

IMPACT OF NUTRITION AND HEALTH STATUS ON CLASSROOM PERFORMANCE OF PHYSICAL EDUCATION TEACHERS IN PUBLIC SCHOOLS

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Abstract

This study examined how nutritional status and health status influence the classroom performance of Physical Education (PE) teachers at Mapandan National High School. Using a quantitative correlational design, all PE teachers in the school ($N = 25$) were included through total population sampling. Nutritional status was described through body mass index (BMI) and dietary habits, while health status was assessed through self-reported energy levels and absenteeism. Classroom performance was obtained from teachers' official performance ratings and related indicators of lesson preparation, instructional delivery, and classroom management. Descriptive statistics (frequency, percentage, and weighted mean) summarized the variables, while Pearson product-moment correlation tested relationships at the 0.05 level of significance.

Results showed that most teachers had normal BMI, with smaller proportions classified as underweight, overweight, or obese. Dietary habits and overall health status were rated high, indicating generally favorable nutrition practices, strong energy and endurance, and low absenteeism. Classroom performance was likewise high (overall $M \approx 4.37$). Correlation analysis revealed a significant moderate positive relationship between nutritional status and classroom performance ($r = 0.52$, $p = 0.03$) and a significant strong positive relationship between health status and classroom performance ($r = 0.68$, $p < 0.01$). These findings suggest that PE teachers who maintain healthier nutritional profiles and better health conditions tend to demonstrate higher classroom effectiveness.

Based on the results, a wellness program emphasizing nutrition education, regular physical activity, stress management, and periodic health monitoring is proposed to sustain and further improve PE teachers' well-being and teaching performance.

Keywords: Nutritional Status, Health Status, Body Mass Index, Dietary Habits, Energy Level, Absenteeism, Classroom Performance, Physical Education Teachers

1. Introduction

Health and nutrition are foundational to human functioning and work productivity. A healthy diet protects against malnutrition and noncommunicable diseases, supports energy balance, and maintains the physical capacity needed for daily tasks (World Health Organization [WHO], 2020). Likewise, regular physical activity and good health are associated with better brain function, memory, and concentration—skills that are directly relevant to teaching and classroom decision-making (Centers for Disease Control and Prevention [CDC], 2025). In school settings, these realities matter because teachers' physical and mental conditions shape their consistency at work, their stamina for instruction, and ultimately their effectiveness in delivering lessons. Recent literature underscores that teachers face significant health risks related to occupational stress and burnout, which are linked to poorer physical well-being and work functioning (Naghieh et al., 2022; Pressley, 2021). When teachers are unwell, performance can decline through fatigue, reduced instructional energy, and absenteeism.

Physical Education (PE) teachers occupy a particularly demanding role within this context. Their work requires sustained movement, demonstration of physical skills, and real-time supervision of active learners. Beyond teaching content, they serve as visible role models of

healthy lifestyles for students. Studies focusing on PE educators emphasize that ideal nutritional status strengthens professional competence and credibility, because teachers who display healthy weight and habits tend to model fitness more effectively and reinforce health behaviors in learners (Norfai et al., 2023). Conversely, abnormal nutritional status—such as underweight or overweight BMI—can be associated with physical limitations, reduced endurance, and health complications that may interfere with performance in physically intensive teaching environments (Norfai et al., 2023). A related study among school professionals found that BMI and nutrition-related knowledge are correlated with job performance, suggesting that healthier body weight and better dietary practices may translate into stronger work outcomes (Al-Mohaimed et al., 2024). These findings suggest that nutrition is not simply a personal matter for PE teachers; it is an instructional issue that can influence teacher effectiveness and learner experience.

Health status complements nutrition in shaping performance. Teachers with higher energy levels and fewer illness-related absences are more likely to sustain quality teaching over time. In contrast, frequent absenteeism disrupts lesson continuity, reduces student learning opportunities, and often reflects deeper physical or mental health strain (Biasi et al., 2025; Pressley, 2021). Absenteeism is also increasingly understood as connected to job stress and burnout, which are prevalent in the teaching profession worldwide (Naghieh et al., 2022; Zee & Koomen, 2016). For PE teachers, whose delivery depends on physical presence and vigor, even short-term reductions in health can be especially consequential. Thus, assessing health through indicators such as energy levels and absenteeism is a meaningful way to gauge how well teachers meet the daily demands of PE instruction.

In the Philippine public-school system, teacher wellness is an explicit institutional concern. The Department of Education (DepEd) has expanded health-promoting initiatives such as the Healthy Learning Institutions (HLI) program and Oplan Kalusugan sa DepEd, reflecting a national push to create healthier school environments through nutrition education, physical activity, and preventive health services (Department of Education, 2022; Magsambol, 2025). While these programs are often framed around learner well-being, they also imply the need for teacher wellness, since educators implement and model these health standards. Filipino principals and schools have likewise explored wellness programs for teachers, emphasizing nutrition awareness, fitness activities, and health monitoring as pathways to sustain teacher productivity (Delos Reyes & Toreno, 2021). However, many school-based efforts still rely on general assumptions about health and performance rather than data that identify which wellness factors most strongly relate to effective teaching in specific contexts.

