

Nutritional Awareness and Its Influence on Food Choices among Pre-Service Teachers of MMSU-CTE

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ABSTRACT

This study examined the level of nutritional awareness and its relationship with food choices among working pre-service teachers at the College of Teacher Education of Mariano Marcos State University (MMSU-CTE), Philippines. Specifically, it aimed to determine the level of nutritional awareness of working pre-service teachers, assess their food choices, examine the relationship between nutritional awareness and food choices, identify factors influencing their food choices, and propose strategies to improve nutritional awareness and promote healthier eating habits. A convergent parallel mixed-method research design was employed. Quantitative data were collected through a structured survey questionnaire administered online to 60 purposively selected working pre-service teachers and analyzed using descriptive statistics and Pearson correlation. Qualitative data from open-ended questions were thematically analyzed to identify key factors influencing food choices and proposed strategies for improvement. Results revealed that respondents had a high level of nutritional awareness ($\bar{x} = 4.00$), demonstrating good nutritional knowledge and awareness. However, their food choices were rated only fair ($\bar{x} = 2.47$), characterized by low consumption of fruits and vegetables, preference for convenient and fast foods, and limited attention to portion control and hydration. Correlation analysis showed a very weak and non-significant relationship between nutritional awareness and food choices ($r = 0.02$, $p = 0.87$), indicating that knowledge alone did not translate into healthier eating behaviors. Qualitative findings identified financial constraints, convenience, and diet-related factors as major determinants of food choices. The study concludes that although working pre-service teachers are nutritionally knowledgeable, external constraints hinder the translation of awareness into healthier food choices. The study recommends integrating nutrition literacy and information evaluation programs into higher education, promoting affordable nutritious meals in school canteens, and collaborating with the Department of Health (DOH) and Food and Nutrition Research Institute (FNRI) to strengthen evidence-based nutrition education.

Keywords: Nutritional Awareness, Food Choices, Eating Habits, Working Pre-service Teachers, Food and Nutrition Education

INTRODUCTION

Nutrition plays a central role in sustaining human health and development, forming the foundation for physical growth, cognitive functioning, and the prevention of chronic diseases [30]. Across populations, adequate and balanced nutrition has consistently been linked to improved immunity, better physical performance, and long-term well-being [34], [42]. For working pre-service teachers, proper nutrition is especially important because they need energy, focus, and emotional balance to manage both their studies and their jobs [38]. The habits they develop now may also influence how they guide their future learners.

However, many studies show that university students often struggle to maintain healthy eating habits. This stage of life is typically marked by increased independence, heavier academic workloads, financial limitations, and changing social environments, all of which contribute to shifts in eating behaviors [43]. As a result, research has documented insufficient intake of fruits, vegetables, and other nutritious foods among students, along with a

higher dependence on convenience meals and processed products [2], [13]. These dietary patterns increase the risk of overweight, obesity, and other nutrition-related health concerns. Furthermore, the university food environment, including the availability and affordability of nutritious options on campus, can significantly influence dietary behaviors, even among those with adequate nutrition knowledge [7], [12].

Nutritional awareness, or knowing what foods are healthy and why they matter, plays a key role in shaping eating habits. Previous studies show that students with higher nutrition knowledge tend to select healthier foods, increase their fruit and vegetable intake, and reduce their consumption of processed and sugary items [24], [25], [39]. Conversely, limited nutritional awareness can lead to misconceptions about healthy diets and poor food decisions, often influenced by misleading marketing and insufficient nutrition education [27]. In the Philippines, national initiatives such as the Department of Science and Technology–Food and Nutrition Research Institute (DOST-FNRI) Pinggang Pinoy model aim to guide Filipinos toward balanced eating [16]. Nevertheless, reports continue to show that financial barriers, limited access to affordable nutritious foods, and unsupportive campus food environments make it difficult for many to follow recommended dietary practices [4].

Despite the growing number of studies on nutrition among college students, there is limited research focused specifically on working pre-service teachers. This is an important gap because pre-service teachers will eventually influence the health habits of their future students. Moreover, national policies such as the Philippine Plan of Action for Nutrition (PPAN) emphasize the need for evidence-based interventions in school communities. Yet, there remains a lack of academic studies assessing the nutritional awareness and food choices of students in teacher education programs. This situation highlights the need for localized, context-specific data that can support nutrition education programs and guide institutional policies within universities.

