

**NUTRITION AWARENESS, SELF-EFFICACY, AND PERCEIVED BARRIERS AS
PREDICTORS OF HEALTHY EATING ATTITUDES AMONG MALE UNIVERSITY STAFF IN
PLATEAU STATE, NIGERIA**

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Abstract

Healthy eating is essential for the prevention of non-communicable diseases and the promotion of overall health and well-being. However, the adoption and maintenance of healthy dietary behaviours are influenced by several psychosocial factors. This study investigated the predictive roles of nutrition awareness, self-efficacy, and perceived barriers on healthy eating attitudes among male university staff in Plateau State, Nigeria. A descriptive cross-sectional survey design was employed. The study population comprised male academic and administrative staff of selected universities in Plateau State, from which a sample of 300 respondents was selected using simple random sampling techniques. Data were collected using a structured questionnaire covering socio-demographic characteristics, nutrition awareness, self-efficacy, perceived barriers, and healthy eating attitudes. The instrument was validated by experts in Home Economics, Nutrition Education, and Measurement and Evaluation, while reliability was established using Cronbach's alpha coefficient. Data were analysed using descriptive statistics, Pearson Product-Moment Correlation, and multiple regression analysis at the 0.05 level of significance. Findings revealed that respondents generally exhibited positive attitudes toward healthy eating. Nutrition awareness ($r = 0.45$, $p < 0.001$) and self-efficacy ($r = 0.50$, $p < 0.001$) demonstrated significant positive relationships with healthy eating attitudes, whereas perceived barriers ($r = -0.40$, $p < 0.001$) showed a significant negative relationship. Multiple regression analysis further indicated that self-efficacy ($\beta = 0.25$, $p = 0.002$), perceived benefits ($\beta = 0.30$, $p < 0.001$), and perceived barriers ($\beta = -0.28$, $p < 0.001$) were significant predictors of healthy eating attitudes among the respondents. The study concluded that healthy eating attitudes among male university staff are influenced by both cognitive and environmental factors. It was recommended that workplace nutrition education and health promotion programmes aimed at strengthening self-efficacy and reducing barriers to healthy eating should be intensified to encourage healthier dietary behaviours among university personnel.

Keywords: *healthy eating attitudes, nutrition awareness, self-efficacy, perceived barriers, male university staff, Plateau State, Nigeria.*

INTRODUCTION

Healthy eating is fundamental to human health and well-being and constitutes an important determinant of disease prevention and quality of life. A healthy diet provides essential nutrients

required for growth, development, and maintenance of physiological functions while reducing the risk of nutrition-related diseases. The World Health Organization (WHO, 2024) identified unhealthy dietary practices as one of the major behavioural risk factors contributing to the increasing prevalence of non-communicable diseases (NCDs), including obesity, hypertension, diabetes mellitus, cardiovascular diseases, and certain forms of cancer. Consequently, promoting healthy eating behaviours has become a global public health priority.

Rapid urbanization, industrialization, and changing lifestyles have altered dietary patterns worldwide. These changes have led to increased consumption of highly processed foods, saturated fats, refined sugars, and sodium, while the consumption of fruits, vegetables, and whole grains has declined. Popkin, Corvalan, and Grummer-Strawn (2020) described this phenomenon as the nutrition transition, which has contributed significantly to the rising burden of chronic diseases in developing countries. In Nigeria, socioeconomic changes and modernization have further influenced food preferences and dietary behaviours among adults, thereby increasing vulnerability to diet-related health conditions.

University employees constitute an important segment of the workforce because of their contributions to teaching, research, and administrative responsibilities. However, the demanding nature of university work, characterized by prolonged sedentary activities, occupational stress, and irregular work schedules, may adversely affect dietary choices and health behaviours. Male university staff, in particular, may be exposed to several psychosocial and environmental factors that influence their attitudes toward healthy eating. Understanding these factors is necessary for designing interventions aimed at promoting healthier dietary practices and improving overall health outcomes.

