2001). Is physical activity or physical fitness more important in defining health benefits? Medicine & Science in Sports & Exercise, 33(6), S379–S399.
9. Bouchard, C., Blair, S. N., & Haskell, W. L. (2012). Physical activity and health. Human Kinetics.
10. Boyle, S. E., Jones, G. L., & Walters, S. J. (2010). Physical activity, quality of life, weight status and diet in adolescents. Quality of Life Research, 19(7), 943–954.
11. Brown, D. R., et al. (2013). Physical activity and health: A review of the evidence. American Journal of Lifestyle Medicine, 7(1), 8–15.
12. Cagas, J., et al. (2021). Fitness levels of Filipino students in structured physical education programs.
13. Çakir, S., et al. (2025). Physical activity levels and mental health among youth.
14. Cantell, M., Crawford, S. G., & Doyle-Baker, P. K. (2008). Physical fitness and health in children with developmental coordination disorder. Child: Care, Health and Development, 34(5), 676–682.
15. Caspersen, C. J., Powell, K. E., & Christenson, G. M. (1985). Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. Public Health Reports, 100(2), 126–131.
16. Cerbas, R., & Poralan, J. (2025). Physical activity engagement, self-determination, and mental health among senior high school students.
17. Cheon, S., et al. (2024). Exercise interventions reduce depressive symptoms following ischemic stroke. Neurorehabilitation and Neural Repair, 38(1), 45–56.
18. Cherry, K. (2023). Flexibility in psychology: Definition and examples. Verywell Mind.
19. Cherry, K. (2024). Schema theory in psychology: Applications and examples. Verywell Mind.
20. Cicchella, A., Stefanelli, C., & Massaro, M. (2021). Exercise and immune function in athletes: A review. Sports Medicine and Health Science, 3(4), 189–198.
21. Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98(2), 310–357.
22. Commission on Higher Education (CHED). (2025). PATHFit curriculum guidelines. CHED Memorandum.
23. D'Onofrio, G., et al. (2023). Resistance training and musculoskeletal health in older adults. Ageing Research Reviews, 85, 101–115.
24. de Greeff, J. W., et al. (2018). Effects of physical activity on executive functions in children: A meta-analysis. Journal of Science and Medicine in Sport, 21(5), 501–507.
25. DeBusk, R. (2024). Strength training principles for physical education. Journal of Strength and Conditioning Research, 38(5), 765–772.
26. Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and self-determination of behavior. Psychological Inquiry, 11(4), 227–268.

27. Delagran, L. (2025). Spiritual well-being in education: Meaning and purpose. Journal of Holistic Education, 12(1), 33–47.
28. Dishman, R. K., Heath, G. W., & Lee, I. M. (2013). Physical activity epidemiology (2nd ed.). Human Kinetics.
29. Dishman, R. K., et al. (2006). Physical activity and depression: Evidence from multiple studies. American Journal of Preventive Medicine, 30(5), 449–457.
30. Donnelly, J. E., et al. (2016). Physical activity, fitness, cognitive function, and academic achievement in children. Medicine & Science in Sports & Exercise, 48(6), 1197–1222.
31. Dong, H., & Wang, S. (2025). Impact of physical activity on children's cognitive function and its educational applications: A narrative literature review. Frontiers in Psychology, 16. https://doi.org/10.3389/fpsyg.2025.17203.
32. Dunton, G. F. (2018). Sustaining health-protective behaviors such as physical activity and healthy eating. Health Psychology, 37(5), 468–478.
33. Eime, R. M., et al. (2013). A systematic review of the psychological and social benefits of participation in sport for children and adolescents. International Journal of Behavioral Nutrition and Physical Activity, 10(1), 98.
34. Ekelund, U., Steene-Johannessen, J., Brown, W. J., et al. (2016). Does physical activity attenuate the detrimental association of sitting time with mortality? The Lancet, 388(10051), 1302–1310.
35. Faigenbaum, A. D., & Myer, G. D. (2010). Resistance training among young athletes: Safety, efficacy and injury prevention. Current Sports Medicine Reports, 9(3), 161– 168.
36. Flynn, M. A., et al. (2016). Dimensions of well-being: Definitions, measurement, and applications. Journal of Positive Psychology, 11(3), 233–243.
37. Fox, K. R. (1999). The influence of physical activity on mental well-being. Public Health Nutrition, 2(3a), 411–418.
38. Fragala, M. S., et al. (2019). Resistance training and longevity: Evidence from clinical trials. Sports Medicine, 49(2), 193–206.
39. Gautam, R., et al. (2024). Mental well-being and resilience among university students. Journal of Mental Health, 33(2), 145–156.
40. Granero-Jiménez, A., et al. (2022). Physical exercise and psychological well-being among young adults.
41. Greco, P. (2021). Combined exercise training alleviates burnout among helping professionals. Occupational Health Journal, 29(4), 210–219.
42. Hall, L., & Noonan, C. (2023). Women's mental health and gym-based interventions. Journal of Women's Health, 32(7), 567–575.
43. Harter, S. (1999). The construction of the self: A developmental perspective. Guilford Press.
44. Hayes, A. M., & Feldman, G. C. (2004). Clarifying the construct of mindfulness. Clinical Psychology: Science and Practice, 11(3), 255–262.
45. Hills, A. P., Dengel, D. R., & Lubans, D. R. (2015). Supporting public health priorities: Recommendations for physical education and physical activity promotion in schools. Progress in Cardiovascular Diseases, 57(4), 368–374.
46. Hillman, C. H., Erickson, K. I., & Kramer, A. F. (2008). Be smart, exercise your heart: Exercise effects on brain and cognition. Nature Reviews Neuroscience, 9(1), 58–65. (Found via Hillman's publication list.

