

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**COLLEGE OF HEALTH SCIENCES**

**FACULTY OF ALLIED HEALTH SCIENCE**

**DEPARTMENT OF REGISTERD GENERAL NURSING**

**DIPLOMA PROGRAMMES**



**ASSESSMENT OF STUDENTS VIEW ON THE QUALITY AND QUANTITY OF FOOD SERVED THEM AND THE IMPACT IT HAS ON THEM ON CAMPUS-A STUDY AT HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM IN BEREKUM EAST MUNICIPALITY IN THE BONO REGION OF GHANA.**

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**AUGUST 2023**

**HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE,  
BEREKUM**



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**AUGUST 2023**

**DECLARATION**

We hereby declare that this submission is our own work towards the Diploma in General Nursing and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.


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## ABSTRACT

**Purpose of the study:** Therefore, the aim of this study is to assess students view on quality and quantity of food served from the kitchen and the impact it has on them on campus at HFNMTC Berekum.

**Basic design of the study:** The study adopted a cross-sectional design with triangulation (both quantitative and qualitative) approach.

**Sampling technique:** This research project utilizes simple random sampling method for selecting respondents for the study.

**Data collection tool:** The study adopted questionnaire as the data collection method.

**Results:** The survey involved 97 participants, primarily aged 18-30, with a mean age of  $25.62 \pm 4.50$  standard deviation. The majority were female (66%), reflecting the typical gender distribution in nursing programs. Level 300 students represented the highest percentage (45.2%). Most respondents were single (89.7%), and the Akan ethnic group made up 72.3% of the participants. Regarding satisfaction with food quality from the school's kitchen, 41.6% expressed dissatisfaction while 58.4% expressed satisfaction of the quality of meal served from the kitchen. Additionally, a significant majority (59.3%) found the quantity of food served inadequate in which (40.7%) found the quantity of food served to be adequate. Concerning the impact of campus food on their well-being and academics, 53.0% felt it had a negative effect on their well-being and academics while 12.2% felt it had a positive or no effect on their well-being and academics. Rice and stew were the most preferred menu items (40.4%), while Banku was the least liked (28.6%). The majority (92.9%) supported menu changes to improve taste and variety. Student's opinions on self-feeding were divergent;

33.3% expressed their concern that the school should continue to feed them while 66.7% suggested that, the school should allow them to feed themselves. Moreover, 51.0% attended the dining hall consistently due to factors like food preferences, taste, convenience, and financial constraints while 49.0% do not attend. Many students (77.1%) acknowledged challenges on issues of food served from the kitchen on campus. With dissatisfaction on meal served on campus, 46.8% bought food from outside, 25.5% went to bed without eating, 21.3% relied on personal provisions, and 6.4% lodged complaints.

**Conclusions:** The findings from this study clearly indicate the quality and quantity of meal served from the school's kitchen did not meet students' expectations. This information could play a pivotal role in effectively planning and implementing measures to amend the areas students pointed out in the study to match their satisfactory level.

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To you all, we say ‘thank you’ and we wish you all the best in your endeavors; may others show you as much care and help as you showed us

## **DEDICATION**

We dedicate this research study to our beloved family (father, mother, brothers and sisters)

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Background of the study**

Quality of food has been defined by Bale and Trinas (2019) as the overall acceptability of food and its production and preparation standards. Therefore, the quality of food is determined by factors such as palatability, ingredients, and presentation. Quantity of food is defined by O'Brien and Blanchard (2020) as the volume of food available and the number of servings provided. This study concluded that, quantity of food is vital to ensure adequate food consumption, nutrition, and satisfaction among students.

Food service may be regarded as the phase of food flow mainly concerned with delivery and presentation of the food to the customer after completion of food production. In some situations, food service may include an element of transportation where there is separation of the food service facilities from food production. A healthy diet is an indispensable component to good health and can help stem various adverse health conditions (Willett, 2019). However, at the very present study in Ghana, education administrators place less emphasis on the issue about healthy diet at higher education institutions. The introduction of individualized dietary feedback in the present study resulted in a reduction in the number of calories and fat purchased by college undergraduates eating in university dining establishments (Normand & Osborne, 2018). In better improving students' food intake, we need a good understanding on what kinds of food they appreciate and what factors influence their choices. Therefore, schools are able to provide better services. For example, culture difference is a significant contributor to the diverse food options.

The importance of food in understanding human culture lies precisely in its infinite variability. People having different cultures share diverse sets of food variables (Chang,

2020). Furthermore, different types of food choices imply other important meanings. Observing the types and patterns of foods people consume is the best approach to grasp the real meaning of all sorts of culture (Kittler & Sucher, 2021; Schau & Gilly, 2020). Of course, gender is characterized as one of the most influential variables to the food choices of students (Schiffman & Kanuk, 2019). A case study in the Erskine College Cafeteria demonstrates that gender difference will feature a different consumer behavior in terms of food consumption (Boyce, Henry, Shrivastava and Tian, 2022). According to a review by El Zein et al.(2019), the study found out that, of the participating students, 19% were food-insecure, and an additional 25.3% were at risk of food insecurity. Therefore, perceptions regarding the quality and quantity of food served at the dining hall have become critical. Similarly, a study by Rathore and Manigandan (2019) on Indian university students revealed that students' satisfaction with the dining hall services was positively related to the food quality, hygiene, and variety of food served. Conversely, students' dissatisfaction with the dining hall services resulted from overcrowding, scarcity of healthy options, and long waiting times.

The study by Rathore and Manigandan (2019) emphasizes the critical role of the dining hall services' quality in promoting students' well-being and satisfaction on campus. Therefore, universities and colleges must not overlook this aspect of student life and prioritize the provision of high-quality dining hall services.

Consequently, unlike in university cafeterias or other commercial service sectors or where customers pay the whole cost of meals and have good food-service. The food-service offered in most public colleges in Ghana is subsidized e.g. the teacher training colleges where they used part of their allowance to cater for the food cost unlike the nursing trainees. All students at the college premises are required to eat in the dining halls, where a variety of meals are served at various mealtimes as part of the boarding school food service. Smith and Brown's (2017) research highlights that food vendors and self-storage of food are prevalent sources of

meals among college students besides dining halls. However, investing in these options can also cause financial burden on students who are already dealing with the cost of education.

Studies conducted worldwide have shown that college students value the quality of food, particularly the variety of food and healthy options, and the quantity of food that the food service provides. A study conducted in China by Huang et al. (2020) found that students perceive campus food services as satisfactory and have relatively high preference for variety of food in the campus cafeterias. In addition, a study by Hajer et al. (2020) in Yemen revealed that students were satisfied with the prices of the food, but were dissatisfied with the quality and quantity of food, as well as the cleanliness of the dining locations. Similarly, a study of university students in Iran by Sekhavat et al. (2019) indicated that students were satisfied with the variety of food available in the dining hall, the atmosphere of the dining hall, and the quality of the food, but they were dissatisfied with the speed of service in the dining hall. On a worldwide scale, various studies have reported that student dissatisfaction with the food provided by the food service can lead to poorer overall health outcomes, such as increased weight gain and lower overall academic performance. In response to this, various food service establishments have aimed to optimize their food service in order to improve the quality, variety, and quantity of the food they provide, as well as to ensure that students have healthier and more nutritious options. Thus, providing better quality and quantity of food in school canteens is an essential element in providing a positive school environment and ensuring the health and well-being of students. The World Health Organization (WHO) conducted a study on meal service in Asian schools which revealed that school children in this region have reported poor satisfaction on the food quality and quantity of food offered in school canteens (Go, Chande, & Dessalegn, 2016). It also highlighted that food safety and hygiene concerns were an active issue in many school canteens, making it important for food service establishments to adhere to safety and health regulations.

In Africa, a study focused on school meal services in Nigerian secondary schools and found that most of the schools surveyed did not provide adequate quantity of food and that often times, the quality of the food served at the school canteens was not satisfactory (Yerima et al., 2018). Moreover, it identified various factors, such as limited access to markets and inadequate cooking facilities, that led to the poor quality and quantity of food served.

Additionally, a study conducted in Ghana reported that students generally had a low satisfaction level with the quantity, quality, hygiene, and timeliness of the food served in school canteens (Ntiamoah et al., 2019). It also highlighted that inadequate supervision of cooking staff and cleanliness of the kitchen environment were some of the factors that lead to the poor quality and quantity of food served in schools. It is well-documented that a poor diet is one of the major determinants of an increased risk of malnutrition from underweight to obesity in school-aged children (NCD-RisC Height and body-mass index trajectories, 2020). College students are a recognized risk group for eating pathologies. Previous studies suggest that the transition to college frequently implies changes in eating habits. The individuals tend to move from patterns rooted within the family to more autonomous food choices and, therefore, new eating habits. Specifically, these times are typically marked by lack of food variety, skipping meals, intake of high caloric and high-fat food between meals, and food choices driven mostly by the taste of food and the pleasure of eating (Sogari, Velez-Argumedo, Gómez & Mora, 2018). Due to the communal feeding of numerous students who demand special care and attention, college schools stand out among all institutional catering services and continue to serve as students' second homes. Surprisingly, actual data on the quality of meals provided to college students and their level of satisfaction have not been sufficiently examined. Instead, mid-day meal programs in junior high and primary schools have received more attention from studies on school food-service satisfaction, notably from industrialized nations (Ali & Akbar, 2015; Maietta, & Gorgitano, 2016). Additionally,

research on food concerns in college schools has only examined nutritional intake and the state of malnutrition in boarding and non-boarding students (Luo, Shi, Zhang, Liu, Rozelle, & Sharbono, 2009). Studies on food-related issues has also been subjected to boarding secondary schools in Ghana not in any way to talk about colleges, in the case of developing nations, tended to concentrate more on food hygiene and safety (Akabanda, Hlortsi & Owusu-Kwarteng, 2017), notwithstanding it appears that the degree to which these boarding secondary students are satisfied with dining hall meals has also been disregarded. Studies have also shown that student dissatisfaction with the food provided by the food service can lead to poorer overall health outcomes among college students, such as increased weight gain and lower overall academic performance. In order to address this issue, HFNMTC Berekum should strive to optimize its food service in order to improve the quality, variety, and quantity of food that is served. Additionally, it should ensure that it is providing students with healthier and more nutritious options in order to meet the needs of its student population. Therefore, as no current study has been postulated to assess the satisfaction of college students in HFNMTC Berekum on the quality and quantity of food received from the kitchen during meal time. This necessitate for a study to be conducted to dive into the issue at hand and by so doing fostering the growth and interest of the students and the school at large.