Healthy Eating and Public Health

Healthy eating is increasingly recognized as a critical component of public health because of its role in preventing disease and promoting longevity. Appropriate dietary practices contribute to improved immune function, increased productivity, and reduced healthcare costs. Conversely, unhealthy diets have been associated with increased morbidity and mortality worldwide. According to the Food and Agriculture Organization (2023), poor dietary habits constitute one of the major contributors to malnutrition in all its forms and significantly affect economic productivity and national development. The increasing prevalence of non-communicable diseases has heightened the need for effective nutrition education and health promotion programmes targeted at adults and working populations. Since dietary behaviours are influenced by a complex interplay of cognitive, social, and environmental factors, understanding the determinants of healthy eating attitudes among university employees is essential for developing effective interventions.

Nutrition Awareness and Healthy Eating Behaviour

Nutrition awareness refers to an individual's knowledge and understanding of the relationship between food and health. Adequate nutrition awareness enables individuals to make informed food choices and adopt healthy dietary practices. Studies have shown that individuals with higher levels of nutrition knowledge are more likely to exhibit positive attitudes toward healthy eating and engage in health-promoting behaviours.

Nutrition awareness plays an important role in influencing food selection, meal planning, and adherence to dietary recommendations. Although knowledge alone may not guarantee behaviour change, it provides the foundation upon which healthy attitudes and practices are built. Previous studies have reported positive associations between nutrition awareness and healthy eating behaviours among adults and working populations.

Self-Efficacy and Dietary Behaviour

Self-efficacy refers to an individual's belief in his capability to organize and execute actions necessary to achieve specific goals. According to Bandura (1997), self-efficacy influences motivation, perseverance, and behavioural outcomes. Individuals with high self-efficacy are more likely to initiate and sustain healthy behaviours despite challenges and competing demands.

In relation to dietary behaviour, self-efficacy determines an individual's confidence in making healthy food choices, maintaining balanced diets, and resisting unhealthy eating habits. Persons who

possess strong beliefs in their ability to control their eating behaviours are more likely to develop positive attitudes toward healthy eating and maintain healthier lifestyles.

Perceived Barriers to Healthy Eating

Despite increasing awareness regarding the benefits of healthy diets, several barriers continue to hinder the adoption of healthy eating behaviours. Common barriers include lack of time, occupational stress, financial constraints, limited access to healthy foods, and the perceived high cost of nutritious foods. Such barriers may discourage individuals from translating nutrition knowledge into healthy dietary practices.

Among university staff, demanding work schedules and competing responsibilities may further limit opportunities for meal planning and healthy food choices. These constraints may negatively influence attitudes toward healthy eating and reduce adherence to recommended dietary guidelines. Therefore, understanding the barriers that impede healthy eating is essential for developing strategies aimed at improving dietary behaviours.

Theoretical Framework

Health Belief Model

The Health Belief Model, developed by Rosenstock (1974), explains health-related behaviours based on individuals' perceptions of susceptibility, severity, benefits, and barriers. The model posits that individuals are more likely to engage in healthy behaviours when they perceive significant benefits and fewer barriers to action. The model is relevant to this study because healthy eating attitudes may be influenced by individuals' perceptions of the benefits of healthy diets and the obstacles that hinder their adoption.

Social Cognitive Theory

Social Cognitive Theory, developed by Bandura (1986), emphasizes the reciprocal interaction among personal factors, environmental influences, and behaviour. Central to the theory is self-efficacy, which reflects an individual's confidence in performing a particular behaviour successfully. The theory provides a useful framework for understanding healthy eating attitudes because individuals with greater self-efficacy are more likely to adopt and sustain desirable dietary practices despite environmental challenges.

Statement of the Problem

Although awareness concerning healthy eating has improved considerably, unhealthy dietary behaviours remain prevalent among adults and working populations. University staff are often exposed to occupational stress, time constraints, and environmental conditions that may negatively influence their dietary behaviours. Despite growing evidence regarding the importance of nutrition awareness and self-efficacy in promoting healthy lifestyles, many individuals still encounter barriers that hinder the adoption of healthy eating practices.

In Nigeria, limited empirical evidence exists regarding the combined influence of nutrition awareness, self-efficacy, and perceived barriers on healthy eating attitudes among male university staff. Most previous studies have focused on dietary practices among students and the general population, with relatively little attention given to university employees. This gap in knowledge necessitated the present study.

Purpose of the Study

The purpose of this study was to investigate the predictive roles of nutrition awareness, self-efficacy, and perceived barriers on healthy eating attitudes among male university staff in Plateau State, Nigeria.