Given this gap, it is important to understand how much working pre-service teachers know about nutrition and how they apply this knowledge when making food choices. The results can help universities develop better nutrition education activities and support services. These findings may also encourage healthier eating habits among future teachers, which can positively influence the school communities they will eventually serve.

To address these needs, the study aims to determine the level of nutritional awareness among working pre-service teachers at MMSU, assess their food choices, examine the relationship between nutritional awareness and food choices, identify the factors influencing their food choices, and propose strategies to improve nutritional awareness and promote healthier eating habits among working pre-service teachers.

In conclusion, this study addresses an important gap in existing research and supports national efforts to improve nutrition in educational settings. By focusing on working pre-service teachers, it aims to provide useful information that can help strengthen nutrition programs and promote healthier lifestyles within universities.

RESEARCH METHODS

Research Design

This study employed a convergent parallel mixed-method research design, integrating both quantitative and qualitative approaches to determine the level of nutritional awareness and its influence on food choices of pre-service teachers in MMSU-CTE. The combination of methods allowed for a comprehensive understanding of how students' awareness of nutrition affected their dietary behaviors and preferences.

The quantitative component of the study focused on identifying the level of nutritional awareness and measuring its relationship with students' food choices using descriptive and correlation analyses. This provided measurable data on how nutritional awareness influenced decision-making regarding food consumption.

The qualitative component involved open-ended questions that explored the factors influencing food choices and the types of support they need to improve their nutritional awareness, and the role of various stakeholders including the school in helping them make healthier choices. These insights provided a deeper understanding of their specific needs and guided the development of strategies to enhance nutritional awareness and promote healthier food choices.

Locale of the Study

This study was conducted at the College of Teacher Education (CTE) of Mariano Marcos State University (MMSU), located in Laoag City, Ilocos Norte, Philippines. The college serves as the primary training ground for future educators and hosts a diverse population of pre-service teachers across various year levels and specializations.

Several contextual features of the CTE make it a relevant setting for the study. Many pre-service teachers within the college are working students, balancing academic requirements with part-time or full-time employment. This dual role influences their daily routines, time constraints, and eating behaviors, making CTE an appropriate site for examining nutritional awareness and healthy food choices among working pre-service teachers.

Population and Sampling Procedures

The population of the study consisted of working pre-service teachers enrolled in the College of Teacher Education (CTE) at Mariano Marcos State University (MMSU). These participants were specifically targeted because they balance academic responsibilities with part-time or full-time employment, which places them in situations that influence their daily routines, time management, and food selection practices. As individuals who independently manage their schedules and meal planning, working pre-service teachers provide an appropriate group for examining their nutritional awareness, the challenges they face in choosing healthy foods, and the strategies that may support healthier dietary behaviors.

The purposive sampling technique was employed to select pre-service teachers from MMSU-CTE who met the inclusion criteria and were willing to participate. A total of 60 participants were included in the study, providing a feasible and diverse sample to capture their perspectives on nutritional awareness, food choices, and factors influencing their eating habits. This approach ensured that the study reflected the diversity and context of the MMSU-CTE student population.

Research Instrument

The study utilized a survey questionnaire as the primary research instrument to gather data on the nutritional awareness, food choices, and factors influencing the dietary habits of MMSU-CTE pre-service teachers. The instrument was adapted from the studies of Lopez-Madrid et al. [29], Pineda et al. [33], and Angeles-Agdeppa et al. [6]. These materials were revised and contextualized to align with the objectives of the present study and the specific characteristics of its target respondents.

The survey consisted of both quantitative and qualitative components. The quantitative section included two parts: the Level of Nutritional Awareness among Working Pre-Service Teachers at MMSU-CTE and the Food Choices Behavior among Working Pre-Service Teachers, both measured using a 5-point Likert scale. These components assessed respondents' understanding of basic nutrition concepts as well as their food choices behavior. The qualitative section utilized open-ended interview questions to gain deeper insights into the participants' experiences as working pre-service teachers. It explored the factors influencing their food choices, their needs for improving nutritional awareness, and the types of institutional support that could help them adopt healthier eating habits. The survey was administered online through Google Forms, allowing respondents to complete it conveniently and efficiently.

Data Gathering Procedure

The data gathering procedure followed a structured process to ensure the reliability and accuracy of results. The survey was created using Google Forms and distributed to pre-service teachers through social media platforms, particularly Facebook Messenger, to maximize accessibility and reach. The researchers actively monitored inquiries and provided clarifications when necessary, encouraging participation and ensuring that respondents understood the instructions. The online distribution method facilitated efficiency in data collection, particularly for students with varying academic schedules.