### **1.1 Problem statement**

School should be considered one of the key environments where healthy eating behaviours could be established, and at the same time providing them with good nutritious and well palatable diet (Micha et al., 2018; O'Halloran, Eksteen, Gebremariam & Alston, 2020). Despite the growing body of evidence from Western countries, school food environments are quite different across the world in general, and particularly in Ghana, hence results cannot be directly extrapolated. The quality and quantity of food served in college schools can have a

significant impact on students' academic performance, health, and overall well-being. However, little is known about the perceptions of students regarding the quality and quantity of food served from the kitchen and how it affects their health and academic performance in college schools in Ghana, particularly at HFNMTC Berekum.

From a worldwide perspective, research has shown that the quality and quantity of food served in college schools can have a significant impact on students' academic performance, health, and overall well-being. A study by Cheng et al. (2019) found that students who consume a balanced diet with sufficient nutrients have better academic performance than those who do not. In sub-Saharan Africa, studies have shown that food insecurity and poor nutrition can lead to lower academic performance and poor health outcomes among students (Mulugeta et al., 2019). However, there is limited research on the perceptions of college school students regarding the quality and quantity of food served in sub-Saharan Africa specifically.

In Ghana, there is a need for research to understand the perceptions of college school students regarding the quality and quantity of food served from the kitchen and how it impacts their academic performance. A study by Thapa et al. (2021) found that college students in India were dissatisfied with the quality and variety of food served in their dining halls, which negatively affected their health, academic performance and overall well-being. To the best of our knowledge, very limited work has been conducted in Africa to investigate food types including cooked and pre-packaged foods and their quality in school canteens. Moreover, an assessment of the school food environment would help us to understand and identify the quality of food and beverages available and their association with poor health. In turn, a better understanding of the food and beverage available within schools may have a broader impact on eating behaviours and future disease risk (Pineda, Bascunan & Sassi, 2021). In order to address this gap in knowledge and since no current study has been conducted at

HFNMTC Berekum to assess student views on the quality and quantity of food served therefore, this study aims to assess students' views on the quality and quantity of food served at HFNMTC Berekum and how it impacts their academic performance and their overall well-being on campus.

### **1.2 General objectives:**

To assess students view on quality and quantity of food served from the kitchen and the impact it has on them on campus at HFNMTC Berekum.

### **1.3 Specific Objectives**

Here are three specific objectives from this research topic:

1. To assess the views of Holy Family College Berekum students on the quality of food served from the kitchen.
2. To assess the views of Holy Family College Berekum students on the quantity of food served from the kitchen.
3. To analyze the impact of the quality and quantity of food served from the kitchen on student performance, behavior, and overall health.

### **1.4 Operational Definition of Terms**

This section of the chapter expresses the under listed words as they are conceived in the literature and how they (words) are applied in the context of this report.

1. Food service: Refers to the act of receiving food from a certain source.
2. Quality attributes: Refers to the characteristics that come together to define quality

3. Students' perceptions/views: Refers to student becoming aware of something via their senses or judgment that is not founded on proof or certainty.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

Globally various studies have examined customer satisfaction levels with on-campus food-service operations, including those provided by contracted companies, restricted food operations, and those offering multiple locations and options on-site. These studies explored various aspects such as food quality, service quality, atmosphere, cleanliness, location, food and beverage options, convenience, price, and value to determine satisfaction levels (Tae et al., 2018; Vignali et al., 2018). According to Tae et al. (2018), the quality of food and service provided by a food-service operation significantly influences customer satisfaction levels. Various factors, including taste, appearance, and freshness of food, courteousness and efficiency of the staff, and the overall ambiance of the place can affect customers' satisfaction levels. However, customers' expectations regarding the quality and characteristics of food-service operations can vary based on their demographic and psychographic attributes (Vignali et al., 2018). Moreover, the growing health consciousness among customers increases the demand for healthy food options, which should be considered in food-service operations (Zaccaria et al., 2019). Therefore, it is essential to understand the factors that affect customer satisfaction levels and preferences for different food options offered by on-campus food-service operations to provide quality services and increase customer loyalty (Tae et al., 2018).

#### **2.1 Views on the quality of food.**

A study conducted by Zhu (2022) on the topic "Effects of robot restaurants' food quality, service quality and high-tech atmosphere perception on customers' behavioral intentions". Based on research data from 289 respondents comprising undergraduates, postgraduates and

non-students in China, the theoretical model is tested via the partial least squares technique. The findings revealed that, food quality perception directly affects regular patronage intention, but it has no significant influence on experience intention.

A study by Lee (2019), this study aimed to compare student consumption of school meals by school level, to identify the influencing factors of school meal consumption, and to assess improvement needs of school food service among students. A total of 1,441 elementary, middle, and high school students attending 58 schools in Gyeonggi-do, South Korea participated in the survey in 2015. Approximately 76.1% consumed almost all or all of the meals served. The study concluded that, the provision of foods that taste good and reflecting student opinions on menus were the most important factors for increasing school meal consumption. To increase consumption of school meals, food service staff should provide students with quality meals and engage students in school food service. Nutrition education that emphasizes healthy eating behaviors and cafeteria environment modification that applies strategies based on behavioral economics can encourage students to consume more school meals. .

Furthermore, a study by Tam, Yassa, Parker, O'Connor and Allman-Farinelli (2017) have stated various aspects for encouraging customers to eat healthy. Institutions have a responsibility to provide an environment that makes it easier for students to eat healthier food. Previous research indicates that many institutions food environments are filled with energy-dense nutrient-poor food that may be heavily promoted (Roy, Hebden, Kelly, De Gois, Ferrone & Samrout 2016). Moreover, it is the operators' role to provide a variety of products in their menus that will give its customers more options to choose from.

The study by Koenigstorfer et al. (2021) conducted in United States on 624 Students in University of Pennsylvania using an online survey to assess the students views on the quality

of food served in the school dining hall. The study found that, students were generally satisfied with the quality of food served in their dining halls. However, they were dissatisfied with the variety of food offered and the nutritional value of the meals. The students also expressed a desire for more healthy options and more diverse choices. In conclusion, the study highlights the importance of providing a variety of healthy food options in college dining halls to meet the needs and preferences of students.

A study conducted by Rizk et al (2023), with a study participant of 547 participants (197 from Lebanon and 350 from Germany) highlighted that, the high prevalence of food insecurity reported in their study is alarming, particularly among Lebanese students; German students had better diet quality and higher physical activity but worse adherence to the Mediterranean diet. Moreover, food insecurity was also associated with worse sleep and stress.

A study by Shi, Davies and Allman-Farinelli (2021), aimed to examine the association between food insecurity and dietary outcomes among university students. The study found out that, poorer dietary outcomes were found in university students with food insecurity compared with food-secure students, but statistical significance was only observed in a small number of studies thus prevalence of food insecurity among university students ranged from 21% to 82% across studies.

A study by Abbey, Brown and Karpinski (2022), who aimed to determine the prevalence of food Insecurity in the General College Population and Student-Athlete. Their findings revealed, food insecurity is estimated to be more prevalent in college students than in the general population, although it ranges vary widely halting student's satisfaction with the food-services on campus.

A study conducted by Abdullah, Muhammad, Ismail, Ramly and Gani (2018) on the topic. “The Influence of Food Sensory Quality on Culinaricians’ Food Preparation”. Therefore, this proposed study empirically examines to what extent the food sensory quality attributes, taste, smell and appearance, affecting culinaricians’ food preparation and consumption. In other words, they are concern and aware of food sensory quality in their daily food preparation and consumption. A descriptive research design using a quantitative approach was applied. Culinaricians with age ranges between 18 to 50 years old, who have a culinary educational background, experience and directly involved in the food sectors within the Kuala Lumpur and Selangor area were chosen as a sample. The result revealed that the quality of taste, appearance, and smell plays an important role in their daily food preparation and consumption. Hence, research at this foundational level unveil that the culinaricians influence on good eating behavior was through food sensory quality.

## **2.2 Views on the quantity of food**

A study conducted by Johnson et al. (2022), at a university campus in Chicago, Illinois using random sampling with the aimed to assess student views on the quantity of food served at the dining hall on a university campus. They collected data from a sample of 300 undergraduate students using random sampling techniques. The findings revealed that 70% of the students felt that the portion sizes at the dining hall were insufficient. Furthermore, 55% of the participants reported feeling hungry after a meal, suggesting that the current quantity of food served may not meet students' nutritional needs. Based on the study conducted by Johnson et al. (2022), it is evident that a significant proportion of undergraduate students perceive the quantity of food served at the university dining hall to be inadequate. These findings highlight the need for the dining hall administration to reassess portion sizes and ensure that students' nutritional requirements are adequately met.

A study by Lee (2019), who aimed to compare student consumption of school meals by school level, to identify the influencing factors of school meal consumption, and to assess improvement needs of school food service among students. A total of 1,441 elementary, middle, and high school students attending 58 schools in Gyeonggi-do, South Korea participated in the survey in 2015. Approximately 58% of the students perceived the portion sizes of school meals as appropriate and were satisfied.

In a study by Garcia and Martinez (2023), who looked at how students felt about the amount of food served in the dining hall of a community college in Houston, Texas. 150 students made up the sample, which was chosen using convenience sampling used by the researchers. The results showed that 50% of the participants felt the portion sizes were insufficient and indicated their unhappiness with them. In addition, 40% of the students said they still felt hungry hours after eating in the dining hall. Their findings indicated that, a sizeable percentage of community college students believe the amount of food served in the dining hall is insufficient. These results highlight the need of addressing portion sizes and making sure that the dining hall offers enough food to meet the nutritional needs of the students.

A recent study by Thompson et al. (2022), who examined student views on the quantity of food served at the dining hall of a boarding school in New York City, New York. The researchers used purposive sampling, and the sample consisted of 100 boarding school students. The findings indicated that 75% of the students perceived the portion sizes as inadequate, with 65% reporting feeling hungry after consuming meals from the dining hall. Furthermore, the study revealed that 80% of the students expressed the need for increased quantity of food. The study highlights that a significant majority of boarding school students believe that the quantity of food served at the dining hall is insufficient. These results highlight the need for increasing portion sizes and make sure that, the boarding school dining hall meets the students' nutritional needs.