47. Janssen, I. (2007). Physical activity guidelines for children and youth. Applied Physiology, Nutrition, and Metabolism, 32(S2E), S109–S121.
48. Janssen, I., & LeBlanc, A. G. (2010). Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. International Journal of Behavioral Nutrition and Physical Activity, 7(1), 40.
49. Jiang, S. J., & Zhang, H. Z. (2025). Exercise as a mediator of wellbeing. Frontiers in Psychology, 16. https://doi.org/10.3389/fpsyg.2025.1443397.
50. Kankonker, P., & Pethkar, R. (2025). Physical activity and mental well-being among adolescents in Goa.
51. Kessler, R. C., et al. (2002). Short screening scales to monitor population prevalences of mental health problems. Psychological Medicine, 32(6), 959–976.
52. Kiliç, M., et al. (2022). Coordination skills in physical education: A review. European Physical Education Review, 28(3), 412–428.
53. Lee, I. M., Shiroma, E. J., Lobelo, F., et al. (2012). Effect of physical inactivity on major non-communicable diseases worldwide. The Lancet, 380(9838), 219–229.
54. Liu, J., et al. (2025). Physical activity and psychological outcomes in educational settings: A correlational review.
55. Lorga, P., et al. (2023). Motor skills development in adolescents. International Journal of Physical Education, 60(2), 89–101.
56. Lubans, D. R., et al. (2016). Physical activity for cognitive and mental health in youth: A systematic review. American Journal of Preventive Medicine, 51(6), 933–942.
57. Mahindru, R., et al. (2023). Physical inactivity and youth development: Global perspectives. Journal of Adolescent Health, 72(1), 34–42.
58. Mandolesi, L., et al. (2018). Neuroprotective effects of physical activity: BDNF and cognition. Frontiers in Neuroscience, 12, 695.
59. Martín-Rodríguez, A., et al. (2024). Physical activity and psychological distress in youth: A systematic review. Children and Youth Services Review, 149, 106–118.
60. McMahon, E. M., et al. (2017). Mental health difficulties and suicidal behaviors among young adults. Social Psychiatry and Psychiatric Epidemiology, 52(5), 539–551.
61. Miles, L. (2007). Physical activity and health. Nutrition Bulletin, 32(4), 314–363.
62. Nieman, D. C., & Wentz, L. M. (2018). The compelling link between physical activity and immune function. Journal of Sport and Health Science, 8(3), 201–217.
63. Nikolajsen, H., et al. (2021). School-based barriers to physical activity and mental health promotion. Scandinavian Journal of Public Health, 49(6), 620–628.
64. Penedo, F. J., & Dahn, J. R. (2005). Exercise and well-being: A review of mental and physical health benefits. Current Opinion in Psychiatry, 18(2), 189–193.
65. Pettee Gabriel, K. et al. (2012). Physical activity domains and sedentary behavior in college students. American Journal of Health Behavior, 36(3), 330–339.
66. Prilleltensky, I. (2014). Meaning-making, well-being, and positive psychology. Global Journal of Community Psychology Practice, 5(1), 1–12.
67. Pritchard, A. (2017). Ways of learning: Learning theories and learning styles in the classroom (3rd ed.). Routledge.
68. Pontifex, M. B., Hillman, C. H., Fernhall, B., Thompson, K. M., & Valentini, T. A.

(2009). The effect of acute aerobic and resistance exercise on working memory. Medicine & Science in Sports & Exercise, 41(4), 927–934. https://doi.org/10.1249/MSS.0b013e3181907d69 .

