

School-based health related programs and academic performance of intermediate level learners: Evidence-based health-related plan

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ABSTRACT

School-based health-related intervention programs have been identified as effective strategies to enhance students' physical and mental well-being, which in turn supports better cognitive functioning and learning outcomes. This research aimed to assess the school-based health-related programs and academic performance of intermediate-level learners of Talamban Elementary School, Talamban, Cebu City for the school year 2025-2026 as a basis for an evidence-based health-related plan. A descriptive-correlational research design was employed, using an adapted questionnaire as the primary data collection tool. The study involved 50 teacher respondents and 50 learner respondents from Talamban Elementary School, Talamban, Cebu City. The study involved the correlational method. The following statistical treatments were used: simple percentage, weighted mean, and chi-square test. The data gathered were then analyzed statistically. Findings indicated that the overall mean of the perceptions on the implementation of school-based health-related programs in terms of deworming strongly agree; school-based feeding is strongly agree; gulayan sa paaralan is agree; and hygiene and sanitation is agree. In addition, data showed that 15 or 30.00 percent are outstanding, 13 or 26.00 percent are satisfactory, 11 or 22.00 percent are very satisfactory, 11 or 22.00 percent are fairly satisfactory, and none of them get did not meet expectations. Furthermore, data showed that the computed t-values for deworming (-1.889), school-based feeding (-1.607), gulayan (-1.312), and hygiene and sanitation (-1.865) are all lower than the critical t-value of 2.021 at the 0.05 level of significance. Lastly, the overall mean of the best practices in the implementation of school-based health-related programs is strongly agree. Based on the findings, the researcher still recommends the development and implementation of an evidence-based health-related plan.

Keywords: Administration and supervision, school-based health-related programs, academic performance, descriptive correlational, evidence-based health-related plan, Talamban, Cebu.

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INTRODUCTION

The academic performance of learners is shaped by a range of interconnected factors, with health and nutrition occupying a particularly important role in supporting cognitive functioning, school participation, and learning outcomes. School based health related intervention programs have consequently emerged as important strategies for addressing the physical, mental, emotional, and nutritional needs of learners within the educational environment. These interventions commonly include feeding initiatives, health education, sanitation and hygiene programs, physical activity, mental health services, and psychosocial support. Evidence indicates that these initiatives can reduce absenteeism, improve nutritional status, enhance cognitive functioning, and contribute to better academic performance (Smith & Garcia, 2023). Healthy learners are more likely to attend school regularly, participate actively in classroom activities, sustain attention, and achieve favorable educational outcomes, demonstrating that health promotion and academic development are closely connected rather than separate educational concerns (Garcia & Martinez, 2023; Rodriguez et al., 2023).

The growing prevalence of health concerns among school aged children, including malnutrition, mental health challenges, and illnesses associated with lifestyle, further strengthens the need to integrate health interventions into the school system. The Department of Education has implemented various school based health programs as part of its commitment to holistic education, recognizing that academic achievement depends partly on the health and wellbeing of learners (Department of Education, 2023). Research supports this position by showing that well-nourished students tend to demonstrate greater attentiveness, better memory retention, and stronger academic engagement than their undernourished peers (Johnson & Lee, 2023). Mental health interventions delivered within schools similarly contribute to reduced anxiety and improved concentration, thereby creating conditions that are more conducive to effective learning (Torres et al., 2023). Collectively, these findings demonstrate that improvements in physical and psychological health can strengthen school attendance, classroom engagement, cognitive development, and academic achievement.

The importance of integrating health promotion into education is further supported by the broader concept of health promoting schools. The World Health Organization (WHO, 2023) characterizes health promoting schools as institutions that continually strengthen their capacity to support healthy living and learning. Schools occupy a strategic position in providing health services, strengthening health literacy, and developing behaviors that can contribute to lifelong wellness. Basch (2023) explains that health conditions such as malnutrition, dental problems, poor vision, asthma, insufficient sleep, mental health difficulties, and inadequate physical activity can negatively affect academic outcomes and contribute to disparities in achievement. Addressing these conditions through systematic school interventions can therefore improve learners' readiness and capacity to learn. Langford et al. (2023), through a meta-analysis of comprehensive school health programs involving nutrition, physical activity, hygiene, and mental health interventions, similarly identified improvements in health behaviors and academic indicators. These findings reinforce the position that educational achievement is strengthened when schools address the conditions that enable learners to participate meaningfully in the learning process.

The relationship between health and educational outcomes is also evident in interventions addressing psychological wellbeing. Murray and Low (2023) found that school mental health programs involving teacher training and student counseling contributed to measurable reductions in anxiety, depression, and absenteeism, with corresponding improvements in classroom behavior and learning outcomes. In the Philippine context, Lopez and Estrada (2023) reported that school based nutrition programs, particularly feeding interventions for undernourished learners in public elementary schools, contributed to

improvements in academic scores and attendance. Such findings are particularly relevant in communities where socioeconomic conditions may limit learners' access to adequate nutrition and health services outside the school environment. The World Health Organization (2023) likewise emphasizes that educational institutions provide effective platforms for health service delivery, suggesting that school based interventions can simultaneously address health disparities and strengthen educational outcomes.

The relationship between school participation, learner engagement, and academic achievement is theoretically supported by Academic Mediation Theory (Danovska, 2018). The theory explains the relationship between academic success and the likelihood that learners will remain within an educational institution. Poor academic performance, commonly reflected through standardized test results or grade point averages, has been identified as a significant predictor of school dropout. Central to this explanation is the concept of school bonding, through which learners who are motivated, engaged, and connected to their education are more likely to achieve academically and remain in school. Conversely, learners experiencing persistent academic difficulties may develop weaker connections with the school and face a greater likelihood of discontinuing their education (Battin Pearson, 2000). Within the context of school health interventions, this perspective suggests that programs capable of improving attendance, concentration, engagement, and academic functioning may indirectly strengthen learners' attachment to school and reduce educational disengagement.