A study by Lopez (2020), on the topic “Does Quantity Matter in Food Satisfaction”. Their findings posit that, the satisfaction someone experiences eating a particular food can be influenced by using a combination of cognitive, sensory, and physiological signals. Multisensory imagery beyond size can lead people to choose foods that appear satisfying and abundant in their own way. They further added that, individual preferences and experiences can vary widely when it comes to food quantity satisfaction.

Another study by Chandon (2016), on the topic “ the reason we buy (and eat) too much food. This study findings revealed that, our perception of food satisfaction is influenced by hedonic adaptation. The first bite of a food item is usually the most pleasurable, and subsequent bites provide less pleasure. Every additional bite, while still enjoyable, provides less pleasure than the preceding one. This is a universal phenomenon known as hedonic adaptation. Additionally, the last bite of a food item can greatly influence our overall satisfaction with the consumption experience. This could explain why people may end up with portions that are too large, as they focus on factors such as hunger and value for money rather than the pure pleasure of the eating experience.

In a study conducted by Lee and Kim (2023), the researchers aimed to assess high school students' views on the quantity of food served at the dining hall of a high school in Los Angeles, California. The sample consisted of 200 students, and stratified random sampling was employed to ensure representation across different grade levels. The results showed that 30% of the students felt hungry after meals, and 45% of the students thought the portion sizes were inadequate. Furthermore, the study discovered that 60% of the students thought the dining hall should serve more food. The researchers draw attention to the fact that a sizable percentage of high school pupils think the amount of food served in the dining hall is inadequate. These results highlight the need of listening to student complaints and making sure that the dining hall adequately satisfies high school students' nutritional needs.

### **2.3 The impact of the quality and quantity on consumers**

A study by Serhan and Serhan (2019) on the topic “The Impact of Food Service Attributes on Customer Satisfaction in a Rural University Campus Environment”. The purpose of this study was to determine different food service attributes that have an impact on customers' overall satisfaction at a rural university cafeteria. Over 5 weeks, 676 cafeteria users, including academics, staff, and students, were selected through convenience sampling. They completed an anonymous-designed survey with closed questions (n = 29) assessing quality of food and beverages, quality of service and setting, and satisfaction with food service attributes. In order to measure the existence and degree of significant relationships between different research variables, Pearson correlation coefficients were employed to analyse the data. Means of scores and frequencies were calculated. Results indicated that customers' satisfaction with different service attributes was above average. All service attributes had a significant and positive effect on the overall satisfaction of customers behaviour. Since most customers (62.9%) would like to continue eating at the cafeteria, the most common improvements suggested to the university management included among others, improving diet quality by offering more nutritious food. Gaining insight into the different food service attributes can enable the university management to meet the needs and expectations of its academics, staff, and students in order to increase their confidence in the food provided.

A study conducted by Joung, Choi and Wang (2016), who investigated the effects of perceived quality and perceived value of campus food-service on customer satisfaction. A total of 346 participants were surveyed at a large, public university in the Southwest United States. The relationships among three latent constructs (perceived quality, perceived value, and customer satisfaction) were measured using structural equation modeling. The findings showed that both perceived quality and perceived value had significant effects on customer satisfaction, therefore, quality food always draws people back and vice versa.

A study conducted by Smith, White-Mcneil and Ali (2020), the goal of this study was to find out how the students at a historically black college and university (HBCU) felt about the on-campus food-service operation and how that affected their pleasure and frequency of meals, as some students have already stopped using the dining services. A survey of 685 students was conducted to collect data. Partial least squares based structural equation modeling is used to test the proposed structural model with SmartPLS 3.0. Results confirm that quality of food, ambience, value for money, food and beverage options and service quality have a positively significant impact on students' overall satisfaction with the on-campus food-service operation and dining frequency. As such, all the hypotheses are supported. These findings indicate that on-campus food-service operators should focus on quality of food, ambience, value for money, food and beverage options and service quality to achieve student satisfaction. This in turn could positively impact the institution's reputation, student retention and the marketability of the institution to future students.

Previous studies showed the significant role of food and beverage quality in determining student satisfaction. Petrescu, Vermeir and Petrescu-Mag (2019), their findings suggest that investigated consumers most frequently use freshness, taste, and appearance to evaluate food quality. The use frequency of food quality cues related to health is primarily influenced by the attention paid to food quality. Therefore, if the most relevant cues of food healthiness such as ingredients, nutrition facts, and additives are halted as well as food environmental cues such packaging, food origin, and production type these leads to bad influence on the consumer. Also Imram (2019) identified the various attributes of food and beverage quality as aroma, flavor, texture, temperature, shape, color, gloss, freshness, taste, smell, appearance and consistency, therefore if all this are not in their normal state, these could lead negative impact on the individual who will consume such foods. He also added that, appearance can have a halo effect which modifies subsequent flavour perception and food acceptability. In

assessing customer satisfaction levels with various attributes of food and beverage quality, Yen-Soon et al. (2020) surveyed 276 customers at a food court at Oklahoma State University. They concluded that food quality overall was the most important attribute of customer satisfaction while generating positive word-of-mouth referrals of the food-service providers. Ng (2018) proposed that overall food quality attributes such as taste, freshness and appearance play an integral role in attaining or surpassing customers' satisfaction and their intent to return than other factors such as convenience, price, cleanliness and value. In another study, Andaleeb and Caskey (2017) found that students at Pennsylvania State University perceived food quality as one of the three most crucial elements that explained their satisfaction with the food-service on campus. Likewise, Kim et al. (2019) used the DINESERV measuring scale to measure customers' perception of a university dining facility. Findings of the study showed that food quality was the most important predictor of satisfaction followed by service quality, price/value, convenience and atmosphere.

More recently, Smith, White-McNeil and Ali (2020), surveyed 685 students to determine the students' perceptions of an on-campus food-service operation at an identified historically black college and university (HBCU) and its effect on their satisfaction and dining frequency. A Results confirm that quality of food, ambience, value for money, food and beverage options and service quality have a positively significant impact on students' overall satisfaction with the on-campus food-service operation and dining frequency.

Recent studies suggest that college students have diverse dietary needs and often seek healthy and sustainable food options. For example, Karaali and Yildirim (2018) found that students actively sought out plant-based protein and gluten-free options. The research also showed that students appreciated dining halls that provided nutritional information, composting facilities, and reusable containers. In another study, Ross and Kirkwood (2019) found that a majority of students (81%) preferred dining locations that sourced food locally. The same

study also discovered a positive correlation between university-sponsored food initiatives and a sense of community on campuses.

A study conducted by Lei, Zhu and Liu (2021), the aim, of the study was to analyses on Quantified Self-Behavior of Customers in Food Consumption under the Perspective of Social Networks. In view of the above understanding, this study uses experimental design and field survey to obtain data, uses Heckman two-step method and PLS path modeling method to analyze the impact of consumers' quantified self-behavior on their health food consumption, and discusses the moderating role of social networks based on the perspective of complex network. The results show that (1) consumers' health awareness can promote their choice of quantified self-behavior, (2) consumers' quantified self-behavior is helpful to promote their purchase intention and purchase scale of healthy food, and (3) social networks play a positive moderating role in consumers' quantified self-influence on their healthy food consumption. Both emotional networks and instrumental networks have significant moderating effect, but the formal is stronger. This article not only considers the relationship between food consumption behavior and social network but also the enhances literature based on the theory of information perception and the risk perception theory.

In conclusion, it was evident in the study that all these factors were influential factors of positive comments about student's satisfaction on food-services at the dining hall or the canteen. Therefore, based on the evidence provided in the literature there is relationship between the quality of food and beverage, customers' overall satisfaction and subsequent behaviors.

## **CHAPTER THREE**

### **MATERIALS AND METHODS**

#### **3.0 Introduction**

This chapter talks about, the study area and study population, study design, sampling techniques, data collection method and instrument, data analysis techniques, ethical consideration, and the limitations of the study.

#### **3.2 Study Area**

The study was conducted at the HFNMTC Berekum campus in the Berekum East Municipality of Ghana. The institution was one of the most authentic nursing training schools in Ghana, yielding professional nurses and midwives to the state every year. The institution also ran accessory programs such as post basic midwifery. The total population of the school consisted of 781 with the following demarcations; 703 students, 25 teaching staff, 52 non-teaching staff, and 1 seconded staff. The school ran two major allied health diploma programs, which were nursing and midwifery, affiliated with Kwame Nkrumah University of Science and Technology (KNUST). The institution was also governed by the Ministry of Health and regulated by the Nursing and Midwifery Council (NMC) in Ghana.

#### **3.3 Study Population**

The research population consisted of students enrolled in the nursing programs offered by the HFNMTC Berekum. The population from which the participants would be targeted comprises of the school student body. This includes students in the Registered General Nursing (Rgn), Registered Midwifery (Rm), and Post Basic Midwifery (Pb) programs. The total number of students in each program is as follows: Rgn: 335 (60 females and 36 males in Rgn 23, 65 females and 29 males in Rgn 24, and 114 females and 31 males in Rgn 25); Rm:

335 (94 students in Rm 18, 97 students in Rm 19, and 144 students in Rm 20); Pb: 33 (23 students in Post Basic 5 and 10 students in Post Basic 6). Therefore, the total research population for the study was 703 students, consisting of 335 Rgn students, 335 Rm students, and 33 Pb students.

### **3.4 Study Design**

The study used a mixed-methods design, incorporating both quantitative and qualitative data collection methods. Surveys (questionnaires) were employed to gather data on student views of the quality and quantity of food served from the kitchen, as well as the impact it had on them. Additionally, open-ended questions were included in the questionnaire to gain further insight into the experiences of students.

### **3.5 Sampling Technique and Sample Size**

The sampling technique used was a simple random sampling technique. It was the most basic of the probability sampling techniques. It was a probability sampling technique in which the required number of sampling units were selected at random from the population. It was chosen because each population element had an equal chance of being selected for the sample. Thus, in this method, each item had the same probability of being included in the sample. A sample size of 100 students was selected from the study population.