Despite growing attention to teacher wellness, empirical local research linking PE teachers' nutrition and health status to their classroom performance remains limited, especially in smaller public secondary schools. Most studies in the Philippines focus broadly on teacher stress or wellness perceptions, with fewer examining measurable indicators such as BMI, dietary habits, energy levels, and absenteeism as predictors of instructional performance. This gap matters because PE teachers operate in a uniquely physical teaching space where nutrition- and health-related risks may have more precise and more immediate effects on classroom functioning than in less physically demanding subjects. Without localized evidence, school leaders may find it difficult to prioritize wellness strategies or justify program resources.

To address this need, the present study investigated the nutritional and health status of PE teachers in Mapandan National High School and examined their relationships with classroom performance. BMI and dietary habits assessed nutritional status, while energy levels and absenteeism measured health status. Classroom performance was assessed using teachers' official performance ratings and classroom-related indicators. By determining whether and how nutrition and health relate to PE teachers' effectiveness, the study provides an evidence base for practical interventions. Specifically, the findings are intended to guide the development of a contextualized wellness program that supports PE teachers' health and, by extension, improves

instructional quality and student outcomes. In line with DepEd's broader health agenda, such evidence-based wellness planning contributes to strengthening both teacher well-being and school performance.

2. Method

2.1 Research Design

The study employed a quantitative correlational research design to determine the strength and direction of relationships among the variables without manipulating them. Specifically, it quantified Physical Education teachers' nutritional status (using BMI and dietary habits) and health status (energy level and absenteeism), and examined how these relate to classroom performance ratings. By collecting standardized numerical data through questionnaires, BMI computation, and existing performance records, and analyzing them using descriptive statistics and Pearson product-moment correlation at the 0.05 level of significance, the design allowed the researcher to describe current conditions and test whether variations in nutrition and health are significantly associated with variations in teaching performance in the natural school setting.

2.2 Participants

The study included the entire group of Physical Education (PE) teachers assigned to Mapandan National High School during the research. A total population sampling technique was used, meaning all available PE teachers in the school ($N = 25$) were included rather than selecting a subset, to ensure full representation of the target group within the locale. These participants served as the primary sources of data on nutritional status (BMI and dietary habits) and health status (energy level and absenteeism). In contrast, their classroom performance levels were obtained from their official school-based performance ratings and related indicators, enabling the study to examine relationships among variables within the school's actual teaching population.

2.3 Instrumentation

The study utilized three main instruments consistent with its quantitative correlational design: a nutritional status instrument, a health status instrument, and a classroom performance measure. Nutritional status was determined through (1) Body Mass Index (BMI) computation based on the teachers' measured height and weight using the standard BMI formula and classification, and (2) a structured dietary habits questionnaire rated on a Likert scale to describe eating patterns. Health status was assessed using a researcher-administered Likert-type survey focusing on two indicators: self-reported energy level/endurance, and the frequency of absenteeism due to health reasons. Classroom performance was obtained from the teachers' official school performance ratings and related evaluation indicators (e.g., lesson preparation, instructional delivery, and classroom management). Together, these instruments generated numerical data that enabled descriptive analysis of PE teachers' nutrition, health, and performance levels and supported Pearson correlation testing of their relationships.

2.4 Data Analysis

The study used a quantitative correlational approach, first summarizing each variable descriptively and then testing relationships inferentially. Teachers' BMI categories were analyzed using frequency counts and percentages to describe the distribution of nutritional status. In contrast, dietary habits, health status (energy level and absenteeism), and classroom performance were analyzed using weighted means and corresponding descriptive labels based on the Likert scale. After establishing the levels of each variable, Pearson product-moment correlation (r) was applied to determine the strength and direction of the relationships between nutritional status and classroom performance and between health status and classroom

performance, with significance tested at the 0.05 alpha level. This combination of descriptive and correlational statistics provided both a clear profile of participants' nutrition, health, and performance and an evidence-based basis for concluding whether these factors were significantly associated.

3 Results

The results showed that the Physical Education teachers generally demonstrated a favorable nutritional status. Based on Body Mass Index (BMI) classifications, the largest proportion of respondents fell within the normal range, while smaller groups were categorized as underweight, overweight, or obese. This overall pattern indicates that most teachers maintain body weight appropriate for their height, consistent with the physical demands of their role. However, the presence of teachers outside the normal range suggests that nutrition-related risks remain within the group and should not be overlooked, especially given that PE teachers' work requires sustained physical activity and stamina.

Regarding dietary habits, the teachers received a descriptive rating of "High," indicating generally positive eating practices. The responses indicated that most teachers frequently consumed balanced meals and were mindful of food choices that support energy and health. Taken together with the BMI findings, these results imply that the respondents exhibit nutrition behaviors that are largely supportive of good physical functioning, though targeted support may still be needed for those with less optimal nutritional profiles.