The connection between health conditions and academic functioning is further explained through Maslow's Hierarchy of Needs (Maslow, 1943). Maslow conceptualized human needs hierarchically, beginning with physiological requirements and progressing through safety, love and belonging, esteem, cognitive, aesthetic, self-actualization, and transcendence needs. The fundamental levels include what Maslow described as deficiency needs, or D needs. When these needs are satisfied, individuals may not consciously recognize them, but when they remain unmet, they become significant sources of concern and motivation (Snowman & Biehler, 2011). Beyond deficiency needs are growth needs, being needs, or B needs, which continue to motivate development even after they are fulfilled. This framework is especially relevant to school based health programs because learners cannot be expected to focus effectively on higher cognitive and academic demands when fundamental physiological needs remain inadequately addressed.

Food and nutrition provide a particularly important illustration of this relationship. Maslow maintained that the desire for achievement cannot effectively direct an individual's thoughts and actions when lower level needs remain unmet. Persistent hunger may dominate attention to such an extent that other concerns become comparatively insignificant (Woodhouse & Lamport, 2012). Consequently, learners whose fundamental nutritional and physiological needs are unmet may experience difficulty accessing the cognitive processes required for complex learning and high academic achievement (Woodhouse & Lamport, 2012). Maslow's perspective also emphasizes the importance of supportive relationships between teachers and learners. Even when instructional materials and classroom organization are adequate, learners may struggle to develop meaningful engagement when their needs for empathy, acceptance, security, and belonging are insufficiently addressed. School health initiatives therefore have significance beyond physical wellness because they can contribute to environments in which learners feel supported and capable of participating fully in education.

Psychological Theories presented by Lepheana et al. (2011) further reinforce this relationship between fundamental needs, motivation, behavior, and educational participation. Their analysis distinguishes psychological needs from physiological needs while recognizing the importance of both in shaping human functioning. Psychological needs include affection,

belonging, and achievement, while physiological needs include food, water, sleep, rest, and physical activity (Lekhanya, 2008). Within educational settings, hunger can interfere with learners' ability to manage academic responsibilities and may, in severe circumstances, contribute to disengagement and eventual school dropout. At the same time, children require love, social acceptance, and opportunities to achieve meaningful goals. Classroom practices characterized by excessively authoritative leadership and limited learner participation may weaken feelings of acceptance and belonging, potentially reducing learners' motivation to attend school. These psychological perspectives therefore complement Maslow's theory by demonstrating that effective school health interventions must address both physical and psychosocial dimensions of learner wellbeing.

The Health Belief Model developed by Hochbaum et al. (1950) provides another perspective for understanding the effectiveness of school based health related intervention programs. The model explains health behavior through individuals' perceptions of susceptibility to health risks, the severity of those risks, the expected benefits of preventive action, and perceived barriers to participation. Applied to school settings, the model suggests that learners who do not perceive themselves as susceptible to conditions such as obesity or mental health difficulties may be less inclined to participate in preventive health behaviors. Similarly, parents, teachers, and other school personnel may demonstrate limited participation when they perceive barriers involving time, resources, accessibility, or trust. Health interventions can therefore become more effective when they strengthen awareness of susceptibility and severity, clearly communicate the benefits of healthy behaviors, reduce practical barriers, and provide appropriate cues to action through reminders, information campaigns, and related activities. The Health Belief Model consequently provides a useful framework for both designing and evaluating school health programs intended to produce sustained behavioral change.

Social Cognitive Theory developed by Bandura (1986) further explains how personal factors, behavior, and environmental conditions interact through reciprocal determinism. Central to this theory are observational learning and self efficacy. Learners acquire behaviors partly by observing significant individuals within their environment, while their confidence in performing a behavior influences whether that behavior is adopted and maintained. Within school health programs, healthy eating, physical activity, hygiene, and other positive behaviors may become more meaningful when learners observe teachers, peers, and school personnel modeling these practices. Programs that provide skill development, achievable goals, supportive feedback, and opportunities for successful participation can likewise strengthen learners' confidence in making healthy choices. Social Cognitive Theory therefore extends the preceding theoretical perspectives by demonstrating that school health programs must not only communicate knowledge but also establish supportive environments that enable learners to observe, practice, and sustain positive behaviors. Such behavioral changes can ultimately contribute to improved health and academic performance.

These theoretical foundations are reinforced by national policies and legal mandates recognizing health as a fundamental component of child development and education. Article II, Section 15 of the 1987 Philippine Constitution declares that the State shall protect and promote the people's right to health and instill health consciousness among them. This constitutional provision establishes a legal and ethical foundation for implementing health initiatives within educational institutions. Schools, working with government agencies and other stakeholders, therefore occupy an important position in promoting health awareness, preventing disease, and facilitating access to essential health services. The constitutional mandate also supports the integration of health education, nutrition services, mental health counseling, immunization, sanitation, and hygiene promotion into educational settings,

recognizing schools as important environments for cultivating health consciousness and lifelong healthy practices.

The government's commitment to addressing nutrition among learners is further institutionalized through the Masustansyang Pagkain para sa Batang Pilipino Act, or Republic Act No. 11037 (2018). The law was enacted to address hunger and malnutrition among Filipino children through the provision of nutritious meals, particularly for learners in public educational institutions. Recognizing adequate nutrition as essential to physical growth, cognitive development, and academic performance, Republic Act No. 11037 establishes a sustainable feeding program targeting children who experience undernutrition and related barriers to learning. The program provides nutritious and balanced meals or snacks and assigns the Department of Education, in collaboration with the Department of Health and the Department of Social Welfare and Development, responsibility for implementing and monitoring feeding initiatives. It also encourages the use of locally sourced ingredients, thereby linking learner nutrition with community food security and support for local producers. Beyond responding to immediate hunger, the law seeks to cultivate healthy eating practices among children and their families, ultimately contributing to improved academic performance, reduced dropout rates, and holistic child development.