### **3.6 Data Collection Method and Instrument**

The data collection methods included surveys. The survey instrument was a questionnaire designed to collect data on student views of the quality and quantity of food served from the kitchen, as well as the impact it had on them. Likert's five-point scale was used as the rating system, with the five scales representing "strongly agree," "agree," "neutral," "disagree," and

"strongly disagree" corresponding to 5, 4, 3, 2, and 1 points, respectively. Higher points indicated higher capability or involvement in the specified dimension.

The questionnaire consisted of four categories: A, B, C, and D. Category A included demographic data, category B encompassed the views of Holy Family College Berekum students on the quality of food served from the kitchen, category C covered the views of Holy Family College Berekum students on the quantity of food served from the kitchen, and category D explored the impact of the quality and quantity of the food served on student performance, behavior, and overall health.

Members were recruited using the lottery method, where folded papers labeled "yes" and "no" were placed in a container, and students were asked to pick one in a queue. Students who were fortunate to pick "yes" were selected for the study.

### **3.7 Data Analysis Techniques**

Data was entered into Microsoft Excel 2019 edition and imported into STATA version 17 for analysis. The collected data was analyzed using descriptive statistics, such as means and standard deviations for the survey data, and thematic analysis for the open-ended questions. The results were presented in tables and graphs.

### **3.8 Ethical Consideration**

Ethical considerations were taken into account by ensuring that all participants provided informed consent before participating in the study. Respondents were made aware of their rights to withdraw from the study at any time as they wished. They were assured that no harm, whether physical, psychological, or emotional, would be inflicted upon them. Additionally, they were informed that no material benefits would be given to them for taking part in the study. Furthermore, all data collected was kept confidential and anonymous.

### **3.9 Limitations of the Study**

The study's limitations encompassed the risk of self-report bias in the survey data and the susceptibility to external factors that could influence the study's outcomes. Additionally, the potential applicability of the study's findings to different campuses or contexts was uncertain. Achieving a 100% response rate with the distributed questionnaire proved unattainable. Some students exhibited reluctance during the recruitment phase of the study. Moreover, the search for secondary data on the internet presented its own set of challenges. Financial constraints also imposed restrictions on the researchers, preventing the recruitment of a larger number of participants for the study.

## CHAPTER FOUR

### DATA ANALYSIS AND RESULTS

#### 4.0 Introduction

This chapter entails the analysis of data collected from the field of study and the resulting outcomes. The reporting format encompasses written, tabular, and graphical formats. Out of 100 questionnaires distributed, absolutely 97% of the respondents returned the answered questionnaires but they were certain questions left unanswered by the respondents, on an average 95 respondents completely returned answered questionnaires indicating a non-response rate of 5%. Thus, this study's representation was varying from 93% to 97% based on the number of respondents who participated. The primary components that emerged from these results include demographical characteristics, food quality and quantity satisfaction and the impact of food quality and quantity on students' performance and general well-being, providing frequencies and proportions for specific research objectives. Out of the total 95 students who participated in the study, the majority were females (66%). Notably, these students exhibited dissatisfaction with the quality and quantity of food served from the school kitchen. Furthermore, students voiced their thoughts on the harmful and good effects of food on them, with the majority calling for adjustments to the school's dietary services.

#### 4.1.0 Demographic Information of respondents

##### 4.1.1 Ages of respondents.

The majority of the respondents, 88.4% fall within the age range of 18-30 years. The least age category was 31-45 years (11.6%). The mean age of respondents was  $25.62 \pm 4.50$  standard deviation. This suggests that, respondents are college students with most in their early twenties. The high percentage within this age range could be attributed to the fact that

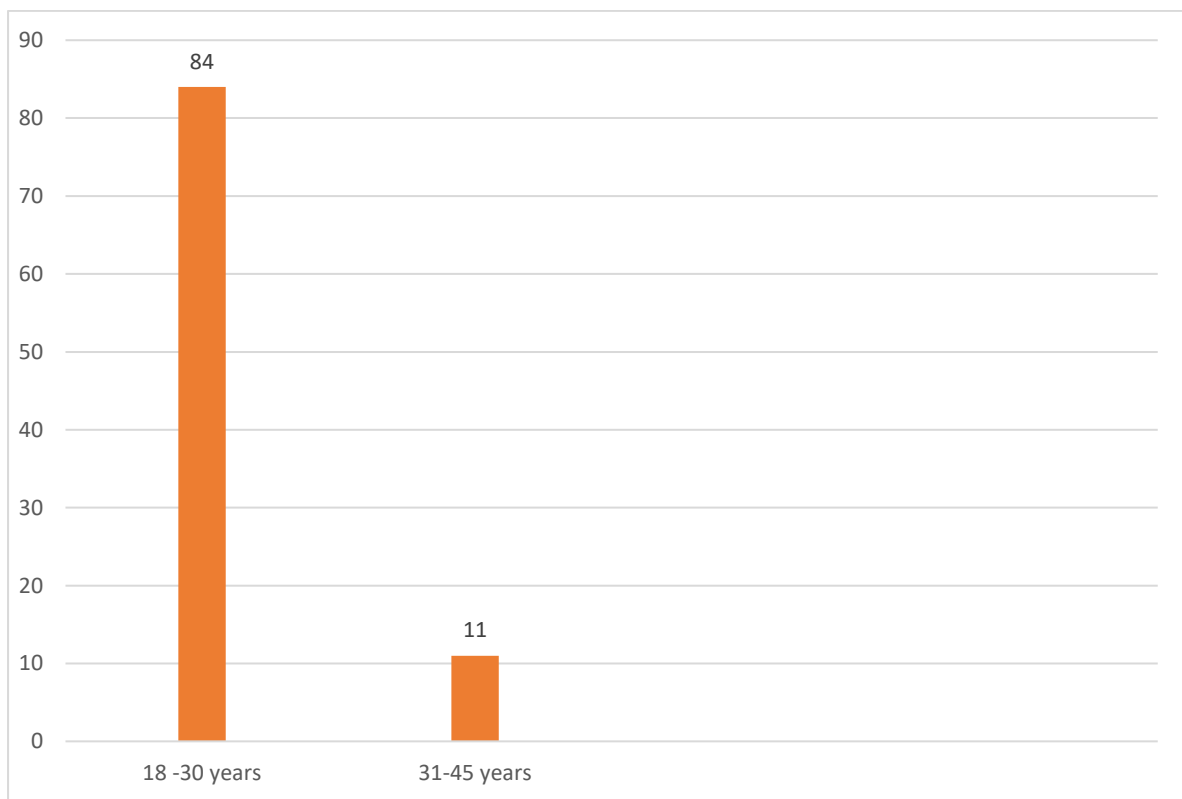
the survey was conducted among college students. The distribution and graphical representation of the ages had been shown in table 4.1 and figure 4.1 below respectively.

**Table 4.1 Ages of respondents.**

<b>Ages</b>	<b>Frequency</b>	<b>Percentages (%)</b>
18-30	84	88.4%
31-45	11	11.6%
<b>Total</b>	<b>95</b>	<b>100%</b>

Field study, (2023)

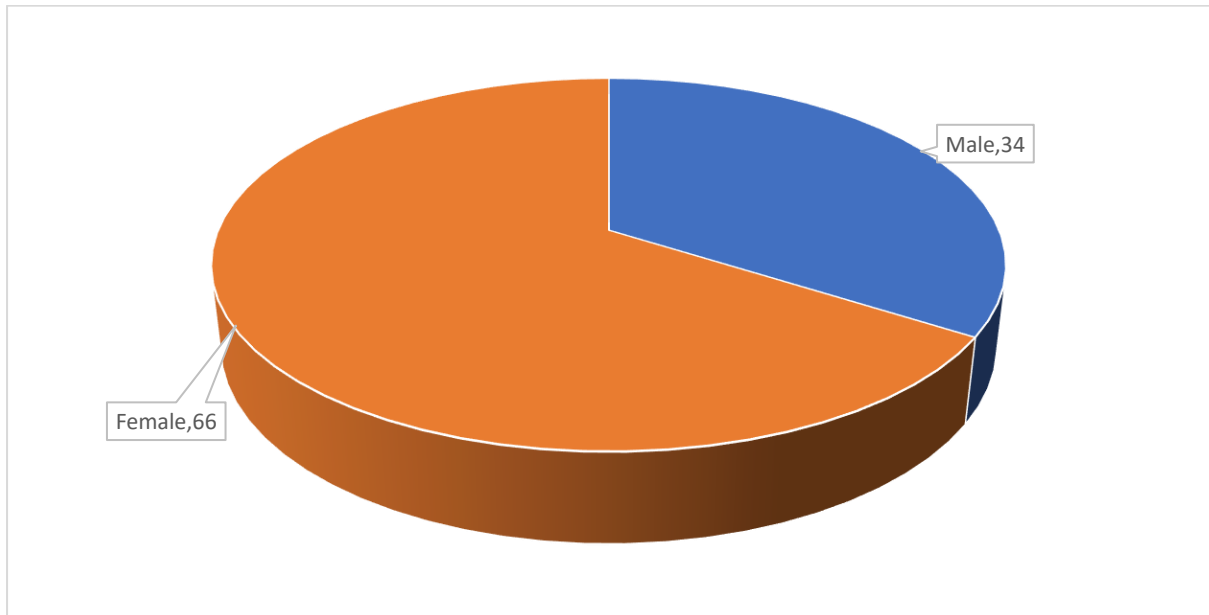
**Figure 4.1: Ages of respondents.**



### 4.1.2 Gender of respondents

From figure 4.2 below, it suggests that, majority of the students are females 66%, while a smaller percentage comprised of males 34%.