Once all responses were received, the data were organized and prepared for analysis. Quantitative responses were tabulated for statistical computation, including mean scores, rank, and correlation analysis, while qualitative answers from open-ended questions were thematically analyzed to identify recurring themes and insights regarding feasible strategies to improve nutritional awareness and promote healthier food choices among working pre-service teachers.

Statistical Treatment

The data gathered were systematically organized and tabulated using Microsoft Excel, where responses were arranged according to the variables under study. Excel was also used to perform all statistical computations, including descriptive statistics, mean scores, ranking, and Pearson correlation analysis.

Descriptive statistics were employed to analyze the level of nutritional awareness, and food choices. The level of nutritional awareness among working pre-service teachers at MMSU was interpreted using the following scale: 4.21–5.00 (Strongly Agree/Very High), 3.41–4.20 (Agree/High), 2.61–3.40 (Neutral/Moderate), 1.81–2.60 (Disagree/Low), and 1.00–1.80 (Strongly Disagree/Very Low). Food choices were interpreted as 4.21–5.00 (Strongly Agree/Excellent), 3.41–4.20 (Agree/Very Good), 2.61–3.40 (Neutral/Good), 1.81–2.60 (Disagree/Fair), and 1.00–1.80 (Strongly Disagree/Poor).

Pearson correlation coefficient (r) was employed to determine the strength and direction of the relationship between nutritional awareness and food choices, with the correlation interpreted as 0.00–0.19 (Very Weak), 0.20–0.39 (Weak), 0.40–0.59 (Moderate), 0.60–0.79 (Strong), and 0.80–1.00 (Very Strong). The direction of the relationship was identified as positive or negative, and statistical significance was determined using p -values, with $p < 0.05$ indicating a significant correlation and $p > 0.05$ indicating no significant relationship.

Qualitative data from open-ended questions were coded and grouped into recurring themes to provide insights into common factors influencing students' dietary decisions and propose strategies to improve nutritional awareness and promote healthy eating habits. This comprehensive approach allowed for an integrated understanding of how nutritional awareness influences food choices and the contextual factors shaping these behaviors.

Ethical Consideration

The researchers strictly adhered to ethical standards throughout the study. Before data collection, participants were informed of the study's purpose, scope, and their rights as respondents. Informed consent was obtained electronically, ensuring that participation was voluntary and that individuals could withdraw at any time without repercussions.

To maintain confidentiality, no identifying information was collected, and all responses were treated anonymously. The data were stored securely and were accessible only to the researchers. Furthermore, the information gathered was used exclusively for academic purposes. The entire research process complied with institutional ethics guidelines and upheld the principles of transparency, respect, and research integrity.

RESULTS AND DISCUSSIONS

A. Level of Nutritional Awareness Among Working Pre-service Teachers at MMSU

TABLE I LEVEL OF NUTRITIONAL AWARENESS AMONG WORKING PRE-SERVICE TEACHERS AT MMSU

Statements	Mean	DI
I know what makes up a balanced meal (carbohydrates, proteins, and vegetables/fruits).	4.10	Agree
I can interpret basic nutrition information on food labels.	3.95	Agree
I am aware of the recommended daily intake for fruits and vegetables.	3.95	Agree
I know the health risks of excessive sugar consumption.	4.15	Agree
I can identify healthier cooking methods (e.g., steaming, grilling).	4.03	Agree
I understand how too much sodium affects health.	4.02	Agree

I am familiar with the <i>Pinggang Pinoy</i> plate model.	4.05	Agree
I know which foods are high in dietary fiber.	3.85	Agree
I can distinguish foods that are high in saturated fat.	3.80	Agree
I understand how food choices can impact my overall well-being.	4.07	Agree
Overall Mean	4.00	Agree/High

Note: DI-Descriptive Interpretation; 4.21–5.00 (Strongly Agree/Very High); 3.41–4.20 (Agree/High); 2.61–3.40 (Neutral/Moderate); 1.81–2.60 (Disagree/Low); 1.00–1.80 (Strongly Disagree/Very Low)

Table 1 shows that the respondents have a high level of nutritional awareness with an overall mean of 4.00. Participants reported strong familiarity with balanced meals ($\bar{x}=4.10$), the health risks of excessive sugar ($\bar{x}=4.15$) and sodium intake ($\bar{x}=4.02$), healthy cooking methods ($\bar{x}=4.03$), and the *Pinggang Pinoy* model ($\bar{x}=4.05$). They also indicated awareness of nutrition labels ($\bar{x}=3.95$), dietary fiber ($\bar{x}=3.85$), and saturated fat ($\bar{x}=3.80$).