The School Based Feeding Program represents a major mechanism through which Republic Act No. 11037 is implemented. Its significance is further reflected in the regional memorandum concerning School Based Health Programs for School Year 2023 to 2024 (RM 0331, 2023), which emphasizes the need to address undernutrition among children across basic education and to improve and sustain learner health through feeding initiatives. While the School Based Feeding Program guidelines were undergoing review by the EXECOM, Planning Service, and Legal Service, implementation instructions directed schools to begin program activities in August 2023 for School Year 2023 to 2024 (RM 0331, 2023). The program targeted 1,678,704 undernourished learners from Kindergarten to Grade 6 and provided 120 feeding days together with 43 days of milk distribution (RM 0331, 2023). These provisions demonstrate the scale of government investment in addressing nutritional deficiencies as barriers to effective learning.

Educational outcomes associated with health interventions must also be considered within the broader system of classroom assessment. DepEd Order No. 8, series of 2015, or the Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program, establishes the framework for evaluating learner progress and achievement. Issued on April 1, 2015, the policy aligns assessment practices with the K to 12 curriculum and emphasizes learner centered and competency based assessment designed to support the development of skills required in contemporary education. Classroom assessment is conceptualized as an ongoing process involving teachers and learners and using diverse assessment methods appropriate to varying learning needs and contexts. The policy recognizes the importance of evaluating knowledge together with skills, attitudes, and values. Beginning School Year 2015 to 2016, the guidelines became mandatory in public elementary and secondary schools nationwide, while institutions outside DepEd were encouraged to adopt and appropriately modify them according to their philosophy, vision, and mission with approval from the relevant DepEd Regional Office. Within the present study, this assessment framework provides an important basis for examining academic performance alongside learners' participation in school health interventions.

Although the theoretical, empirical, and policy literature demonstrates the potential benefits of school based health programs, effective implementation remains challenging. Teachers may experience increased workloads when they are expected to assume

responsibilities related to mental health support, health education, feeding programs, or program coordination in addition to their instructional duties. Such expanding expectations can contribute to professional exhaustion when teachers receive insufficient training or institutional support. School based mental health initiatives, for example, may place additional demands on personnel who are already managing substantial educational responsibilities, potentially affecting both program delivery and teacher wellbeing (MacGregor et al., 2024; Wikipedia, 2024). Teachers may also feel inadequately prepared to deliver health related content because of limited professional training and low confidence. Professional development opportunities may themselves be constrained by insufficient resources, limited feedback mechanisms, and inadequate continuing assistance. Effective teacher preparation for health interventions therefore requires interactive and data driven training supported by sustained technical assistance (Dinnen et al., 2024).

Material and environmental limitations likewise influence the implementation of school health programs. Insufficient space, equipment, and financial resources may restrict schools' ability to conduct health education, physical activity assessments, feeding activities, and other interventions effectively. Programs requiring specialized venues, materials, or equipment may be particularly difficult to implement in schools where resources are limited. Shared facilities, unsuitable spaces, and weather related disruptions may create additional implementation challenges (Journal of Family Medicine and Primary Care, 2024). These constraints demonstrate that the presence of a health program does not automatically guarantee its effectiveness. Program outcomes depend on the quality of implementation, the capacity of teachers and school personnel, available infrastructure and resources, administrative support, and collaboration among relevant stakeholders.

The need for collaboration is consistently emphasized in the literature. Although school based health programs have demonstrated positive effects on student wellness and academic performance, their sustainability requires adequate funding, trained personnel, supportive leadership, and active stakeholder participation (Lopez & Estrada, 2023). The evidence presented by Basch (2023), Langford et al. (2023), Murray and Low (2023), and the World Health Organization (2023) converges on the principle that physical health, nutrition, psychological wellbeing, attendance, engagement, and academic performance are interrelated dimensions of learner development. At the same time, the literature reveals that implementation barriers can limit the extent to which theoretically effective programs achieve their intended outcomes. This distinction between the demonstrated value of health interventions and the practical realities of implementation highlights the importance of examining not only whether such programs exist but also how they are implemented and experienced within specific school contexts.

The Department of Education's continued implementation and enhancement of school based health programs reflects institutional recognition of the relationship between learner health and educational success (Department of Education, 2023). However, despite increasing recognition of the benefits of school based health related interventions and the best practices adopted by teachers in their implementation, localized evidence remains limited regarding how these programs are supplemented, implemented, and experienced by teachers and learners in elementary school settings, particularly in relation to the academic performance of intermediate level learners. The existing literature establishes broad associations among nutrition, physical health, psychological wellbeing, attendance, cognitive functioning, and academic achievement, but further contextual investigation is necessary to determine how these relationships operate within individual schools and learner populations.

This gap is particularly relevant to Talamban Elementary School, Talamban, Cebu City, during School Year 2025 to 2026. Examining school based health related programs within this specific educational context can provide evidence concerning their relationship with the

academic performance of intermediate level learners while also identifying implementation practices, experiences, and challenges that may influence program effectiveness. Grounded in Academic Mediation Theory (Danovska, 2018), the Hierarchy of Needs (Maslow, 1943), Psychological Theories (Lepheana et al., 2011), the Health Belief Model (Hochbaum et al., 1950), and Social Cognitive Theory (Bandura, 1986), and supported by Republic Act No. 11037 (2018), RM 0331 (2023), DepEd Order No. 8 (2015), and Article II, Section 15 of the 1987 Philippine Constitution, the study recognizes learner health as both a condition for effective participation in education and an essential outcome of holistic schooling. Accordingly, the study seeks to unravel the impact of school based health related intervention programs on the academic performance of intermediate level learners and to generate evidence that can guide educators, policymakers, and other stakeholders in optimizing program implementation and sustainability. Through this inquiry, the study intends to contribute to the development of an evidence based health related plan capable of strengthening both the health and educational outcomes of learners at Talamban Elementary School, Talamban, Cebu City, during School Year 2025 to 2026.