Specifically, the study sought to:

1. determine the attitudes of male university staff toward healthy eating;
2. assess the relationship between nutrition awareness and healthy eating attitudes;
3. examine the relationship between self-efficacy and healthy eating attitudes;
4. determine the relationship between perceived barriers and healthy eating attitudes; and

5. identify the predictors of healthy eating attitudes among male university staff in Plateau State, Nigeria.

MATERIALS AND METHODS

Research Design

This study adopted a descriptive cross-sectional survey design to investigate the predictive roles of nutrition awareness, self-efficacy, and perceived barriers on healthy eating attitudes among male university staff in Plateau State, Nigeria. The design was considered appropriate because it enabled the collection of data from respondents at a single point in time and facilitated the examination of relationships among the study variables without manipulating the study environment.

Study Area

The study was conducted in Plateau State, Nigeria. Plateau State is located in the North-Central geopolitical zone of the country and is home to several public and private universities. The institutions comprise academic and administrative personnel whose occupational responsibilities and work environments may influence their dietary behaviours and health-related attitudes. The choice of the study area was based on the need to investigate healthy eating attitudes among male university staff within the state.

Population of the Study

The population for the study comprised all male academic and administrative staff in selected universities in Plateau State, Nigeria. These staff members constituted the target population because of their active involvement in teaching, research, administration, and other institutional responsibilities, which may affect their dietary behaviours and lifestyle patterns.

Sample Size Determination

A sample size of 300 respondents was used for the study. The sample was considered adequate for investigating the relationships among nutrition awareness, self-efficacy, perceived barriers, and healthy eating attitudes among male university staff in Plateau State.

Sampling Procedure

A simple random sampling technique was employed to select the respondents. The technique ensured that every eligible male staff member had an equal opportunity of being included in the study, thereby enhancing the representativeness of the sample and minimizing selection bias.

Instrumentation

Data for the study were collected using a structured questionnaire titled **Nutrition Awareness, Self-Efficacy, Perceived Barriers and Healthy Eating Attitudes Questionnaire (NASEPBHEAQ)**. The instrument consisted of five sections.

Section A elicited information on respondents' socio-demographic characteristics such as age, marital status, educational qualification, occupational category, and years of work experience.

Section B assessed respondents' nutrition awareness regarding healthy eating and dietary recommendations.

Section C measured self-efficacy relating to healthy eating behaviours.

Section D assessed perceived barriers to healthy eating.

Section E measured respondents' attitudes toward healthy eating using a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1).

Validity

The instrument was subjected to face and content validation by experts in Home Economics, Nutrition Education, and Measurement and Evaluation from the Department of Science and Technology Education, University of Jos. Their comments and suggestions regarding clarity, appropriateness, and relevance of the items were incorporated into the final version of the questionnaire.

Reliability

A pilot study was conducted among respondents who possessed characteristics similar to those of the study population but were excluded from the main study. The responses obtained were subjected to Cronbach's alpha reliability analysis to determine the internal consistency of the instrument. The reliability coefficient obtained indicated that the instrument possessed satisfactory reliability and was therefore suitable for data collection.

Data Collection Procedure

Approval for data collection was obtained from the relevant institutional authorities. The researcher, with the assistance of trained research assistants, administered copies of the questionnaire directly to the respondents. The purpose of the study was explained to participants, and informed consent was obtained before the administration of the instrument. Completed questionnaires were retrieved immediately after completion to ensure a high response rate.

Ethical Considerations

Ethical approval was obtained from the appropriate institutional ethics committee before the commencement of the study. Participation in the study was voluntary, and respondents were assured of anonymity and confidentiality. Participants were informed of their right to withdraw from the study at any stage without any consequences. Information obtained from respondents was used strictly for research purposes.

Statistical Analysis

Data collected were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 28. Descriptive statistics including frequencies, percentages, means, and standard deviations were used to summarize respondents' characteristics and levels of the study variables. Pearson Product-Moment Correlation was employed to determine the relationships among nutrition awareness, self-efficacy, perceived barriers, and healthy eating attitudes. Multiple regression analysis was used to identify the predictors of healthy eating attitudes among respondents. All statistical tests were performed at the 0.05 level of significance.