These results indicate that working pre-service teachers possess basic theoretical nutrition knowledge. This aligns with findings that university students generally demonstrate moderate to high nutrition literacy [11], [12], [24], [25]. Similarly, studies have noted that while students show considerable knowledge of nutrition, gaps remain in the practical application of this knowledge [35], [44], [45]. In the Philippine context, many young individuals are aware of dietary guidelines, including the *Pinggang Pinoy* model, although adherence remains low [16], [29].

These findings suggest that the respondents' high level of nutritional awareness is consistent with broader research showing that university students often understand basic nutrition concepts [3], [32]. However, knowledge may not extend to deeper competencies required for consistent healthy practices [40]. Nonetheless, this strong awareness provides an essential starting point for encouraging improved dietary practices.

Food Choices among Working Pre-service Teachers at MMSU

Table II Food Choices Among Working Pre-Service Teachers at Mmsu

Statements	Mean	DI
I eat more fruits and vegetables than junk food.	2.40	Disagree
I prefer home-cooked meals over fast food.	2.47	Disagree
I choose foods low in sugar.	2.38	Disagree
I regularly eat high-fiber foods.	2.37	Disagree
I avoid foods high in saturated fat.	2.37	Disagree
I drink enough water instead of sugary drinks.	2.48	Disagree
I include protein-rich foods in my meals.	2.42	Disagree
I pay attention to portion sizes when I eat.	2.52	Disagree
I balance my meals with carbs, protein, and vegetables.	2.75	Neutral
I sometimes choose foods based on cravings rather than health.	2.55	Disagree
Overall Mean	2.47	Disagree/Fair

Note: DI-Descriptive Interpretation; 4.21–5.00 (Strongly Agree/Excellent); 3.41–4.20 (Agree/Very Good); 2.61–3.40 (Neutral/Good); 1.81–2.60 (Disagree/Fair); 1.00–1.80 (Strongly Disagree/Poor)

Despite having high nutritional awareness, the respondents reported fair food choices with an overall mean of 2.47. They disagreed with statements related to eating more fruits and vegetables ($\bar{x}=2.40$), preferring home-cooked meals ($\bar{x}=2.47$), avoiding sugary foods ($\bar{x}=2.38$) and saturated fats ($\bar{x}=2.37$), and regularly consuming high-fiber foods ($\bar{x}=2.37$). They also indicated low attention to portion sizes and hydration, while balancing meals scored only a neutral rating ($\bar{x}=2.75$).

This outcome mirrors a recurring pattern in the literature, wherein students possess adequate nutrition knowledge but still engage in unhealthy eating behaviors [9], [26], [37]. Studies have observed poor dietary intake among university students, with many relying on convenient food vendors [5]. Similarly, research has found low fruit and vegetable consumption and high intake of processed foods among college populations [3], [17], [28]. Other scholars have reported that time constraints, taste preferences, cost, and convenience significantly influence students' dietary patterns, often overshadowing health considerations [5], [8].

Furthermore, university environments commonly offer energy-dense, nutrient-poor foods, making it difficult for students to make healthier choices [7]. Philippine-based studies also show that many Filipino youths fail to meet dietary recommendations despite awareness efforts [17], [29]. The preference for high-calorie, fast food options likewise parallels this study's findings [17], [28].

Overall, the respondents' food choices reflect the complexity of eating behavior in university populations, where practical, social, and environmental pressures strongly influence consumption patterns, even among individuals who recognize the importance of healthy eating [20].

Correlation Between Nutritional Awareness and Food Choices

Table III Correlation Between Nutritional Awareness and Food Choices (N=60)

Variables Compared	r-value	t-value	p-value	DI
Nutritional Awareness and Food Choices	0.02	0.17	0.87	Very Weak, Positive, Not Significant

Note: 0.00–0.19 (Very Weak); 0.20–0.39 (Weak); 0.40–0.59 (Moderate); 0.60–0.79 (Strong); 0.80–1.00 (Very Strong); direction = Positive/Negative; $p < 0.05$ (Significant); $p > 0.05$ (Not Significant).