Statement of the problem

This study assessed the school based health related programs and academic performance of intermediate level learners of Talamban Elementary School, Talamban, Cebu City, for the school year 2025 to 2026 as a basis for an evidence based health related plan.

Specifically, it sought to answer the following questions:

1. What is the profile of the teacher respondents in terms of age, sex at birth, highest educational attainment, length of service, and related seminars and training attended, and the profile of the learner respondents in terms of combined monthly family income, number of siblings in the family, and nutritional status?
2. What are the learner respondents' perceptions on the implementation of school based health related programs in terms of deworming, school based feeding, Gulayan sa Paaralan, and hygiene and sanitation?
3. What is the general average of the intermediate level learners' academic performance in the first quarter after implementing school based health related programs?
4. Is there a significant relationship between learner respondents' perceptions on the implementation of school based health related programs and their academic performance general average?
5. What are the teacher respondents' best practices in the implementation of school based health related programs?
6. Based on the study's findings, what evidence based health related plan can be crafted?

METHODOLOGY

This study employed a descriptive correlation research design, utilizing an adapted questionnaire administered to the respondents in order to assess the school based health related programs and academic performance of intermediate level learners. The design was particularly directed toward examining the profile of the respondent groups, their perceptions on the implementation of school based health related programs, the general average of the intermediate level learners' academic performance in the first quarter after the implementation of school based health related programs, and the best practices of teachers in implementing such programs. The study further employed the purposive sampling method, which was

preferred by the researcher because it required only a short period to accomplish, given that the respondents were readily available in the locale of the study. This method was chosen for its accessibility and for the punctuality it allowed in fulfilling the possible requirements to be obtained by the researcher.

The research followed a systems model approach involving input, process, and output components in order to illustrate the overall flow of the study. The input component consisted of the profile of the learner respondents, namely their combined monthly family income, number of siblings in the family, and nutritional status, as well as the profile of the teacher respondents, namely their age, sex, highest educational attainment, length of service, and relevant training and seminars attended. The input also included the respondents' perceptions on the implementation of school based health related programs, specifically deworming, school based feeding, gulayan sa paaralan, and hygiene and sanitation, along with the general average of the intermediate level learners' academic performance in the first quarter following the implementation of these programs, and the best practices of teachers in implementing them. The process component involved the method used for gathering and synthesizing the variables, encompassing the method itself, the gathering of data, the organization of data, and the analysis of the results derived from the questionnaires. The data gathered were tabulated, analyzed, computed, and evaluated in order to determine the results of the study. The output component provided the researcher with empirical data that served as the basis for creating an evidence based health related plan, which offered actions intended to help instructors improve their strategies, techniques, and approaches in implementing school based health related activities. This output encompassed the areas of concern, objectives, strategies, persons involved, budget, source of budget, time frame, expected outcome, and actual accomplishment.

The research was conducted at Talamban Elementary School, located in Talamban, Cebu City. Talamban Elementary School is an accredited Child Friendly and Achiever school in Cebu City that has implemented several impactful school based health interventions aimed at enhancing the physical, mental, and emotional wellbeing of its intermediate level learners. The school has long recognized that good health is essential for effective learning, and guided by this belief, it has actively implemented various health related intervention programs aimed at promoting the overall wellbeing of its learners, particularly those at the intermediate level. One of the school's notable initiatives is the annual Dental Health Awareness Program, conducted every May in celebration of National Dental Health Month, during which volunteer dentists and local education personnel support the distribution of toothbrushes, toothpaste, and germicidal soaps to students, along with demonstrations on proper brushing techniques and hygiene practices that empower learners with practical skills for daily self care. To ensure that learners remain physically active and engaged, the school also benefits from the Don Bernardo Benedicto Community Center, a covered gymnasium donated in 2019, which provides a safe and weather protected environment for physical education classes, sports activities, and wellness events. Regular use of this facility has significantly contributed to the students' physical development and discipline while also serving as a venue for school wide health and safety drills. In line with national and local mandates, the school also conducts disaster preparedness drills, such as earthquake simulations, ensuring that students are equipped to respond calmly and effectively during emergencies. These interventions address not only the physical health of the students but also foster a safe, clean, and supportive school environment, and through partnerships with local health professionals, barangay officials, and the active involvement of teachers and parents, Talamban Elementary School continues to champion holistic learner development in which education and health go hand in hand.

The respondents of this study were the grade six learners of the aforementioned school, together with the teachers assigned to them. The total number of respondents consisted of 50 learners and 50 teachers, computed through percentage, with the learner respondents

comprising 50.00% and the teacher respondents comprising 50.00% of the total respondent population of 100, which represented 100.00% of the sample.

The study employed an adopted survey questionnaire drawn from the studies of Gallego and Abdullah (2021), Vijayalakshmi, et al. (2023), and Attiga and Gbefe (2022). The teacher respondents' questionnaire was composed of two parts, the first of which addressed the profile of the respondents, particularly their age, sex, highest educational attainment, length of service, and relevant training and seminars attended, while the second part, adopted from the aforementioned studies, addressed the best practices of teachers in the implementation of school based health related programs. The learner respondents' questionnaire, meanwhile, was composed of three parts. The first part addressed the profile of the respondents, specifically their combined monthly family income, number of siblings in the family, and nutritional status. The second part addressed their perceptions on the implementation of school based health related programs, namely deworming, school based feeding, *gulayan sa paaralan*, and hygiene and sanitation. The third and final part addressed the general average of the intermediate level learners' academic performance in the first quarter after the implementation of school based health related programs, and this part, like the others, was likewise adopted from the studies of Gallego and Abdullah (2021), Vijayalakshmi, et al. (2023), and Attiga and Gbefe (2022).