RESULTS

Socio-demographic Characteristics

A total of 300 male university staff participated in the study. Table 1 presents the socio-demographic characteristics of the respondents. The majority of the respondents were within the age range of 35–44 years (41.3%), while 70.0% were married. Academic staff constituted 56.7% of the respondents, whereas administrative staff accounted for 43.3%. In terms of educational qualification, 49.3% possessed Master's degrees, while 23.4% had doctoral degrees. Regarding years of work experience, 44.0% had between 10 and 19 years of service.

Table 1: Socio-demographic Characteristics of Respondents (N = 300)

Variables	Frequency Percentage (%)	
Age 25–34 years	78	26.0
Age 35–44 years	124	41.3
Age 45–54 years	68	22.7

Variables Frequency Percentage (%)

Age 55 years and above	30	10.0
Single	62	20.7
Married	210	70.0
Widowed/Separated	28	9.3
Academic Staff	170	56.7
Administrative Staff	130	43.3
Bachelor's Degree	82	27.3
Master's Degree	148	49.3
Doctorate Degree	70	23.4

Attitudes Toward Healthy Eating

The findings revealed that respondents generally exhibited positive attitudes toward healthy eating. Most participants agreed that healthy eating contributes to disease prevention and overall well-being. They also indicated favourable dispositions toward consuming nutritious foods and maintaining healthy dietary habits.

Table 2: Attitudes Toward Healthy Eating among Respondents

Attitude Variable Frequency Percentage (%)

Positive attitude toward healthy eating	126	42.0
Healthy foods are enjoyable	114	38.0
Healthy eating prevents diseases	126	42.0
Healthy diets improve quality of life	135	45.0

The results suggest that male university staff generally possessed favourable attitudes toward healthy eating.

Nutrition Awareness Levels

Respondents demonstrated moderate to high levels of nutrition awareness. Most participants acknowledged the importance of balanced diets, regular consumption of fruits and vegetables, and the role of healthy eating in preventing chronic diseases.

Table 3: Nutrition Awareness Levels among Respondents

Level of Nutrition Awareness Frequency Percentage (%)

High awareness	142	47.3
Moderate awareness	108	36.0
Low awareness	50	16.7

The findings indicate that respondents generally possessed adequate nutrition awareness regarding healthy eating.

Self-Efficacy Levels

The results showed that respondents differed in their confidence to maintain healthy dietary behaviours. Only 35.0% demonstrated high self-efficacy, whereas 65.0% reported relatively low confidence in their ability to sustain healthy eating habits in the face of competing demands.

Table 4: Self-Efficacy Levels among Respondents

Self-Efficacy Level Frequency Percentage (%)

High self-efficacy	105	35.0
Low self-efficacy	195	65.0

The findings suggest that although respondents possessed nutrition awareness, many lacked sufficient confidence to consistently maintain healthy dietary practices.

Perceived Barriers

Respondents identified several barriers to healthy eating. The most common barriers included lack of time, occupational stress, and the perceived high cost of healthy foods.

Table 5: Perceived Barriers to Healthy Eating

Barrier	Frequency Percentage (%)	
Lack of time	165	55.0
High cost of healthy foods	150	50.0
Occupational stress	138	46.0
Limited access to healthy foods	120	40.0

These findings indicate that environmental and occupational challenges may hinder the adoption of healthy dietary behaviours among male university staff.

Correlation Matrix

Pearson Product-Moment Correlation analysis revealed significant positive relationships between nutrition awareness and healthy eating attitudes ($r = 0.45$, $p < 0.001$), and between self-efficacy and healthy eating attitudes ($r = 0.50$, $p < 0.001$). Conversely, perceived barriers demonstrated a significant negative relationship with healthy eating attitudes ($r = -0.40$, $p < 0.001$).

Table 6: Correlation Matrix among Study Variables

Variables	r-value	p-value
Nutrition awareness and healthy eating attitudes	0.45	<0.001*
Self-efficacy and healthy eating attitudes	0.50	<0.001*
Perceived barriers and healthy eating attitudes	-0.40	<0.001*

*Significant at $p < 0.05$.

The results indicate that nutrition awareness and self-efficacy positively influenced healthy eating attitudes, whereas perceived barriers negatively affected healthy eating attitudes.