Health status findings also revealed an overall "High" level. Teachers reported strong energy levels and endurance suitable for PE instruction, and absenteeism due to health-related reasons was low. This suggests that most respondents are physically capable of fulfilling daily teaching demands and are not frequently hindered by illness. High energy and low absenteeism are important indicators of functional health, particularly for PE educators who must actively demonstrate skills and supervise dynamic activities.

Classroom performance results likewise indicated a "High" level of effectiveness among PE teachers, with an overall mean around 4.37. Teachers scored strongly in key areas such as lesson preparation, instructional delivery, and classroom management. This reflects consistent competence in organizing PE lessons, facilitating student engagement in physical activities, and maintaining a productive learning environment, aligning with expected professional standards for public school teachers.

Finally, correlation analysis established statistically significant positive relationships between the independent variables and classroom performance. Nutritional status showed a moderate but significant correlation with performance ($r = 0.52$, $p = 0.03$), implying that better nutrition is associated with improved classroom effectiveness. Health status demonstrated a stronger, significant correlation with performance ($r = 0.68$, $p < 0.01$), indicating that teachers with higher energy levels and fewer absences tend to perform more effectively. These results highlight that while both nutrition and health matter, overall health condition—especially energy and attendance—appears to be the more powerful predictor of PE teachers' classroom performance, supporting the need for a wellness program focused on sustaining both healthy eating and robust physical well-being.

4. Discussion

The present study's finding that PE teachers generally manifested normal BMI and high dietary-habit ratings corroborates evidence that many teachers maintain acceptable nutritional profiles, especially when they possess stronger nutrition knowledge and healthier behaviors. For instance, Al-Mohaimeed et al. (2024) reported that teachers with better nutrition knowledge tended to have healthier BMI patterns and were more productive at work, supporting the idea that nutrition-related competence and habits are linked to optimal body status and work functioning.

Similarly, a large cross-sectional study among primary school teachers found meaningful associations between health behaviors (including diet and physical activity) and BMI, emphasizing that lifestyle practices help explain teachers' nutritional condition (Alwabli et al., 2024). These aligned results suggest that the predominantly normal BMI and healthy dietary habits observed in Mapandan National High School are consistent with broader patterns in teacher populations, while also highlighting that a subset of overweight/obese teachers remains a common concern.

The study's results on health status—high energy levels and low absenteeism—also parallel prior research that frames teachers' physical well-being as a determinant of work capacity. A systematic review on teacher burnout and physical health concludes that teaching is associated with multiple physical health risks, and that better well-being is linked with stronger functional outcomes (Edwards et al., 2023). Relatedly, evidence from secondary public school teachers indicates that healthier physical activity patterns mitigate stress and are associated with better perceived health and functional capacity (Aparicio-Ugarriza et al., 2024). Taken together, these studies support the interpretation that PE teachers who sustain robust energy and physical health are more able to meet instructional demands, consistent with the high health-status ratings found in this research.

A key corroborating point is the significant positive link between nutrition and classroom performance. The moderate correlation in the present study mirrors findings that teachers' diet quality is meaningfully associated with their classroom practices and professional behaviors. For example, Dalton et al. (2020) found that teachers with higher-quality diets were more likely to model healthier behaviors and engage in supportive nutrition-related classroom practices, suggesting that better personal nutrition is associated with stronger professional performance. At the systems level, CDC guidance on school nutrition and physical-activity environments similarly notes that healthier staff behaviors and knowledge are tied to improved school functioning and role modeling, reinforcing the plausibility of nutrition as a contributor to teaching effectiveness (CDC, 2023).

The stronger relationship observed between health status and classroom performance is also strongly supported in the literature. Teacher absenteeism research consistently shows that health-related absences disrupt instruction and are often rooted in well-being strain; chronically absent teachers are more likely to report mental- or health-related reasons for missed work (Biasi et al., 2024). Policy and research syntheses further emphasize that teacher absences reduce instructional continuity and undermine student learning, underscoring attendance as a practical indicator of teacher effectiveness (Miller, 2019). These studies align with the present finding that energy and consistent attendance are powerful predictors of PE teachers' classroom performance.

Finally, the proposed wellness program emerging from this study aligns with prior evidence that teacher-focused wellness and physical activity initiatives can improve work-related outcomes. A sports-based physical-activity program for teachers highlighted that improving teacher wellness is directly connected to teaching performance and school stability (Kim & Lee, 2020). Likewise, studies on school wellness initiatives report that strengthening nutrition, physical activity, and stress management among teachers supports both personal health and their capacity to implement wellness practices in class (Elliott et al., 2022). Thus, the present study's recommendation for a structured wellness program is consistent with established research advocating integrated nutrition-and-health interventions to sustain teacher performance.

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