The correlation analysis revealed a very weak positive but not significant relationship between nutritional awareness and food choices, with $r = 0.02$, $t = 0.17$, and $p = 0.87$. This indicates that nutritional awareness does not predict healthier food choices among working pre-service teachers.

This finding is strongly supported by existing literature. Previous studies found no direct relationship between nutritional knowledge and actual food consumption among Filipino students [10]. Similarly, nutrition education has been shown to increase knowledge and improve attitudes but not necessarily lead to meaningful behavioral change [36]. Other research also stresses that although students may have positive perceptions toward nutrition labels, poor understanding and inconsistent use of this information limit its impact on food choices [31].

The persistent knowledge–behavior gap is well-documented. Students often know general nutrition facts but lack the practical skills or environmental support needed to implement them [40]. Improved dietary behavior occurs only when knowledge is paired with supportive food environments [46].

These results also reinforce the Theory of Planned Behavior, which posits that knowledge alone does not determine behavior [1]. Rather, choices are shaped by attitudes, social influences, and perceived control over one's environment (e.g., affordability, access, time)—factors strongly reflected in this study's findings on determinants of food choices. Therefore, the lack of significant correlation demonstrates that high nutritional awareness does not automatically translate into healthy eating patterns.

Factors Influencing Food Choices among Working Pre-service Teachers at MMSU

Table Iv Factors Influencing Food Choices Among Working Pre-Service Teachers at Mmsu

Themes (Factors)	Codes	f	%	Rank
Financial Factors	Limited budget	5	50%	1
	Affordability of foods	3	30%	2
	Income and allowance	2	20%	3
Convenience	Availability of foods	4	40%	1
	Time constraints	3	30%	2
	Accessibility of foods	3	30%	2
Diet-related factors	Eating habits	4	40%	1
	Dietary preferences	3	30%	2
	Dietary restrictions	3	30%	2

The thematic analysis revealed that financial factors ranked prominently in influencing respondents' food choices, with limited budget emerging as the most frequently cited code (50%). This indicates that financial constraints significantly shape students' ability to choose foods, often forcing them to prioritize cost over nutritional value. Respondents also identified affordability of foods (30%) and income and allowance (20%) as additional financial challenges. One respondent noted that food choices are often determined by "what I can afford with my daily allowance," highlighting how budget limitations restrict access to healthier options. These findings align strongly with existing literature, which consistently identifies cost as a principal determinant of food choice among students [5], [8], [18]. Studies have shown that students frequently face a trade-off between affordable and nutritious foods, often opting for cheaper, less healthy alternatives due to financial limitations [2].

The convenience theme also emerged as a significant factor affecting food choices. Availability of foods was ranked highest within this theme (40%), followed by time constraints and accessibility of foods (both at 30%). Respondents emphasized that busy academic schedules and limited time for meal preparation push them toward readily available and easily accessible food options, which are often fast food or pre-prepared meals. One participant shared that "*I usually eat what is available in the canteen because I don't have time to prepare meals,*" underscoring the role of convenience in daily food decisions. This finding is consistent with previous research showing that university environments often promote convenient, low-cost, and nutrient-poor food options, making healthy eating more difficult for students [2], [7]. The dominance of convenience-related factors reflects how environmental constraints and time pressures shape eating behaviors, particularly among working students.

In terms of diet-related factors, eating habits ranked highest (40%), followed by dietary preferences and dietary restrictions (both at 30%). This suggests that personal routines, taste preferences, and individual dietary needs continue to influence food choices despite external constraints. Respondents indicated that habitual eating patterns and preferred tastes often guide their decisions, even when healthier options are available. These results are supported by studies emphasizing that individual factors such as taste, preferences, and cooking skills play a critical role in food selection, alongside broader social and environmental influences [22], [26]. The interaction between personal habits and situational pressures further highlights the complex and multidimensional nature of food choice behavior.

Overall, the findings demonstrate that respondents tend to prioritize practical determinants—such as affordability, availability, and convenience—over health considerations. This pattern mirrors existing research showing that students, particularly those balancing academic responsibilities and limited resources, often struggle to adopt healthy eating habits in real-world settings [5], [8], [18]. The influence of environmental constraints, including food availability and price, alongside individual preferences and habits, reinforces the need for comprehensive strategies that address both personal and structural barriers to healthy eating. Improving access to affordable, nutritious food options within campus settings may help mitigate these challenges and support healthier dietary behaviors among students.

