

IMPACT OF RECREATIONAL PHYSICAL ACTIVITIES ON THE WELLNESS AND ACADEMIC PERFORMANCE OF SENIOR HIGH SCHOOL LEARNERS

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Abstract

Senior High School learners increasingly experience academic demands, sedentary habits, and wellness concerns that may affect their physical, psychological, social, and academic development. This study investigated the influence of recreational physical activities on the wellness and academic performance of Senior High School learners. Specifically, it compared the self-reported wellness and academic achievement scores of learners who regularly engaged in recreational physical activities with those who did not, determined significant differences between the two groups, and examined the relationship between recreational activity participation and academic performance. A quantitative comparative-correlational research design was employed. Data were gathered through a researcher-developed recreational physical activity checklist, a standardized wellness questionnaire covering physical, psychological, and social wellness, and official academic achievement records. Descriptive statistics, an independent-samples t-test, and a Pearson product-moment correlation were used to analyze the data. Findings showed that active learners obtained higher wellness scores in physical, psychological, and social domains than non-active learners. Results also revealed a significant difference in the two groups' wellness scores. In terms of academic achievement, learners who regularly participated in recreational physical activities recorded higher scores than their inactive counterparts, with the difference statistically significant. Moreover, participation in recreational physical activities showed a positive and significant correlation with academic performance. These findings suggest that recreational physical activities contribute to learners' holistic wellness and academic success. Based on the results, school-based programs such as wellness breaks, after-school recreational clubs, peer-led group activities, and active lifestyle campaigns are recommended to promote learner well-being and academic performance.

Keywords: Recreational Physical Activities, Wellness, Academic Performance, Senior High School Learners, Active Lifestyle, Holistic Development

1. Introduction

Senior High School learners are increasingly negotiating academic pressure, sedentary digital habits, and psychosocial concerns during a developmental period when wellness and school performance are closely interdependent. Adolescence is marked by rapid biological, emotional, social, and cognitive transitions; thus, habits formed during this stage may shape both present functioning and long-term health behavior. Within the school context, wellness is not only a health concern but also an educational one, as learners who experience fatigue, stress, weak social connections, and low self-regulation may struggle to sustain attention, complete academic tasks, and participate meaningfully in class. The World Health Organization (WHO, 2020) recommends that children and adolescents accumulate at least 60 minutes of moderate-to-vigorous physical activity daily, yet recent global estimates indicate that about 4 in 5 adolescents do not meet these recommendations (WHO, 2024). This situation suggests that schools should examine practical, enjoyable, and inclusive forms of movement that may support learner development without limiting participation to competitive athletics.

Recreational physical activities provide one such pathway. Unlike varsity sports or performance-oriented training, recreational physical activities are voluntary, enjoyable, and usually non-competitive movements performed during free time, including walking, jogging, biking, dance fitness, outdoor games, aerobics, and informal team play. Their educational value lies in their accessibility: learners with different abilities, interests, body types, and skill levels may participate without the pressure of elite performance. The WHO global action framework recognizes active recreation, play, sport, and school-based movement opportunities as important strategies for reducing physical inactivity and improving population health (WHO, 2018). In the Philippine Senior High School context, Physical Education and Health also emphasizes health-optimizing physical activity, fitness, and lifelong wellness, indicating that movement-based learning is part of holistic learner formation rather than a peripheral school activity (Department of Education, 2018). These policy directions support the view that schools should not only teach academic content but also provide environments where learners can develop active, balanced, and socially connected lifestyles.

A growing body of empirical literature links physical activity with adolescent wellness. Systematic reviews indicate that physical activity is associated with better mental health outcomes among children and adolescents, including lower depressive symptoms and improved psychological functioning (Biddle et al., 2019; Rodriguez-Ayllon et al., 2019). These effects may operate through several mechanisms: movement can reduce physiological stress responses, improve sleep quality and perceived energy, increase self-efficacy, and provide opportunities for peer interaction and a sense of belonging. For adolescents who often face academic workload, identity development, and social adjustment, recreational activities may function as an adaptive coping resource. This is particularly relevant for Senior High School learners, who are expected to manage specialized subjects, career preparation, family expectations, and transition-related decisions. When recreational physical activity is embedded in school culture, it may strengthen physical wellness while also supporting psychological and social wellness—domains that are essential to holistic education.