**Figure 4.2 Gender of respondents**



### 4.1.3 Educational level of respondents

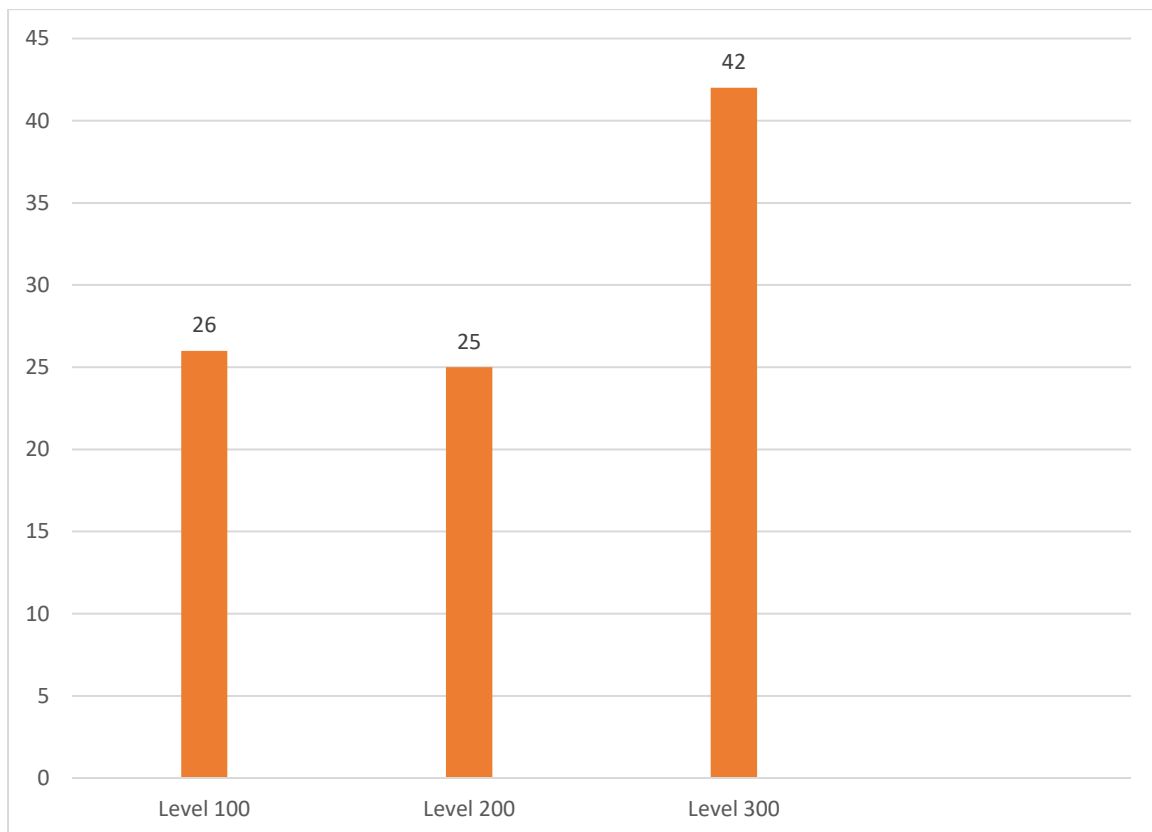
This distribution suggests that there is a relatively even distribution of respondents across the different school levels. However, Level 300 has the highest percentage of respondents at 45.2%, followed by Level 100 at 28% and Level 200 being the least at 26.9%. It is worth noting that Level 200 and 100 has the lowest percentage of respondents, indicating their withdrawal and denial ability to participate in this study compared to the third years. The distribution and graphical representation of the educational level of respondents had been shown in table 4.2 and figure 4.3 below respectively.

**Table 4.2 Educational level of respondents**

<b>Educational level</b>	<b>Frequency</b>	<b>Percentage</b>
Level 100	26	28.0%
Level 200	25	26.9%
Level 300	42	45.2%
<b>Total</b>	<b>93</b>	<b>100%</b>

Field study, (2023)

**Figure 4.3 Educational level of respondents**

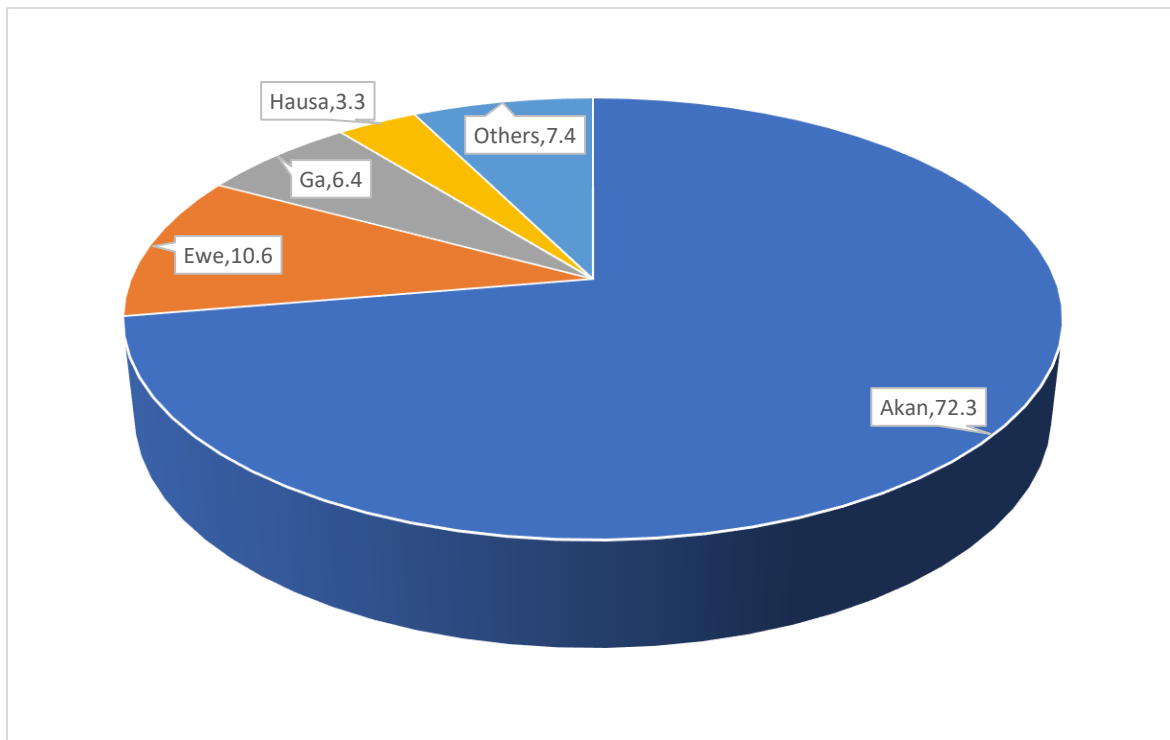


#### **4.1.4 Ethnicity of respondents**

The data indicates that, majority of respondents speak Akan, which accounts for 72.3% of the student population. Ewe is the second most spoke language, representing 10.6% of the

students, while Ga and Hausa are less commonly spoken, at 6.4% and 3.3%, respectively. Finally, there is another 7.4% of students who speak other languages not listed in figure 4.4 below.

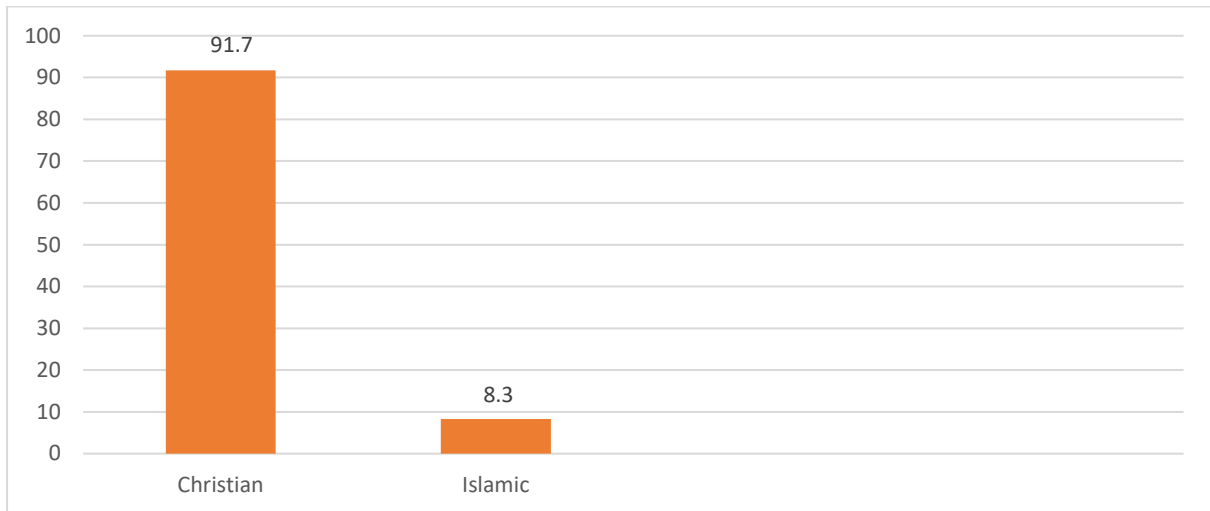
**Figure 4.4 Ethnicity of respondents**



#### **4.1.5 Religion of respondents**

The Figure 4.5 below depicts that, the majority of respondents are identify as Christian, making up a significant portion at 91.7%. On the other hand, the Islamic faith is represented by 8.3% of the student population. Neither traditionalist nor any other religious affiliates participated in this study.

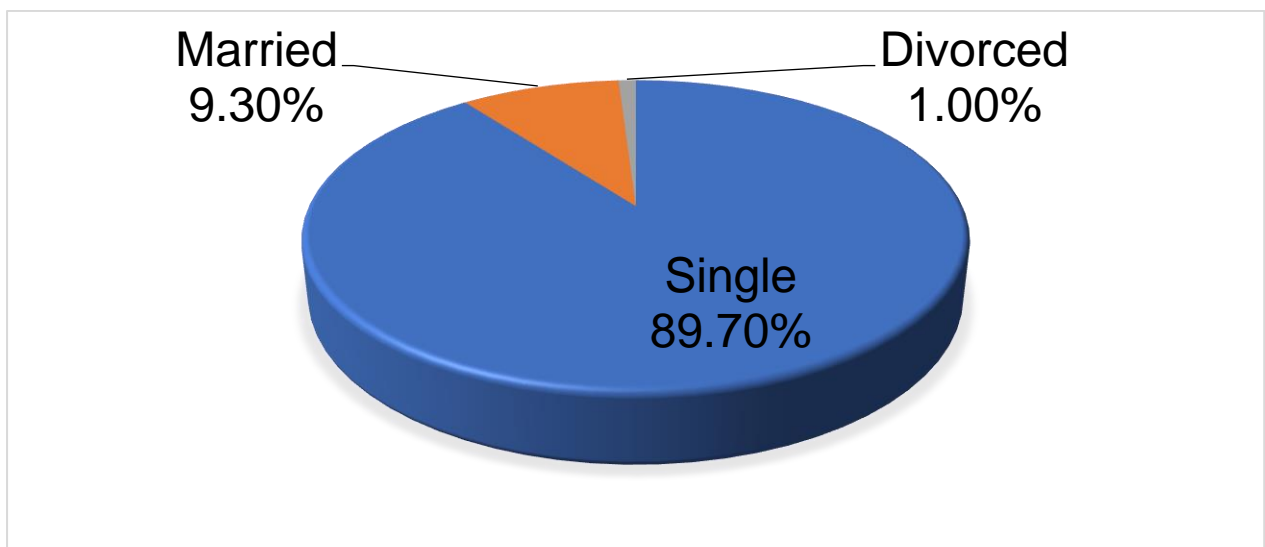
**Figure 4.5: Religion of respondents**



**4.1.6 Marital status of respondents**

According to figure 4.6 below, majority of the respondents are single, representing 89.7% of the student population. Married students make up only 9.3%, indicating that the majority of the student body is likely unmarried with relatively low percentage of divorced students at 1%.