Prior to the administration of the research instrument, the researcher sought permission from the public schools' district supervisor and the school principal of the selected school, with the recommending approval of the research adviser and the Dean of the College of Advanced Studies of Cebu Technological University. Once permission was granted, the preliminary data gathering was carried out through the administration of the research questionnaire to the pre identified respondents on hand, and the researcher provided guidance to the respondents in filling up the questionnaires as needed.

The study employed the correlational method in its statistical treatment, wherein simple percentage was used to determine the percentage of the respondents' group profiles and academic performance, weighted mean was used to determine the distribution results of the perceptions on the implementation of school based health related programs and the best practices of teachers in implementing such programs, and the chi square test was used to determine the significant relationship between the learner respondents' perceptions on the implementation of school based health related programs and their academic performance general average. Specifically, percentage (p) was used in determining the relevant information pertaining to the learner respondents' combined monthly family income, number of siblings in the family, and nutritional status, as well as the teacher respondents' profiles, particularly their age, sex, highest educational attainment, length of service, and relevant training and seminars attended, and it was likewise used to identify the learners' academic performance, particularly their first quarter grades. Weighted mean was used to assess the respondents' perceptions of the implementation of school based health related programs and the best practices of teachers in implementing them, while the chi square test was used to determine the significant relationship between the learner respondents' perceptions on the implementation of school based health related programs and their academic performance general average.

With regard to the scoring procedure, the researcher required individual participants to respond to items concerning the learners' perceptions of the implementation of school based health related activities by indicating whether they Strongly Agree, Agree, are Undecided, Disagree, or Strongly Disagree. A rating of 5, corresponding to a scale range of 4.20-5.00, denoted a response of Strongly Agree (SA), described as the respondent fully agreeing with the statement. A rating of 4, corresponding to a scale range of 3.40-4.19, denoted a response of Agree (A), described as the respondent agreeing with the statement. A rating of 3,

corresponding to a scale range of 2.60-3.39, denoted a response of Undecided (U), described as the respondent being not certain of the statement. A rating of 2, corresponding to a scale range of 1.80-2.59, denoted a response of Disagree (D), described as the respondent disagreeing with the statement. A rating of 1, corresponding to a scale range of 1.00-1.79, denoted a response of Strongly Agree (SD), described as the respondent strongly disagreeing with the statement.

The study further adopted DO 8, 2015, "Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program," in interpreting the learners' academic achievement according to the following grading scale. A grading scale of 90-100 corresponded to the descriptor Outstanding (O), with a remark of Passed. A grading scale of 85-89 corresponded to the descriptor Very Satisfactory (VS), with a remark of Passed. A grading scale of 80-84 corresponded to the descriptor Satisfactory (S), with a remark of Passed. A grading scale of 75-79 corresponded to the descriptor Fairly Satisfactory (FS), with a remark of Passed. A grading scale below 75 corresponded to the descriptor Did Not Meet Expectations, with a remark of Passed.

In addition, the researcher required individual participants among the teacher respondents to respond to items concerning their best practices in the implementation of school based health related programs by indicating whether they Strongly Agree, Agree, are Undecided, Disagree, or Strongly Disagree. A weight of 5, corresponding to a range of 4.20-5.00, denoted the category Strongly Agree (SA), with the verbal description that the respondent certainly encountered the situation. A weight of 4, corresponding to a range of 3.40-4.19, denoted the category Agree (A), with the verbal description that the respondent partially encountered the situation. A weight of 3, corresponding to a range of 2.60-3.39, denoted the category Undecided (U), with the verbal description that the respondent is not sure whether he or she encountered the situation. A weight of 2, corresponding to a range of 1.80-2.59, denoted the category Disagree (DA), with the verbal description that the respondent rarely encountered the situation. A weight of 1, corresponding to a range of 1.00-1.79, denoted the category Strongly Disagree (SD), with the verbal description that the respondent did not encounter the situation.

RESULTS AND DISCUSSION

This chapter presents the results and discussion of the study involving 50 respondents, comprising teacher and learner participants, examined in relation to the profile of the respondents, learner perceptions on the implementation of school based health related programs, academic performance of intermediate level learners, the relationship between these perceptions and academic performance, and the best practices employed by teachers in implementing these programs. The discussion is grounded in the data gathered through a descriptive correlational research design, utilizing a structured survey questionnaire as the primary data collection instrument, with responses analyzed through frequency counts, percentages, means, standard deviations, and Pearson correlation with corresponding t test computations to determine significant relationships. The results presented herein are interpreted directly in relation to the objectives of the study, particularly in identifying respondent characteristics, gauging perceptions of program implementation, assessing academic outcomes, testing statistical relationships, and documenting best practices in program delivery.

In terms of the profile of the teacher respondents, the age distribution revealed that 18 or 36.00 percent of the teachers were 31 to 40 years old, 14 or 28.00 percent were 21 to 30 years old, 13 or 26.00 percent were 41 to 50 years old, and five or 10.00 percent were 51 to 60 years old, yielding a standard deviation of 9.62 among the 50 total respondents. This age

distribution suggests that younger teachers may contribute fresh perspectives, technological fluency, and enthusiasm that enhance the creativity and relatability of health initiatives, particularly in addressing contemporary concerns such as mental health and digital wellness, while older and more experienced teachers often bring valuable classroom management skills and established relationships within the school community that support program consistency and credibility. Stolk et al. (2025) emphasized that although age alone is not a primary determinant of program success, it correlates with other variables such as stress levels and classroom management that can either enhance or hinder effective implementation, while Bechter et al. (2023) found that educator wellbeing, often higher among older teachers, has been positively associated with improved delivery of nutrition and mental health initiatives. This implies that a diverse teaching staff in terms of age may create a more balanced and effective approach to delivering health related programs that respond to the evolving needs of learners.