Proposed Strategies to Improve Nutritional Awareness and Promote Healthier Food Choices Among Working Pre-service Teachers

Table V Thematic Analysis on Proposed Strategies to Improve Nutritional Awareness and Promote Healthier Food Choices Among Working Pre-Service Teachers

Themes (Factors)	Codes	f	%	Rank
Nutrition Education and Skill Development	Nutrition seminars, posters, and online tips	5	50%	1
	Meal-prep and cooking workshops	3	30%	2
	Self-monitoring tools, apps, and food tracking	2	20%	3
Practical and Economic Support for Healthy Eating	Budget-friendly healthy food options	5	50%	1
	Time-saving nutrition supports (grab-and-go meals, appliances)	4	40%	2
	Affordable meal-planning strategies	1	10%	3
Social, Environmental, and Institutional Support	Improved canteen and campus food environment	6	60%	1
	Peer and mentor support for nutrition awareness	2	20%	2
	Institutional support, policies, and wellness programs	2	20%	2

The findings reveal that improving nutritional awareness and promoting healthier food choices among working pre-service teachers in MMSU-CTE requires a multifaceted and integrated approach. The thematic analysis highlights three major themes: Nutrition Education and Skill Development, Practical and Economic Support for Healthy Eating, and Social, Environmental, and Institutional Support, each reflecting distinct yet interconnected strategies necessary to address the nutritional challenges faced by working pre-service teachers.

Among the identified themes, Nutrition Education and Skill Development emerged as a key area of concern. The most frequently cited code under this theme was the need for nutrition seminars, posters, and online tips (50%, Rank 1), underscoring the importance of continuous and accessible nutrition education. This finding suggests that working pre-service teachers recognize the value of regular information dissemination through seminars, workshops, and wellness sessions to enhance their nutritional knowledge. Supplementary educational materials, such as handouts, posters, and digital reminders, were viewed as effective tools in reinforcing healthy eating behaviors, especially given the demanding schedules of working students. Additionally, meal preparation and cooking workshops (30%, Rank 2) highlight the need for skill-based learning opportunities that translate nutrition knowledge into practice. The inclusion of self-monitoring tools, apps, and food tracking (20%, Rank 3) further emphasizes the role of personal accountability and awareness in sustaining healthy dietary habits, despite time and workload constraints.

The theme Practical and Economic Support for Healthy Eating reflects the financial and time-related challenges experienced by working pre-service teachers. The most dominant code in this theme was the availability of budget-friendly healthy food options (50%, Rank 1), indicating that affordability remains a primary determinant of food choice. This aligns with the recommendation to promote cost-effective meal plans and collaborate with campus food services to offer nutritious yet affordable meals. Time-saving nutrition supports, such as grab-and-go meals and access to kitchen appliances (40%, Rank 2), further highlight the need for convenience-oriented solutions that accommodate students' busy academic and work schedules. In contrast, affordable meal-planning strategies (10%, Rank 3) were less frequently mentioned but remain essential in helping students manage limited resources while maintaining balanced diets. Overall, these findings emphasize that nutritional interventions must address both economic limitations and time constraints to be effective.

The third theme, Social, Environmental, and Institutional Support, recorded the highest overall frequency, particularly for improving the canteen and campus food environment (60%, Rank 1). This result indicates that participants view the school food environment as a critical factor influencing their food choices. Enhancing canteen offerings, implementing menu labeling, and ensuring the availability of healthier food options can

significantly support healthier eating behaviors. Peer and mentor support for nutrition awareness (20%, Rank 2) highlights the influence of social relationships in shaping dietary habits, suggesting that peer groups, mentors, and faculty can serve as role models and sources of motivation. Similarly, institutional support, policies, and wellness programs (20%, Rank 2) reflect the need for administrative involvement in creating sustainable health-promoting environments through structured wellness initiatives, policy development, and continuous feedback mechanisms.

Overall, the results demonstrate that working pre-service teachers in MMSU-CTE face intertwined challenges related to knowledge gaps, limited time, financial constraints, and environmental barriers. The prominence of education-based strategies, combined with practical, economic, and institutional supports, underscores the need for a holistic framework that integrates nutrition education, skill development, accessible healthy food options, social encouragement, and supportive policies. By addressing these interconnected factors, MMSU-CTE can foster sustainable healthy eating behaviors that not only improve students' well-being but also prepare future educators to model and promote positive nutritional practices in their professional roles.