**Figure 4.6: Marital status of respondents**



## **4.2. Views Of Students On The Quality Of Food Served From The Kitchen.**

The majority of students (46.8%) either agree or strongly agree that the appearance of the food served from the kitchen is good. However, a significant proportion of the students (24.4%) do not like the appearance of the food served from kitchen while (28.7%) have a neutral stance on this variable as shown in table 4.3 and figure 4.7.

The answers to the taste of food from the kitchen are more evenly distributed than the responses to the appearance variable. Nonetheless, a sizable minority of students (45.7%) either disagree or strongly disagree that the taste of the food supplied from the kitchen is unpleasant. Those who either agree or strongly agree that, the food tastes good were 28.7% with the rest in the neutral stance as shown in table 4.3 and figure 4.7.

A more considerable proportion of students (37.5%) agree or strongly agree that, the of smell of food served from the kitchen is good while (37.5%) of participants were neutral as shown in table 4.3 and figure 4.7.

On this variable, the vast majority of students (44.2%) either agree or strongly agree that cooking utensils are always clean with (26.3%) being on the neutral stance.

The majority of students either agree or strongly agree (47.9%) whilst (30.9%) were in the neutral state regarding the place of cooking is environmentally unhygienic. Approximately, almost half of the respondents consented about good sanitary condition of the school kitchen and its surroundings.

It is clear from the data that, students place a high value on the cleanliness of the cooking staff, with 59.1% of students strongly agreeing or agreeing with this variable.

There is a stronger variation in the responses on this variable, with 38.1% of students either disagreeing or strongly disagreeing about the proper presentation of food from the kitchen.

35.1% couldn't tell their stance on the presentation of food from kitchen with the rest either agreeing or strongly agreeing that there is proper presentation of food from the kitchen as shown in table 4.3 and figure 4.7.

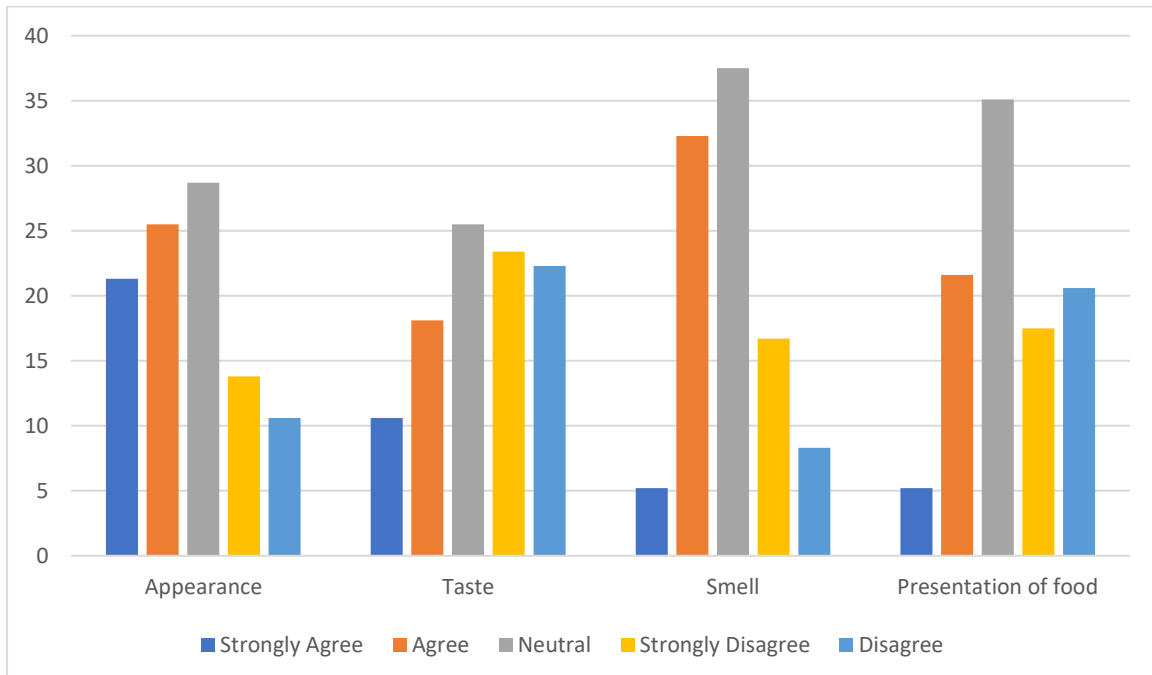
On an average it can be deduced that 41.6% of the respondents consented to good quality of food served from the school's kitchen regarding agreeing and strongly agreeing responses.

**Table 4.3 Views of Students on The Quality of Food Served from The Kitchen.**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Appearance</b>		
Strongly agree	20	21.3
Agree	24	25.5
Neutral	27	28.7
Disagree	13	13.8
Strongly Disagree	10	10.6
<b>Total</b>	<b>94</b>	<b>100%</b>
<b>Taste</b>		
Strongly agree	10	10.6
Agree	17	18.1
Neutral	24	25.5
Disagree	22	23.4
Strongly Disagree	21	22.3
<b>Total</b>	<b>94</b>	<b>100%</b>
<b>Smell</b>		
Strongly agree	5	5.2
Agree	31	32.3
Neutral	36	37.5
Disagree	16	16.7
Strongly Disagree	8	8.3
<b>Total</b>	<b>96</b>	<b>100%</b>
<b>Cooking utensils are always clean</b>		

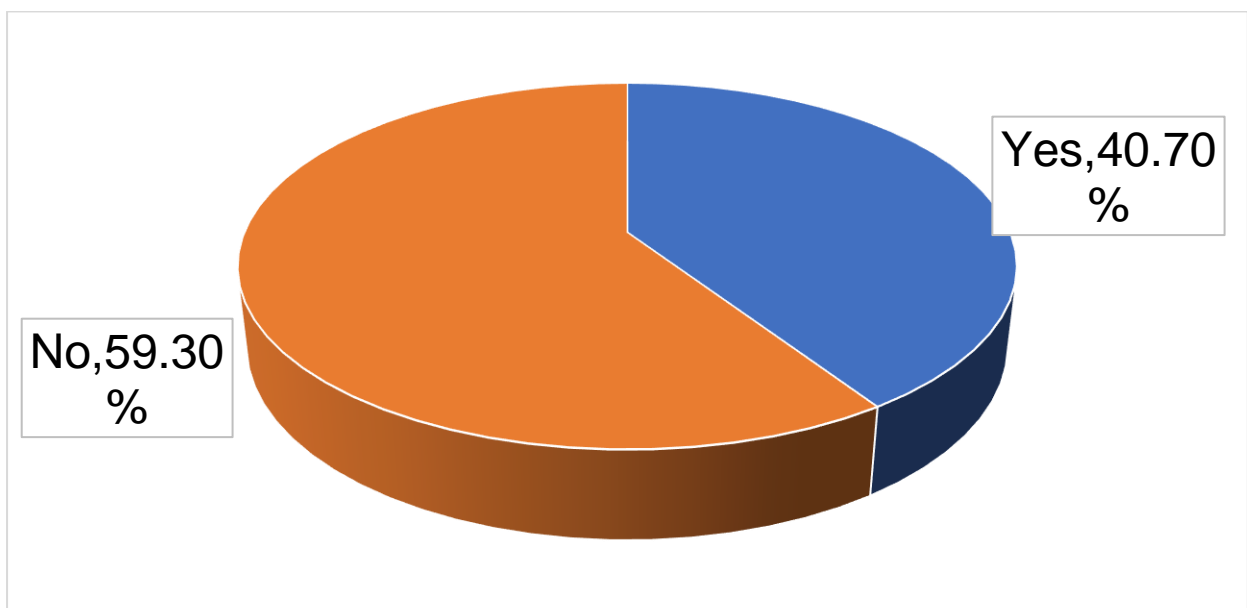
Strongly agree	12	12.6
Agree	30	31.6
Neutral	25	26.3
Disagree	20	21.1
Strongly Disagree	8	8.4
<b>total</b>	<b>95</b>	<b>100%</b>
<b>Place of cooking is environmentally unhygienic</b>		
Strongly agree	11	11.7
Agree	34	36.2
Neutral	29	30.9
Disagree	12	12.8
Strongly Disagree	8	8.5
<b>Total</b>	<b>94</b>	<b>100%</b>
<b>The cooks are clean</b>		
Strongly agree	15	16.1
Agree	40	43.0
Neutral	23	24.7
Disagree	12	12.9
Strongly Disagree	3	3.3
<b>Total</b>	<b>93</b>	<b>100%</b>
<b>Proper presentation of Serving</b>		
Strongly agree	5	5.2
Agree	21	21.6
Neutral	34	35.1
Disagree	17	17.5
Strongly Disagree	20	20.6
<b>Total</b>	<b>97</b>	<b>100</b>

**Figure 4.7: Views Of Students On The Quality Of Food Served From The Kitchen.**



**4.3.0 The views of Holy Family College Berekum students on the quantity of food served from the kitchen.**

**Figure 4.8: Food serve from the kitchen is adequate**



The open-ended questions given to respondents to justify their answers were 36 comments which were categorized base on their choices they made and this includes;

#### **4.3.1 Adequate Quantity (40.7%)**

According to minority (40.7%) of the respondents, out of the 36 comments recorded from the distributed questionnaires 11(30.6%) of the respondents supported in their opinions that, the food served from the kitchen is adequate and therefore suit their satisfaction.