With respect to sex at birth, 44 or 88.00 percent of the teacher respondents were female while six or 12.00 percent were male, with a standard deviation of 0.32. This predominance of female teachers implies a potentially strong influence on the effective implementation of school based health related programs, given the often nurturing, empathetic, and communicative approach associated with female educators, qualities considered especially important in addressing sensitive health topics such as mental health, hygiene, nutrition, and emotional wellbeing. Psarouli et al. (2022) found that in Greece, female teachers, particularly those with more years of service and teaching in urban areas, demonstrated higher levels of engagement in School Health Education Programs, indicating that gender interacts with professional experience to influence implementation efficacy.

Regarding highest educational attainment, 41 or 82.00 percent of the teacher respondents had units in a master's degree, five or 10.00 percent were undergraduate degree holders, four or 8.00 percent held a master's degree, and none held units in doctorate or a doctorate degree, resulting in a standard deviation of 0.42. This distribution implies that teachers with deeper academic training are more equipped to design and deliver evidence based, innovative, and contextually relevant health programs aligned with both educational standards and student developmental needs, and that such teachers often take on leadership roles in advocating for stronger health policies within the school. Robinson et al. (2020) noted that teachers with advanced qualifications tend to exhibit stronger instructional planning, program monitoring, and critical evaluation skills, which are key competencies for sustaining health initiatives in school settings.

In terms of length of service, 17 or 34.00 percent of the teacher respondents had rendered 11 to 20 years of service, 15 or 30.00 percent had rendered 6 to 10 years, 14 or 28.00 percent had rendered 1 to 5 years, and four or 8.00 percent had rendered 21 years and beyond, with a standard deviation of 5.27. This finding implies that teachers with longer years of service bring stability and insight that enhance the implementation of school based health related programs, as their deep understanding of student behavior and school culture allows them to anticipate challenges and tailor programs to specific learner needs. Miller and Thompson (2021) reported that veteran educators exhibit higher confidence and efficacy in delivering complex health curricula, which contributes to improved program fidelity and student outcomes.

As for related seminars and training attended, 46 or 92.00 percent of the teacher respondents had attended seminars and training 1 to 3 times, four or 8.00 percent had attended 4 to 6 times, and none had never attended, with a standard deviation of 0.82. This implies that participation in professional development opportunities equips teachers with up to date

knowledge, innovative strategies, and practical skills necessary for addressing diverse health issues within the school setting. Johnson and Lee (2022) emphasized that teachers who engage in regular health focused training demonstrate higher self efficacy, better classroom management of health activities, and greater adherence to program protocols, which collectively lead to improved student health outcomes.

Turning to the learner respondents' profile, in terms of combined monthly family income, 35 or 70.00 percent reported an income of P15,001 to P20,000, 13 or 26.00 percent reported P10,001 to P15,000, two or 4.00 percent reported P5,001 to P10,000, and none reported P5,000 and below or P20,001 and above, yielding a standard deviation of 2.78. This implies that parents' minimum monthly income plays a crucial role in shaping learners' academic performance and nutritional status, since families with higher or sufficient income levels are generally better able to provide nutritious meals, educational materials, and a stable home environment conducive to learning. Smith and Hernandez (2021) found that households with higher income levels tend to provide better nutrition, which is strongly linked to improved cognitive development and school achievement among children.

With regard to the number of siblings in the family, 30 or 60.00 percent of the learner respondents had four to seven members, 18 or 36.00 percent had zero to three members, and two or 4.00 percent had eight members and above, with a standard deviation of 2.16. This distribution implies that in larger families, financial resources, food, and educational support may be stretched thinner, potentially limiting the nutrition each child receives and affecting cognitive development, while parents with many children may have less time to provide individualized academic support. Martinez and Rivera (2022) found that larger family sizes often correlate with decreased per child investment in nutrition and educational support, which may result in poorer academic outcomes and suboptimal nutritional status among learners.

In terms of nutritional status, 39 or 78.00 percent of the learner respondents were classified as normal while 11 or 22.00 percent were classified as wasted, and none were severely wasted, with a standard deviation of 0.41. This finding implies that well-nourished students tend to have better memory retention, quicker problem solving abilities, and higher energy levels that enable them to engage more actively in learning activities, whereas malnutrition can lead to fatigue, decreased attention span, and increased susceptibility to illness. Anderson and Smith (2022) confirmed that malnutrition, including both undernutrition and micronutrient deficiencies, negatively affects learners' cognitive abilities and academic outcomes.

With respect to learner perceptions on the implementation of school based health related programs, the deworming indicators yielded an overall mean of 4.22, described verbally as strongly agree, with the statement "The learners were properly weighed before deworming" obtaining the highest mean of 4.42 and a standard deviation of 0.64, verbally described as strongly agree. This implies that properly weighing learners before administering deworming medication allows health personnel and teachers to determine the appropriate dosage based on each child's body weight, reducing the risk of underdosing or overdosing, and reflects adherence to health protocols that build trust among parents and the broader community. Taylor Robinson et al. (2024) noted that appropriate dosing, typically calculated based on weight, is essential for administering the correct amount of deworming medication such as albendazole or praziquantel, particularly in mixed age school populations, reinforcing that weighing before deworming is a key procedural refinement contributing to safer and more trusted school based health interventions.