CONCLUSION

Based on the findings of this study, it can be concluded that working pre-service teachers at MMSU possess a generally high level of nutritional awareness, particularly in their understanding of balanced meals, healthy cooking methods, and the health risks associated with excessive sugar and sodium consumption. They also demonstrate familiarity with national dietary guidelines such as the Pinggang Pinoy model. However, this awareness does not consistently translate into healthier eating behaviors. Despite knowing the principles of good nutrition, their actual food choices remain fair, characterized by low intake of fruits and vegetables, preference for convenient and fast foods, and limited attention to portion control and hydration. This indicates that nutritional awareness alone is insufficient to ensure the adoption of healthy dietary practices.

The very weak and statistically insignificant correlation ($r = 0.02$, $p = 0.87$) between nutritional awareness and food choices reinforces that knowledge does not necessarily equate to behavior change. This aligns with [1]. Theory of Planned Behavior, which posits that attitudes, social norms, and perceived control—rather than knowledge alone—determine actual behavior.

The qualitative findings also demonstrate that students recognize multiple barriers that hinder the application of their nutritional awareness, including limited access to healthy foods on campus, time constraints for cooking, financial limitations, and the need for practical skills such as meal planning and food preparation. They also emphasized the importance of institutional support, peer involvement, and improved campus food environments in facilitating healthier food choices.

These findings carry important implications for educational institutions and policymakers. Improving nutrition-related behaviors among working pre-service teachers requires a multidimensional approach that combines education, practical skills training, environmental restructuring, and institutional support [4]. Beyond teaching nutrition concepts, universities must create food environments and support systems that enable students to make healthier choices despite time, budget, and workload constraints.

To address these issues, this study recommends that institutions: (1) integrate nutrition awareness, meal planning, and practical food preparation skills into student development programs; (2) implement regular nutrition education activities, workshops, and digital information campaigns to reinforce accurate and evidence-based health information; (3) collaborate with canteen operators and local vendors to ensure the availability of affordable, accessible, and appealing healthy food options on campus; (4) develop wellness and nutrition initiatives that engage peer groups, faculty mentors, and student organizations to strengthen social support for healthy eating; and (5) provide tools and resources for self-monitoring, such as nutrition apps, food journals, and wellness challenges to encourage consistent health habits.

Future research should explore intervention-based approaches to determine which strategies most effectively bridge the knowledge-behavior gap among working students. Longitudinal studies are also recommended to examine how changes in campus food environments, educational initiatives, and institutional policies influence dietary behavior over time.

This study contributes to the growing body of literature by providing empirical evidence that, among Filipino working pre-service teachers, nutritional knowledge is high but does not automatically lead to healthy eating practices. It underscores that the pathway to healthier food choices extends beyond awareness, requiring supportive environments, practical skills, and accessible options that empower students to apply what they know in their daily lives.

LIMITATIONS OF THE STUDY

This study has several limitations. First, it was conducted only among working pre-service teachers at MMSU–CTE. Given that the participants came from just one college, the results may not fully represent other working pre-service teachers from different universities. This limits the ability to apply the findings to broader groups of students. Therefore, the conclusions should be understood within the specific context of MMSU–CTE.

Second, the data were collected within a short period of time. This limited duration made it hard to observe gradual or long-term changes in participants' eating habits. Nutritional awareness and food choices may shift over months or years, but this study could not capture those developments. As a result, the findings reflect only the participants' behavior during the period of data collection. Longer studies might produce different or more detailed results.

Third, the study examined only selected variables related to nutritional awareness and food choices. This means that the research did not include additional aspects that could have offered a deeper understanding of students' eating behaviors. By focusing on only a few variables, the study provided a narrower view of the topic. This limited scope may have prevented the identification of other important factors. Future research may benefit from including more variables for a more complete picture.

Another limitation relates to the specific context of Ilocos Norte. The food environment in the province, including what foods are easily available, may differ from those in other regions. Local eating habits and commonly practiced dietary patterns can also shape how students choose their food. Because of these differences, the results may not be applicable to students in other provinces or regions. This means that the generalizability of the study remains limited.

Lastly, although the research instrument was adapted from a validated study, modifications were made to fit the local context, which may have slightly influenced the consistency or comparability of the results with similar studies conducted elsewhere.

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