Physical activity is also relevant to academic performance because cognition and learning are influenced by physical and emotional conditions. Evidence from systematic reviews shows that physical activity can support cognitive outcomes such as attention, executive function, processing speed, and academic-related performance, although the strength of effects may vary by activity type, duration, intensity, and research design (Singh et al., 2019). Likewise, the WHO guidelines identify cognitive outcomes, including academic performance and executive function, as health-related benefits of physical activity for children and adolescents (WHO, 2020). Recreational activities may therefore contribute indirectly to academic achievement by improving concentration, mood regulation, motivation, classroom readiness, and persistence. However, the relationship should not be interpreted simplistically. Academic outcomes are also shaped by teaching quality, socioeconomic conditions, parental support, study habits, nutrition, sleep, and school resources. For this reason, localized empirical investigation remains necessary to determine whether physically active learners differ meaningfully from less active learners within a specific school context.

Despite the recognized benefits of physical activity, many school systems continue to prioritize academic achievement and assessment outcomes, sometimes at the expense of daily opportunities for movement. The challenge is not merely to encourage physical activity in general, but to identify whether recreational participation is associated with measurable differences in wellness and academic achievement among learners. This distinction is important because recreational activities are more inclusive than formal competitive sports and may be easier for schools to sustain through wellness breaks, after-school clubs, peer-led activities, and activity-integrated classroom routines. In addition, national concern for student well-being is reinforced by the Philippine Mental Health Act, which establishes the promotion and protection of mental

health as a public policy priority (Republic Act No. 11036, 2018). Within this policy climate, schools have a strong basis for adopting preventive, developmentally appropriate, and evidence-informed wellness interventions.

Accordingly, this study investigates the impact of recreational physical activities on the wellness and academic performance of Senior High School learners. It specifically examines the mean self-reported wellness scores of learners who regularly engage in recreational physical activities and those who do not, across physical, psychological, and social wellness domains. It further determines whether significant differences exist between the two groups in wellness and academic achievement, and whether participation in recreational physical activities is significantly correlated with performance scores. By generating school-level evidence, the study aims to clarify the educational significance of recreational physical activities and provide a basis for proposed programs that promote active lifestyles, learner wellness, and improved academic performance.

2. Method

2.1 Research Design

The study employed a quantitative comparative-correlational research design to determine the influence of recreational physical activities on the wellness and academic performance of Senior High School learners. The comparative component examined whether statistically significant differences existed in the self-reported wellness and academic achievement scores of learners who regularly engaged in recreational physical activities and those who did not. This design was appropriate because the study sought to compare two distinct learner groups based on measurable outcomes, particularly physical, psychological, and social wellness, as well as academic achievement. Meanwhile, the correlational component was utilized to determine the degree and direction of association between learners' participation in recreational physical activities and their academic performance. Since the variables were expressed numerically and subjected to statistical analysis, the quantitative approach enabled objective measurement, systematic comparison, and empirical interpretation of the findings. Overall, the design provided a rigorous methodological basis for determining group differences, identifying meaningful relationships among the study variables, and generating evidence-based inputs for proposed school programs to promote recreational physical activities, learner wellness, and academic performance.

2.2 Participants

The study was conducted with Senior High School learners enrolled at Dagupan City National High School during the period covered by the investigation. A total of 150 learners served as respondents and constituted the primary data source for the study. They were selected using an appropriate sampling procedure to ensure fair representation of learners who regularly engaged in recreational physical activities and those who did not. The participants provided data on their demographic profiles, the frequency and duration of recreational physical activity, and self-reported wellness across physical, psychological, and social dimensions. Their academic achievement scores were obtained from official school records with proper authorization and were matched with the survey responses using coded identifiers to maintain confidentiality. The inclusion of Senior High School learners was appropriate because this group experiences increasing academic demands and developmental transitions that may influence both wellness and school performance. Thus, the selected participants provided sufficient empirical data for comparing wellness and academic achievement between active and inactive learners and for determining the relationship between recreational physical activity participation and academic performance.