#### **4.3.2 Inadequate Quantity (59.3%)**

Majority of the respondents (59.3%), out of the 36 suggestions obtained from the disseminated questionnaires, 25(69.4%) of the respondents ignored the fact that food given from the school kitchen is adequate.

From the data, we can see that the majority of the students (59.3%) find the quantity of food served from the kitchen to be inadequate. They mention various issues such as fights over food, food finishing quickly, leftovers for some students, complaints about not getting enough food, and sometimes having to wait before eating. On the other hand, a significant proportion of students (40.7%) consider the food quantity to be adequate. They express satisfaction with the food, stating that it is enough for everyone, serves to satiety, and that they always feel satisfied after eating. In the nutshell, as majority carries the vote this could accentuate to the fact that students in Berekum, HFNMTC are dissatisfied with the quantity of food served to them from the kitchen.

#### **4.4.0 The impact of the quality and quantity of food served from the kitchen on student**

#### **4.4.1 Students views on How does the food served on campus affect you on campus**

Their overall comments were 49 which differed depending on how the food offered on campus affected them and were thus classified into four themes as follows;

##### **4.4.1.1 Negative Impact:**

Taking into account their suggestions, 26 of the 49 respondents, or 53.0% of the students, stated that the food offered had a detrimental impact on their well-being and academic performance, which are as follows:

A) The food is perceived as lacking necessary nutrients, leading to poor concentration, physical distress, and lower academic achievements.

B) late serving of meals, especially on weekends, disrupts students' study schedules and forces some to spend extra money on food outside campus, causing financial instability.

C) Digestive issues such as stomach problems and diarrhea further contribute to their frustration and weakened state.

D) Concerns about the taste and appeal of the food are also raised, as it is described as bad-tasting and unappetizing, making it difficult to enjoy.

E) consuming the morning breakfast sometimes results in sleepiness, which hampers energy levels and attentiveness throughout the day.

F) Other students also made mentioned that, they have no choice than to eat from the school kitchen.

##### **4.4.1.2 Positive Impact:**

In terms of positive impact, the food served have on students 6 out of the 49 respondents representing 12.2% were in concordance to the fact that:

A) It helps them save time and does not have any adverse impact on their well-being. This suggests that they find the food to be convenient and a time-saving option.

B) It provides them with the necessary nutrients to maintain good health, which in turn contributes to having a stable mind and the ability to study effectively.

C) As satisfaction plays a crucial role in the students' perspective. They emphasize that when they feel satisfied with the food, it positively impacts their overall well-being, allowing them to be in a good state to pursue their academic endeavors.

#### **4.4.1.3 Time and Convenience:**

With respect to time and convenience, 11 out of the 49 respondents representing 22.4% stated that;

A) The food delays them due to factors such as longer serving times or specific dishes taking a lot of time to eat, as in the case of fufu on Saturdays. These delays can disrupt their schedules and potentially affect their study or leisure time.

B) However, there are contrasting opinions where some students mention that the food doesn't affect them personally, but they acknowledge that certain dishes or circumstances, such as the extended time to consume fufu, can cause delays for other students.

C) On the positive side, 1 out of the 11 of the student's comments highlight that the availability of food on campus saves them from the hassle of going off-campus.

#### **4.4.1.4 Financial Impact:**

In the context of financial implications, 6(12.2%) of the 49 student comments said that;

A) Students occasionally find themselves in a situation where they have to spend additional money to purchase food outside of the campus. This implies that the food served on campus may not always meet their preferences or needs, leading them to seek alternative options at additional expense.

B) The extra expenditure on external food represents a financial burden for students, as they are compelled to allocate additional funds to satisfy their dietary requirements. Moreover, the need to seek food outside campus suggests a potential gap in the satisfaction and availability of food options provided by the college. Students may find it necessary to supplement their dining hall meals by purchasing meals elsewhere to meet their preferences, taste preferences, or dietary needs.

#### **4.4.2 Students views on Menu Items they Preferred Most and Their Reasons**

47 of the students expressed their preferences for various dishes on the menu, highlighting their reasons for choosing them.

From the responses, it was revealed that, the preferred food items vary among students.

Rice and stew seem to be popular selected by 19(40.4%) students due to their taste and being a favorable option for those who don't consume maize.

5(10.6%) of the students selected kenkey with fish because it tastes good than other foods.

5(10.6%) of the students selected Fufu as their favorite and reminding them of home.

5(10.6%) of the students selected Jollof rice as a widespread appeal and is considered edible and tasty especially when accompanied by shito they bring from home.

5(10.6%) of the students selected Banku with okra stew as it is appreciated for its nutritional value and the its water driving capacity.

3(6.4%) of the students selected Gari and Beans (Gob3) for its nutritional content and satisfying nature.

2(4.2%) of the students selected Waakye for its versatility in preparation.

2(4.2%) of the students selected white porridge and 1(2.1%) of the students selected Ampesi.

#### **4.4.3 Students views on Menu Items they Dislike and Their Reasons**

42 of the students commented expressing their dislikes for various dishes served on campus and this includes; Most of the students 12(28.6%), dislike Banku and groundnut soup on the school menu, followed by rice and beans, Ampesi and Kenkey with 5(11.9%) respondents respectively. 7(16.8%) of the respondent's dislikes gari and beans. Limited number of respondents 2(4.8%) dislike Jollof and only 1(2.4%) of the respondents disliking Fufu. 30 of the respondents stated their reasons and their reasons were categorized according to this theme:

##### **4.4.3.1 Lack of Taste or Flavor**

Most of the respondents 10(33.3%) suggested lack of taste of the served component. Banku and groundnut soup, were the mostly mentioned food that student are dissatisfied with the taste, they mentioned its always not well cooked resulting it taste to be like eating raw grinded groundnut with water. Gari and beans receive criticism for not tasting good, indicating dissatisfaction with the flavor combination. The students find these dishes unappetizing due to the absence of satisfying taste. Fufu is mentioned as a dislike without specific reasons provided. Rice and beans stew is disliked because the beans are not well cooked, detracting from the overall appeal of the dish. Jollof rice is found difficult to chew and lacking sufficient stew during its preparation, affecting the overall enjoyment of the dish. Kenkey with sauce is disliked due to some students finding the fish bitter or the sauce lacking in taste quality. Kontommere stew is mentioned as itchy, potentially causing discomfort when consumed. These dislikes suggest that students are dissatisfied with the taste, quality, or preparation of these specific dishes.

#### **4.4.3.2 Repetition/Frequency**

The repetition and frequency of certain food items, particularly banku and kenkey, are mentioned as a challenge by 3(10.0%) of the respondents. They expressed concerns about eating these dishes too often, leading to monotony and a desire for more variety in the menu. Some students specifically mention that the high occurrence of banku and groundnut soup or kenkey becomes repetitive and less enjoyable over time. This repetition can affect students' satisfaction with the meal options and their overall dining experience

#### **4.4.3.3 Specific Issues with Preparation**

Some of the respondents 5(16.7%) expressed specific concerns with the preparation of certain dishes on the menu. These include issues such as the presence of gravels and an unpleasant smell in rice and beans, the bitter taste of yam and garden egg stew, and dissatisfaction with the sharing method of Ampesi. Additionally, mouth itching is reported with rice and kontomire stew. These specific concerns highlight the importance of addressing issues related to ingredient quality, taste, and presentation to improve the overall dining experience for students

#### **4.4.3.4. Dissatisfaction with Specific Ingredients/Combinations**

Only 2(6.7%) of the respondents annotated on the reason for their dislikeness concerning dissatisfaction with specific ingredients or combinations in the food served on campus. They dislike dishes such as gari and beans, banku and gari with beans, or Ampesi with green leafy stew. Some combinations, such as rice with kontomire stew or yam with garden eggs, also fail to please students. These dislikes emphasize the need to consider students' taste preferences and adjust the menu options accordingly to improve overall satisfaction

#### **4.4.3.5 Specific Issues with Served Components**

6(20.0%) of the respondents indicated displeasure with the served components such as Kenkey and fish with sauce. Concerns include undercooked Kenkey, tasteless or bitter sauce, and the fish being bitter. Also, they added that, the tombrown is too light that immediately that add on sugar it becomes watery. These issues impact the overall flavor and quality of the dish, leading to student dissatisfaction. Improving cooking techniques and flavors will help enhance the taste and satisfaction of Kenkey and fish dishes.

#### **4.4.3.6 Miscellaneous Dislikes**

4(13.3%) of the respondents expressed dissatisfaction with specific dishes due to various reasons such as irritation of the mouth and throat caused by Palava sauce with yam or rice, personal dislikes for Gob3, tombrown, groundnut soup, beans stew, and Awakye, possibly based on taste, texture, or personal preferences. Therefore, food should be well cooked to improved students' satisfaction.

#### **4.4.4 On their views whether the menu should be changed**

Based on their views whether the menu should be changed, a total of 14 suggestions were obtained, the results revealed that majority of students 13(92.9%) believe that the menu should be changed. Some responses were emphatic, indicating a strong preference for menu changes. Students expressed their desire for improvements in the preparation, taste, and variety of the dishes. However, only 1 (7.1%) student expressed a different opinion and stated that he does not believe the menu should be changed. Overall, the general consensus leans towards the need for menu changes and improvements.

#### **4.4.5 On their views whether if the college Should allow them to feed themselves**

The overall opinions regarding the student views on the college allowing them to feed themselves were 18. In terms of “No” response: only 6(33.3%) of the student commented, expressing a preference for the college to continue providing food for them. They appreciate the convenience and reliability of having meals provided by the college.

Regarding the “Yes” response: 12(66.7%) of the students commented believing that the college should allow them to feed themselves. They desire better-tasting food, more options, and the ability to have control over their meals. Some even suggest bringing their own cooking utensils to enhance their dining experience.

With respect to “Mixed or Conditional” response: only 1(5.6%) of the students mentioned that allowing self-feeding would be beneficial but suggests that certain measures or guidelines should be implemented beforehand to ensure a smooth transition.

The responses indicate a range of perspectives, with some student’s content with the college providing their meals, while others feel that having more control and options over their food would be advantageous. It's important for the college to consider these differing opinions when making decisions about meal provisions, potentially exploring solutions that balance both the convenience of providing food and the desire for greater autonomy in food choices.