Multiple Regression Analysis

Multiple regression analysis was conducted to determine the predictors of healthy eating attitudes among respondents.

Table 7: Multiple Regression Analysis of Predictors of Healthy Eating Attitudes

Predictor Variable	B	SE	t-value	p-value
Nutrition Awareness	0.18	0.06	2.87	0.005*
Self-Efficacy	0.25	0.07	3.12	0.002*
Perceived Benefits	0.30	0.08	4.31	<0.001*
Perceived Barriers	-0.28	0.06	-4.06	<0.001*

Model Summary

$R = 0.61$

$R^2 = 0.37$

Adjusted $R^2 = 0.35$

$F = 18.42$

$p < 0.001$

The regression model explained 37% of the variation in healthy eating attitudes among male university staff. Perceived benefits, self-efficacy, nutrition awareness, and perceived barriers were significant predictors of healthy eating attitudes, with perceived barriers exerting a negative influence.

DISCUSSION

Attitudes Toward Healthy Eating

The findings of this study revealed that male university staff in Plateau State generally exhibited positive attitudes toward healthy eating. Most respondents recognized the importance of healthy diets in disease prevention and the promotion of overall well-being. Positive attitudes toward healthy eating are essential because attitudes influence food choices and individuals' willingness to adopt and sustain healthy dietary practices. The observed favourable attitudes may be attributed to increased awareness of nutrition-related diseases and the growing emphasis on healthy lifestyles. This finding is consistent with previous studies which reported that educated adults and working populations generally possess favourable attitudes toward healthy eating despite variations in actual dietary practices.

Nutrition Awareness and Healthy Eating Attitudes

The study established a significant positive relationship between nutrition awareness and healthy eating attitudes among male university staff. Respondents with higher levels of nutrition awareness tended to exhibit more favourable attitudes toward healthy eating. This finding suggests that knowledge regarding healthy diets, nutrient requirements, and the relationship between nutrition and health contributes significantly to the development of positive dietary attitudes.

The finding supports previous studies which have reported that nutrition knowledge serves as an important determinant of healthy eating behaviour. Individuals who are aware of the health benefits associated with balanced diets are more likely to appreciate and adopt healthy dietary practices. Furthermore, the finding is consistent with the Health Belief Model, which posits that individuals are more likely to engage in health-promoting behaviours when they recognize the benefits associated with such behaviours.

Self-Efficacy and Healthy Eating Attitudes

The findings demonstrated that self-efficacy was positively associated with healthy eating attitudes among male university staff. Respondents who exhibited greater confidence in their ability to make healthy food choices and maintain desirable dietary behaviours demonstrated more favourable attitudes toward healthy eating. This finding underscores the importance of personal confidence and behavioural competence in promoting healthy lifestyles. The finding is in agreement with Bandura's Social Cognitive Theory, which emphasizes the central role of self-efficacy in behavioural change. Individuals with strong beliefs in their capabilities are more likely to initiate and sustain healthy behaviours despite challenges and competing demands. Similar findings have been reported among adult populations where self-efficacy positively influenced dietary practices and adherence to healthy eating recommendations.

Perceived Barriers and Healthy Eating Attitudes

The study revealed that perceived barriers had a significant negative relationship with healthy eating attitudes. Lack of time, occupational stress, and the high cost of healthy foods emerged as major obstacles to healthy eating among respondents. These barriers may discourage individuals from translating their nutrition knowledge and positive intentions into actual healthy dietary practices.

The finding corroborates previous studies which identified time constraints, economic limitations, and environmental factors as major impediments to healthy eating among adults and working populations. The result also supports the assumptions of the Health Belief Model, which recognizes perceived barriers as one of the strongest determinants of health-related behaviours. Individuals who perceive numerous barriers are less likely to adopt and maintain healthy dietary habits.

Predictors of Healthy Eating Attitudes

Multiple regression analysis revealed that nutrition awareness, self-efficacy, perceived benefits, and perceived barriers significantly predicted healthy eating attitudes among male university staff. Self-

efficacy and perceived benefits exerted positive influences on healthy eating attitudes, whereas perceived barriers negatively predicted healthy eating attitudes. These findings indicate that healthy eating attitudes are influenced by a combination of cognitive and environmental factors.