2.3 Instrumentation

The study employed three primary instruments to gather the quantitative data required for the investigation. First, a researcher-developed Recreational Physical Activity Checklist was used to assess learners' participation in recreational physical activities, including frequency, duration, and type of activity. This instrument enabled the classification of respondents into active and non-active learner groups. Second, a standardized wellness questionnaire was used to measure learners' self-reported wellness across three domains: physical, psychological/emotional, and social. The questionnaire used a Likert-scale format, allowing respondents to indicate the extent to which each statement described their wellness condition. Third, official academic achievement scores were obtained from school records to provide an objective measure of the learners' academic performance. These records were matched with survey responses through coded identifiers to ensure confidentiality and accuracy. Taken together, these instruments provided complementary data sources: self-reported measures for activity participation and wellness, and verified school-based records for academic achievement. Their combined use strengthened the study's validity by allowing the researcher to compare wellness and academic performance between active and inactive learners and to examine the relationship between recreational physical activity participation and academic outcomes.

2.4 Data Analysis

The data gathered in the study were analyzed using appropriate descriptive and inferential statistical procedures aligned with the comparative-correlational nature of the research. Descriptive statistics, including frequency distributions, means, and standard deviations, were used to summarize learners' participation in recreational physical activities, their self-reported wellness scores in the physical, psychological, and social domains, and their academic achievement scores. To determine whether significant differences existed between learners who regularly engaged in recreational physical activities and those who did not, the independent-samples t-test was employed for both wellness and academic performance measures, with Levene's Test for Equality of Variances used to assess the assumption of homogeneity of variances where necessary. To examine the relationship between participation in recreational physical activities and academic performance, the Pearson product-moment correlation coefficient was used to assess the strength and direction of the association. The hypotheses were tested at the .05 level of significance, thereby allowing the researcher to establish whether the observed differences and relationships were statistically meaningful. The results of these analyses provided an empirical basis for interpreting the impact of recreational physical activities on learner wellness and academic performance and for formulating school-based programs responsive to the findings.

3 Results

The study found that Senior High School learners who regularly engaged in recreational physical activities reported higher self-reported wellness scores than those who did not. Across the three wellness domains, active learners consistently showed better outcomes, with mean scores of 4.21 in physical wellness, 4.09 in psychological wellness, and 4.15 in social wellness. In contrast, non-active learners obtained lower mean scores of 3.58, 3.47, and 3.62, respectively. The overall mean wellness score of active learners was 4.15, while non-active learners obtained an overall mean of 3.56. These findings suggest that regular participation in recreational physical activities may be associated with improved physical vitality, emotional stability, and social functioning among learners.

The independent-samples t-test further confirmed that the difference in wellness scores between active and inactive learners was statistically significant. Active learners had a mean wellness score of 4.15 (SD = 0.38), while non-active learners had a mean score of 3.56 (SD =

0.41). The computed t-value of 4.72 and p-value of 0.000 indicated a significant difference between the two groups. This result implies that learners who regularly participated in recreational physical activities demonstrated significantly better wellness than their non-active counterparts. The finding supports the assumption that recreational physical activities contribute not only to physical health but also to psychological and social well-being.

In terms of academic achievement, the study found that learners who regularly engaged in recreational physical activities also obtained higher academic performance scores. Active learners recorded a mean academic achievement score of 87.35, while non-active learners obtained a lower mean score of 83.27. This difference suggests that learners who participated in recreational activities may have benefited from improved focus, motivation, emotional regulation, and readiness for learning. Since academic performance is influenced by multiple factors, the result should be interpreted as an observed association rather than direct proof of causation; nevertheless, it provides meaningful evidence that active learners performed better academically than those who were less physically engaged.

The statistical test on academic achievement scores showed that the difference between the two groups was significant. Active learners obtained a mean score of 87.35 with a standard deviation of 3.95, while non-active learners obtained a mean score of 83.27 with a standard deviation of 4.22. The computed t-value of 3.89 and p-value of 0.000 confirmed that the academic performance of active learners was significantly higher than that of non-active learners. Furthermore, the Pearson correlation analysis showed a positive and significant relationship between recreational physical activity participation and academic performance ($r = 0.42$, $p = 0.001$). This indicates that as participation in recreational physical activities increased, academic performance also tended to improve.