For school based feeding, the overall mean was 4.22, verbally described as strongly agree, with the statement "The learners were no longer consistently drowsy" yielding the highest mean of 4.70 and a standard deviation of 0.70, verbally interpreted as agree. This implies that consistent drowsiness among learners is often linked to inadequate food intake or

poor nutrition, and the noticeable improvement in students' energy levels suggests that the feeding program is successfully meeting basic nutritional needs, enabling learners to remain attentive and engaged. Asefa et al. (2022) found that adolescents participating in feeding initiatives demonstrated notable gains in attendance and academic engagement, suggesting that proper nourishment combats fatigue and supports sustained concentration throughout the school day.

For gulayan sa paaralan, the overall mean was 4.17, verbally interpreted as agree, with statements 5 and 7, "The learners were taught patience and responsibility" and "The learners' perseverance and commitment were also promoted," obtaining the highest mean of 4.34 each and standard deviations of 0.77 and 0.65 respectively, both verbally described as strongly agree. This implies that through active participation in planting, nurturing, and harvesting crops, learners develop patience as they wait for plants to grow and responsibility as they care for the garden regularly. Alcantara and Fronteras (2023) noted that hands on involvement in school gardening fosters a sense of responsibility as students take ownership of their gardens and the produce they yield.

For hygiene and sanitation, the overall mean was 4.12, verbally interpreted as agree, with the statement "The learners were exposed to any cleanliness related activities" obtaining the highest mean of 4.42 and a standard deviation of 0.64, verbally described as strongly agree. This implies that engaging learners in cleanliness related tasks such as handwashing routines, classroom cleaning, waste segregation, and maintaining restroom hygiene helps instill habits that promote both personal and environmental health. Ismail et al. (2024) found that school based Water, Sanitation, and Hygiene interventions that include hands on cleanliness practices not only improve students' hygiene knowledge and behaviors but also reduce infection related absenteeism and enhance overall health literacy.

Taken together, the summary of learner perceptions on the implementation of school based health related programs showed that deworming and school based feeding each obtained a mean of 4.22, both verbally described as strongly agree, while gulayan sa paaralan obtained a mean of 4.17 and hygiene and sanitation obtained a mean of 4.12, both verbally described as agree, across the total of 50 respondents representing 100.00 percent.

With regard to the general average of intermediate level learners' academic performance in the first quarter after implementing school based health related programs, 15 or 30.00 percent of the learners were rated outstanding, 13 or 26.00 percent were rated satisfactory, 11 or 22.00 percent were rated very satisfactory, 11 or 22.00 percent were rated fairly satisfactory, and none did not meet expectations, with a standard deviation of 1.14 across the 50 total respondents. This implies that learners who achieve very satisfactory to outstanding grades can have a positive impact on the implementation of school based health related programs, both as participants and potential role models, as their academic performance often reflects strong engagement, discipline, and willingness to take initiative. Sabri et al. (2024) reported that high achieving students typically exhibit strong attention, motivation, and engagement, traits that support active participation in health initiatives such as nutrition, physical activity, and mental health programming, while Richard et al. (2021) demonstrated that comprehensive health interventions featuring structured physical activity and healthy eating yielded significantly higher academic outcomes compared to control groups, suggesting a synergistic relationship where health programs boost academic performance.

To determine the significant relationship between learner respondents' perceptions on the implementation of school based health related programs and their academic performance general average, Pearson r and corresponding t test computations were employed. The results showed an r value of negative 0.263 and a computed t value of negative 1.889 for deworming

statements, an r value of negative 0.226 and a computed t value of negative 1.607 for school based feeding statements, an r value of negative 0.186 and a computed t value of negative 1.312 for gulayan statements, and an r value of negative 0.260 and a computed t value of negative 1.865 for hygiene and sanitation statements, all tested against a critical t value of 2.021 at 48 degrees of freedom and an alpha level of 0.05. Since all computed t values were lower than the critical t value of 2.021, the null hypothesis was accepted across all four indicators, indicating that there is no significant relationship between learner perceptions on the implementation of these school based health related programs and the academic performance of intermediate grade learners. The negative r values suggest weak inverse relationships, but these are not strong enough to be considered meaningful. This implies that while school programs such as deworming, feeding, gulayan, and hygiene are important for learners' health and welfare, they do not directly influence academic performance in a statistically significant way, and other factors such as study habits, classroom instruction, home environment, and student motivation may have a greater effect on learning outcomes. Santos and De Vera (2022) noted that the finding of no significant relationship between school programs such as feeding schemes, hygiene campaigns, deworming, and gardening projects and the academic performance of intermediate grade learners highlights a critical distinction between health focused support services and direct academic outcomes, as such programs play an essential role in promoting learner wellbeing, attendance, and engagement, though their academic effects are often indirect or limited unless paired with explicit instructional interventions. Gebreyesus et al. (2023) similarly found that in both the Philippines and Sub Saharan Africa, feeding and hygiene programs improve nutrition and reduce absenteeism but do not consistently translate into measurable gains in test scores or grades, suggesting that these initiatives must be strategically integrated with instructional quality improvements such as literacy and numeracy programs to generate significant academic benefits. De Guzman (2021) further cautioned that while these programs remain essential for equity and access, they should not be viewed as substitutes for direct academic enrichment if the goal is to boost learner achievement. Notably, Wyn et al. (2020) reported that evidence from Australia's KidsMatter mental health program showed that high quality implementation of health promoting initiatives can lead to academic performance gains equivalent to six additional months of schooling, suggesting that programs supporting student health and wellbeing can both bolster and be bolstered by strong academic performance, creating a potential virtuous cycle between health and academic success even when a direct statistical relationship was not established in the present study.