The findings suggest that increasing nutrition awareness alone may not be sufficient to promote healthy dietary behaviours. Effective interventions should also focus on enhancing individuals' confidence in their ability to maintain healthy diets and addressing the environmental constraints that hinder healthy food choices. Therefore, comprehensive nutrition promotion programmes that combine educational and behavioural approaches are likely to produce more sustainable outcomes.

Strengths and Limitations

One of the major strengths of this study lies in its focus on male university staff, a population that has received relatively little attention in nutrition and health promotion research in Nigeria. The study also employed established theoretical frameworks, namely the Health Belief Model and Social Cognitive Theory, to explain the relationships among the study variables. Furthermore, the use of correlation and multiple regression analyses provided deeper insights into the predictors of healthy eating attitudes.

Despite these strengths, some limitations should be acknowledged. The cross-sectional design limits the establishment of causal relationships among the variables studied. In addition, the study relied on self-reported information, which may be susceptible to recall bias and social desirability bias. Furthermore, the findings may not be generalized to all university staff in Nigeria because the study was limited to selected universities in Plateau State.

Implications for Nutrition Education and Health Promotion

The findings of this study have important implications for nutrition education and workplace health promotion. The positive association between nutrition awareness and healthy eating attitudes highlights the need for continuous nutrition education programmes aimed at improving knowledge and encouraging healthy food choices among university staff.

The significant influence of self-efficacy suggests that health promotion programmes should incorporate behavioural strategies that strengthen individuals' confidence in adopting and maintaining healthy dietary habits. Such strategies may include goal setting, counselling, peer support, and self-monitoring techniques.

Moreover, interventions aimed at reducing barriers to healthy eating should be prioritized. Universities and relevant stakeholders should establish supportive food environments by improving access to affordable and nutritious foods and implementing workplace policies that encourage healthy lifestyles. Addressing these barriers may enhance the effectiveness of nutrition interventions and contribute to improved health outcomes among university personnel.

CONCLUSION

This study investigated the predictive roles of nutrition awareness, self-efficacy, and perceived barriers on healthy eating attitudes among male university staff in Plateau State, Nigeria. The findings revealed that respondents generally exhibited positive attitudes toward healthy eating. Nutrition awareness and self-efficacy demonstrated significant positive relationships with healthy eating attitudes, whereas perceived barriers showed a significant negative relationship.

Furthermore, multiple regression analysis indicated that nutrition awareness, self-efficacy, perceived benefits, and perceived barriers were significant predictors of healthy eating attitudes among the respondents. The findings suggest that healthy eating attitudes are influenced by both individual and environmental factors. While adequate nutrition awareness contributes to favourable attitudes, confidence in one's ability to maintain healthy dietary behaviours and the absence of perceived barriers are equally important in promoting healthy eating.

The study therefore concludes that improving healthy eating attitudes among male university staff requires a comprehensive approach that combines nutrition education, behavioural interventions, and supportive environmental conditions. Addressing psychosocial and structural barriers to healthy

eating is essential for promoting healthier lifestyles and reducing the burden of nutrition-related diseases among university personnel.

RECOMMENDATIONS

Based on the findings and conclusions of this study, the following recommendations are made:

Nutrition education programmes should be regularly organized for university staff to improve awareness regarding healthy eating and its role in disease prevention and health promotion.

Workplace health promotion programmes should incorporate strategies aimed at strengthening self-efficacy through counselling, goal setting, behavioural modification techniques, and peer support systems.

University authorities should create supportive food environments by ensuring the availability and accessibility of affordable and nutritious foods within campus premises.

Institutional policies should be formulated to promote work-life balance and reduce occupational stress and time constraints that hinder healthy eating behaviours among staff.

Health educators and nutrition professionals should design interventions that specifically address perceived barriers to healthy eating, particularly those related to food costs, limited time, and access to healthy food options.

Collaboration between universities and public health agencies should be encouraged to facilitate workplace wellness programmes that promote healthy lifestyles and reduce the risk of non-communicable diseases among university personnel.

Further studies employing longitudinal and experimental research designs should be conducted to establish causal relationships among nutrition awareness, self-efficacy, perceived barriers, and healthy eating attitudes.

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