Based on these findings, the study identified the need to strengthen school-based programs that promote recreational physical activity among Senior High School learners. The proposed programs included weekly wellness breaks, academic-recreational integration strategies, after-school recreational activity clubs, peer-led group fitness and activity sessions, and a schoolwide active lifestyle campaign. These programs directly address the observed differences in wellness and academic performance, as well as the positive relationship between activity participation and achievement. Overall, the results suggest that recreational physical activities are valuable components of holistic learner development and should be incorporated into school wellness and academic support initiatives.

4. Discussion

The study found that Senior High School learners who regularly engaged in recreational physical activities achieved higher levels of physical, psychological, and social wellness than those who did not. This result is consistent with the broader literature, which emphasizes that physical activity contributes to adolescent well-being by supporting physical fitness, emotional regulation, stress reduction, and social connectedness. The World Health Organization (2020, 2024) affirms that regular physical activity among children and adolescents promotes physical fitness, cognitive development, and mental health. Similarly, Rodriguez-Ayllon et al. (2019) reported that physical activity is positively associated with mental health outcomes among children and adolescents, while Biddle et al. (2019) emphasized that movement-based participation may contribute to better psychological functioning. In this context, the higher wellness scores of active learners suggest that recreational activities may serve as accessible wellness-promoting experiences that help learners manage academic pressure and developmental challenges.

The significant difference in wellness scores between active and non-active learners further strengthens the interpretation that recreational physical activity is meaningfully associated with holistic learner wellness. This finding indicates that the benefits of activity participation extend

beyond bodily fitness and may include psychological and interpersonal gains. Recreational activities such as walking, jogging, biking, dance workouts, and non-competitive games provide learners with opportunities for enjoyment, emotional release, peer interaction, and the development of self-confidence. These outcomes align with the view that school-based physical activity should not be limited to competitive sports but should include inclusive and enjoyable forms of movement that encourage broader participation. Masini et al. (2022) found that school-based active-break interventions among pre-adolescent and adolescent students may improve physical activity levels, classroom behavior, cognitive functions, and well-being. Thus, the present findings corroborate the importance of integrating recreational movement into school wellness initiatives.

In terms of academic achievement, the study found that active learners achieved higher mean scores than non-active learners. This finding is supported by evidence suggesting that physical activity may enhance academic functioning through improved attention, executive function, motivation, and classroom readiness. Singh et al. (2019) concluded that physical activity interventions can support cognitive and academic performance among children and adolescents, particularly when activities are developmentally appropriate and properly integrated into school contexts. The positive academic performance of active learners in the present study may therefore be partly linked to the cognitive and emotional benefits of regular movement. However, the result should be interpreted with caution, as academic performance is also shaped by multiple factors, including teaching quality, study habits, family support, socioeconomic conditions, sleep, nutrition, and learner motivation.

The significant difference in academic achievement scores between active and inactive learners provides additional evidence that recreational physical activity may be associated with better academic outcomes. This does not necessarily establish direct causation, but it supports the idea that learners who maintain active lifestyles may possess conditions that favor academic success. Physical activity may help reduce stress, improve alertness, support emotional stability, and enhance self-regulation, all of which are relevant to learning. The positive and significant correlation between recreational activity participation and academic performance further indicates that as learners' involvement in recreational physical activities increases, their academic performance also tends to improve. This relationship supports the study's conceptual assumption that wellness and academic functioning are interconnected dimensions of learner development.

Taken together, the findings support the development of school-based programs that promote recreational physical activity as part of a broader strategy to improve learner wellness and academic performance. The proposed programs, such as weekly wellness breaks, after-school recreational clubs, peer-led fitness sessions, academic-recreational integration strategies, and schoolwide active lifestyle campaigns, are aligned with international recommendations encouraging schools to create supportive environments for physical activity (WHO, 2020). Given that WHO (2024) reported that a large proportion of adolescents globally do not meet recommended physical activity levels, schools have an important role in addressing sedentary behavior through structured, inclusive, and enjoyable movement opportunities. Therefore, the study's results provide empirical support for strengthening recreational physical activity programs as a practical approach to promoting holistic development among Senior High School learners.

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