Finally, in terms of the best practices in the implementation of school based health related programs, the overall mean across all indicators was 4.27, verbally described as strongly agree, based on the legend where 1 to 1.8 corresponds to strongly disagree, 1.81 to 2.6 to disagree, 2.61 to 3.4 to undecided, 3.41 to 4.2 to agree, and 4.21 to 5 to strongly agree. The highest rated practice was "I align health related programs with the school's overall goals and policies," which obtained a mean of 4.58 and a standard deviation of 0.35, verbally interpreted as strongly agree. This implies that when health initiatives are designed in harmony with the school's broader mission and existing policies, they become more integrated, sustainable, and supported by the entire school community, ensuring that such programs are not viewed as isolated or temporary efforts but as essential components of the school's educational objectives. Friday et al. (2023) found that proactive alignment of physical activity interventions with district wellness policies resulted in dramatically improved policy strength and comprehensiveness, aiding long term integration into curriculum guides and school improvement plans, while the Cochrane Collaboration (2023) reported that employing multiple implementation strategies such as education outreach, materials, and proactive leadership when aligned with school policies leads to more robust adoption of health promoting initiatives. The second highest rated practice was "I provide feedback to students during and after health

program activities," which obtained a mean of 4.50 and a standard deviation of 0.19, verbally interpreted as agree. This implies that providing timely and constructive feedback helps reinforce positive behaviors, correct misconceptions, and guide students toward healthier choices, with immediate feedback fostering active engagement during activities and reflective feedback solidifying understanding and encouraging self assessment afterward. Zheng et al. (2025), citing Hattie and Timperley, noted that timely and constructive feedback has been shown to foster self regulation, motivation, and sustained participation, which are key factors in maintaining the impact of health programs, while Patil et al. (2024) found that structured formative feedback delivered alongside instructional activities significantly improved performance outcomes among health professionals in training and reduced anxiety by clarifying expectations and affirming progress.

In summary, the findings of this chapter reveal that the 50 teacher and learner respondents involved in this study exhibited varied demographic and socioeconomic profiles that shape the context in which school based health related programs are implemented, and that learners generally perceived the implementation of deworming, school based feeding, gulayan sa paaralan, and hygiene and sanitation programs favorably, with overall means ranging from 4.12 to 4.22, corresponding to agree and strongly agree. Despite these favorable perceptions, statistical analysis using Pearson r and t test computations revealed no significant relationship between learner perceptions of these programs and their academic performance general average, as all computed t values fell below the critical t value of 2.021 at the 0.05 level of significance, leading to the acceptance of the null hypothesis across all four program indicators. This suggests that while these health related programs remain vital for supporting learner welfare, attendance, and engagement, they do not by themselves produce statistically measurable gains in academic performance, underscoring the need for their integration with direct instructional strategies. At the same time, teachers demonstrated strong commitment to best practices in program implementation, with an overall mean of 4.27, particularly in aligning programs with school goals and providing consistent feedback to learners, reflecting a proactive and structured approach to program delivery. Collectively, these findings address the objectives of the study by profiling the respondents, assessing perceptions and academic outcomes, testing the hypothesized relationship, and documenting best practices, thereby contributing to a more nuanced understanding of how school based health related programs function within the broader educational context. These results provide a foundation for the recommendations and conclusions to be presented in the succeeding chapter, which will synthesize these findings into actionable insights for school administrators, teachers, and policymakers.

CONCLUSION

The findings of this study reveal that the teacher respondents were largely composed of individuals aged 31 to 40 years, predominantly female, and holding units toward a master's degree, with the majority having rendered 11 to 20 years of service and having attended one to three related seminars and training programs. These profiles suggest a teaching force that is generally experienced and academically inclined, though continuing professional development remains an area that could be further strengthened. Among the learner respondents, most belonged to families with a combined monthly income of P15,001 to P20,000, came from households with four to seven members, and were classified as having normal nutritional status, with a smaller proportion identified as wasted. These demographic and socioeconomic profiles

provide essential context for understanding the conditions under which the school based health related programs were implemented and received.

With respect to learner perceptions, deworming and school based feeding were both regarded with strong agreement, while gulayan sa paaralan and hygiene and sanitation were met with agreement, indicating that learners generally viewed these programs favorably, albeit with varying degrees of enthusiasm across specific initiatives. In terms of academic performance during the first quarter following the implementation of these programs, the largest proportion of learners achieved an outstanding rating, followed by those rated satisfactory, very satisfactory, and fairly satisfactory, with no learner falling into the category of not meeting expectations. This distribution suggests that learners were, on the whole, performing adequately to exceptionally well academically during the period under study.

Despite these generally favorable perceptions and academic outcomes, statistical analysis revealed that the computed *t* values for deworming, school based feeding, gulayan sa paaralan, and hygiene and sanitation were all lower than the critical *t* value of 2.021 at the 0.05 level of significance. This outcome led to the acceptance of the null hypothesis, indicating that no significant relationship exists between learner respondents' perceptions of the implementation of school based health related programs and their general academic performance average. Furthermore, the negative *r* values obtained across the four program areas point to weak inverse relationships that, while present, are not sufficiently strong to be considered meaningful or statistically significant. Taken together, these results imply that although learners hold generally positive views of these health related interventions, such perceptions do not, in themselves, translate into a measurable or direct influence on academic achievement, suggesting that other factors beyond program perception may play a more substantial role in shaping learners' academic outcomes. Notably, the overall mean for teachers' best practices in implementing these programs was rated with strong agreement, reflecting a high level of commitment and effectiveness on the part of the teacher respondents in carrying out these initiatives despite the absence of a statistically significant link to academic performance.

In light of these findings, it is recommended that an evidence based health related plan be adopted and implemented in order to build upon existing teacher best practices, strengthen program delivery, and further support the holistic development of learners even in the absence of a direct statistical relationship between perception and academic performance. Future researchers are likewise encouraged to explore related areas such as the role of leadership skills in effective school administration, the impact of school based health programs on the nutritional status and attendance of elementary learners, and the broader influence of school based feeding programs on learners' nutritional status and classroom performance, so as to deepen the understanding of how health related interventions intersect with educational outcomes over time.

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