69. Qiu, Y., et al. (2025). Physical activity and psychological resilience in young students: A meta-analysis.
70. Raghuveer, G., et al. (2020). Endurance and aerobic capacity in youth fitness. Circulation, 142(2), e101–e118.
71. Ramirez-Duran, J. (2021). Social well-being and peer relationships in education. Journal of Social Psychology, 161(4), 389–402.
72. Rebar, A. L., et al. (2015). Exercise as a treatment for depression and anxiety: A metaanalysis. Health Psychology Review, 9(2), 366–378.
73. Republic Act No. 11180. (2019). An Act requiring higher education institutions to report participation and program support expenditures in all college athletic programs. Government of the Philippines.
74. Rosenbaum, S., et al. (2015). Exercise as an adjunct treatment for PTSD: A systematic review. Clinical Psychology Review, 34(5), 617–627.
75. Ruiz-Ranz, J., & Asín-Izquierdo, E. (2025). Physical activity and mental health in adolescents: A review. International Journal of Adolescent Medicine and Health, 37(1), 55–67.
76. Ryff, C. D., & Keyes, C. L. M. (2016). The structure of psychological well-being revisited. Journal of Personality and Social Psychology, 69(4), 719–727.
77. Saha, S., et al. (2023). COVID-19 pandemic and declines in student physical activity. Journal of Physical Education and Health, 12(2), 78–85.
78. Sallis, J. F., Prochaska, J. J., & Taylor, W. C. (2000). A review of correlates of physical activity of children and adolescents. Medicine & Science in Sports & Exercise, 32(5), 963–975.
79. Sanaeifar, M., et al. (2024). Physical activity and neuroprotective effects: Evidence from BDNF studies. Neuroscience Letters, 812, 136–144.
80. Schuch, F. B., et al. (2016). Exercise as a treatment for depression: Meta-analysis of randomized trials. British Journal of Sports Medicine, 50(4), 246–252.
81. Sissons, P. (2024). Emotional well-being in higher education students. Journal of Student Development, 65(1), 23–39.
82. Springer. (2024). Systematic review on physical activity and mental health outcomes. Springer Publishing.
83. Springer. (2025). Study on physical activity and mental health among college students. Springer Publishing.
84. Stanborough, R. (2020). Recreational interventions for health and wellness. Healthline.
85. Steare, R., et al. (2023). Stress, anxiety, and depression among students: The role of physical inactivity. Journal of Educational Psychology, 115(3), 456–468.
86. Strong, W. B., Malina, R. M., Blimkie, C. J. R., et al. (2005). Evidence based physical activity for school-age youth. Journal of Pediatrics, 146(6), 732–737.
87. Stults-Kolehmainen, M., & Sinha, R. (2015). The effects of stress on physical activity and exercise. Sports Medicine, 45(1), 81–121.
88. Sutton, J. (2016). Positive psychology: Theory, research, and applications. Routledge.
89. Tomporowski, P. D., Lambourne, K., & Okumura, M. S. (2011). Physical activity interventions

and children's mental function: An introduction and overview. Preventive Medicine, 52(Suppl 1), S3–S9.https://doi.org/10.1016/j.ypmed.2011.01.028

90. Tremblay, M. S., LeBlanc, A. G., Kho, M. E., et al. (2011). Systematic review of sedentary behaviour and health indicators in school-aged children and youth. International Journal of Behavioral Nutrition and Physical Activity, 8(1), 98.
91. Trudeau, F., & Shephard, R. J. (2008). Physical education, school physical activity, school sports and academic performance. International Journal of Behavioral Nutrition and Physical Activity, 5(1), 10.
92. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. https://sdgs.un.org/2030agenda.
93. Vasco, P., Allocca, S., Casella, C., Colecchia, F. P., Ruberto, M., Mancini, N., Casillo, M., Messina, A., Monda, M., Messina, G., & Polito, R. (2025). Nutrition and physical activity in the university population: A scoping review of combined impacts on psychological well-being, cognitive performance, and quality of life. Journal of Functional Morphology and Kinesiology, 10(4), 374.https://doi.org/10.3390/jfmk10040374.
94. Viduya, R. (2022). PATHFit: Promoting health and fitness in college students. Philippine Journal of Physical Education, 5(1), 12–25.
95. Warburton, D. E. R., & Bredin, S. S. D. (2017). Health benefits of physical activity: The evidence. Canadian Medical Association Journal, 174(6), 801–809.
96. WHO. (2020). Guidelines on physical activity and sedentary behaviour. World Health Organization.
97. White, R. L., Vella, S., Biddle, S., Sutcliffe, J., Guagliano, J. M., Uddin, R., Burgin, A., Apostolopoulos, M., Nguyen, T., Young, C., Taylor, N., Lilley, S., & Teychenne, M. (2024). Physical activity and mental health: A systematic review and best-evidence synthesis of mediation and moderation studies. International Journal of Behavioral Nutrition and Physical Activity, 21, 134. https://doi.org/10.1186/s12966-02401676-6.
98. Yang, M., Wu, J., Wu, Y., & Li, X. (2024). How does physical activity enhance the subjective well-being of university students? A chain mediation of cognitive reappraisal and resilience. Behavioral Sciences, 14(3), 164. https://doi.org/10.3390/bs14030164.
99. Zhong, Y. (2024). Physical activity motivations and dimensions of well-being among university students. Journal of College Student Development, 65(2), 145–160.
100. Zulfarina, M. S. (2016). Physical activity and bone mineral acquisition in adolescents. Journal of Bone and Mineral Research, 31(10), 190–198.