#### **4.4.6 Students views on why they consistently attend the dining hall and why**

Considering students consistency at the dining hall, the overall reactions was 49, with 25(51.0%) consenting to the “Yes response” whiles 24(49.0%) consenting to the “No response”. Students' dining hall attendance hinges on multiple factors, including food availability (some rely on it as their sole campus food source or due to prepaid plans), choice and preference (with dislikes, specific preferences, or food taste affecting decisions), accessibility and convenience (impacted by food availability and wait times), and financial

constraints (some attend due to affordability). In summary, students' dining hall usage is influenced by their food preferences, convenience, financial situations, and the availability of alternative dining choices.

#### **4.4.7 Students views on any other challenges facing feeding on campus**

With respect to student's views on any other challenges facing feeding on campus, 35 responses were recorded and 27(77.1%) indicated "Yes" in the sense that, students are facing various challenging while 8(22.9%) of the respondents objected by selecting "No". Various challenges face the feeding of students on campus, encompassing issues such as delays in serving and insufficient food quantity or nutritional value. Limited food options, including a lack of diversity and adaptability to different preferences, also pose challenges. Concerns regarding food quality, taste, and potential health impacts, including allergic reactions, were raised. Infrastructure limitations, such as insufficient seating, affect dining comfort and accessibility. Additionally, communication gaps between students and kitchen staff and the perception that student feedback is not adequately considered are noteworthy issues. Miscellaneous challenges include the absence of breakfast essentials, a desire for external food vendors, and communication shortcomings within the dining facility.

#### **4.4.8 Students views on How they get themselves sorted when they are dissatisfied with the meal served**

When faced with dissatisfaction with the meal served on campus, students employ various strategies to address the issue. Overall responses regarding this were 47 comments. Most of the student 22(46.8%) comments were on purchasing food from outside locations, followed by 12(25.5%) students going to sleep without eating and 10(21.3%) students relying on personal provisions or lockers. Limited number of students 3(6.4%) of the comments indicated, students reporting their dissatisfaction to authorities. These responses highlight the

diverse ways in which students address meal dissatisfaction, often depending on their individual circumstances and available resources. Buying food from external sources and using personal provisions are prevalent solutions in such situations.

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSIONS, RECOMMENDATIONS**

#### **5.0 Introduction**

This section encompasses the discourse, conclusion and recommendation of the principal discoveries previously delineated in chapter four. The discussions rely on the investigation's findings juxtaposed with pre-existing studies and theories, elucidating possible rationales for both similarities and dissimilarities between them. These deliberations regarding the satiety and impact of food quantity and quality among college students serve as the foundation for this chapter's ultimate conclusions and recommendations.

#### **5.1 Discussion**

##### **5.1.1 Demographical data**

The demographic data provides valuable insights into the composition of the surveyed population. The predominance of individuals in their early twenties, with 88.4% falling between 18-30 years of age, aligns with the typical age range for college students pursuing nursing diplomas. This age distribution suggests that the survey sample largely represents nursing students in the early stages of their education. The gender distribution, with 66% females and 34% males, mirrors the gender makeup commonly found in nursing programs, where females tend to outnumber males. This reflects the broader trend in the nursing profession, where women traditionally constitute the majority of the workforce. The distribution of educational levels, with Level 300 having the highest percentage (45.2%), likely reflects the third-year students, being more acclimated to the college environment, tend to be more active in extracurricular activities like surveys. The lower participation rates among first and second-year students could be attributed to the challenges and adjustments

associated with transitioning into college life. Regarding ethnicity, the prominence of Akan speakers (72.3%) suggests a diverse student body, which is common in nursing colleges situated in the Southern part of Ghana, that attract students from various ethnic backgrounds. The presence of other ethnic groups such as Ewe, Ga, and Hausa, as well as those who speak unlisted languages, further underscores the diversity within the nursing student population. Finally, the high percentage of single respondents (89.7%) is consistent with the typical marital status of college students, who often prioritize their education before marriage. The low percentage of married (9.3%) and divorced (1%) students reaffirm this trend among nursing students, who typically pursue their studies with a focus on building their careers before settling into family life.

Overall, this demographic profile aligns with the expectations for nursing students and provides a valuable context for understanding the characteristics of the surveyed population in the field of nursing education.

### **5.1.2 The views of Holy Family College Berekum students on the quality of food served from the kitchen.**

Looking at the data provided in chapter four, it's clear that students have varying opinions on different aspects of the food quality. While the majority agree that the appearance of the food is good (46.8%), a significant portion still disagrees or has a neutral stance (24.4% and 28.7%, respectively). Similarly, when it comes to taste, although some find it good (28.7%), there is a sizable majority who disagree (45.7%).

One possible explanation for this disconnect between cleanliness and food satisfaction could be that students prioritize different aspects of their dining experience. Cleanliness of the cooking utensils and staff is crucial to ensure food safety, and it's clear that students value this aspect highly (44.2% and 59.1% respectively). However, other factors like taste and

appearance might be equally important to them, and if those expectations aren't met, it can lead to dissatisfaction.

It's also worth noting that students' perceptions of food quality can be influenced by various factors, including individual preferences, cultural background, and previous food experiences. It's a complex issue that might require a closer look to identify specific areas of improvement. On an average 41.6% of respondents were satisfied with the quality of food served from the school's kitchen. Despite the cleanliness of the cooking staff, it can be revealed from the analysis in chapter four that, majority of students at Berekum HFNMTC are dissatisfied with the quality of food served from the school kitchen as a significant proportion of students either strongly disagree or disagree with the following variables; appearance, taste, smell, clean cooking utensils and proper presentation of food. This study collided with a study conducted in United State by Koenigstorfer et al. (2021) who found that, students were generally satisfied with the quality of food served in their dining halls but was in consistent with the studies conducted by Shi, Davies and Allman-Farinelli (2021) and Abbey, Brown and Karpinski (2022), who found out that, poorer dietary outcomes were found in university students.

### **5.1.3 The views of Holy Family College Berekum students on the quantity of food served from the kitchen.**

The analysis from chapter four reveals that a substantial majority of students (59.3%) at Berekum HFNMTC find the quantity of food served from the kitchen to be inadequate. They report various issues, including food shortages, disputes over food, complaints about not receiving enough, and sometimes having to wait for meals. Conversely, a significant minority (40.7%) of students perceive the food quantity as adequate and express satisfaction with its sufficiency and ability to satisfy their hunger. In summary, the data suggests that a majority

of students at Berecum HFNMTC are dissatisfied with the quantity of food provided from the kitchen, which highlights a notable concern regarding food availability on campus. The findings of this study were in line with a study conducted by Johnson et al. (2022), who figured out that, a significant proportion of undergraduate students perceive the quantity of food served at the university dining hall to be inadequate. Also, this study was in support of the current study whose findings indicated that, a sizeable percentage of community college students believed that, the amount of food served in the dining hall is insufficient (Garcia & Martinez, 2023). Contrary to the study conducted in south Korea by Lee (2019), it was evident that students perceived the portion sizes of school meals as appropriate and were satisfied.

#### **5.1.4 The impact of the quality and quantity of food served from the kitchen on student.**

Concerning Students' views on how campus food affects them were categorized into four themes: Negative Impact, Positive Impact, Time and Convenience, and Financial Impact. Negative Impact: 53.0% of the student's comments, indicating majority express concerns about the negative effects of campus food on their well-being and academic performance, citing issues like poor concentration, physical distress, late meal serving disrupting study schedules, and digestive problems. Positive Impact: 12.2% of the student's comments indicated that, they find campus food convenient and energy-providing, contributing to good health and stable minds. Satisfaction with food positively influences their overall well-being. Time and Convenience: 22.4% of the student's comments indicated that, campus food can cause delays due to long serving times or specific dishes, impacting students' schedules. However, others appreciate the convenience of on-campus dining, saving them from the hassle of finding food off-campus. Financial Impact: 12.2% of the student's comments indicated that, students may need to spend extra money on external food when campus

offerings don't meet their preferences or needs, representing a financial burden. From the data, it is evident that the impact of the food served from the kitchen on students is not uniform. While most students experience negative effects such as dissatisfaction, stomach problems, and poor academic performance, others do not feel affected or find it beneficial in terms of time-saving and providing energy for studying. This study was in concordance to the study conducted by Smith, Mcneil and Ali (2020), whose results confirm that quality of food, ambience, value for money, food and beverage options and service quality have a positively significant impact on students' overall satisfaction with the on-campus food-service operation and dining frequency

Regarding Student Preferences for Menu Items: Students have various preferences for menu items based on taste, nutritional value, satisfaction, and familiarity. Popular choices include rice and stew 19(40.4%), followed by Kenkey, Fufu, jollof rice, and banku with okra stew 5(10.6%). A recent study by Thompson et al. (2022) who revealed that 80% of the students expressed the need for increased quantity of food supported this study.

According to Student Dislikes for Menu Items: Students express dislikes for certain dishes due to taste issues, repetition, specific preparation problems, ingredient combinations, served components, and personal preferences. Most of the students 12(28.6%), dislike Banku on the school menu, followed by rice and beans, Ampesi and Kenkey with 5(11.9%) respondents respectively. 7(16.8%) of the respondent's dislikes gari and beans. Limited number of respondents 2(4.8%) dislike Jollof and only 1(2.4%) of the respondents disliking Fufu. The study was inconsistent with the study conducted by Serhan and Serhan (2019), who found from their study that, students dislike menu items as they suggested their institution management should improve diet quality by offering more nutritious food.

According to students Views on Menu Changes: 13(92.9%) of the students comments out of the 14(100%) believe that the menu should be changed to improve the taste, variety, and overall quality of dishes. However, there is a minority opinion that favors keeping the current menu. This diversity of perspectives echoes the findings of Koenigstorfer et al. (2021), which indicated that students were dissatisfied with food variety and nutritional value. Also, the majority of students expressed a need for menu changes, mirroring the findings of Thompson et al. (2022) regarding students' desire for increased food quantity.

According to students Views on Self-Feeding: Opinions on whether the college should allow students to feed themselves vary. 12(66.7%) out of the 18 comments prefer the transitioning to self-feeding and also desire more control and better-tasting food while 6(33.3%) of their comments indicated convenience of college-provided meals.

According to students on Consistent Dining Hall Attendance and Challenges: out of the 49 overall comments, 25(51.0%) consenting to the “Yes response” while 24(49.0%) consenting to the “No response”. Students' attendance at the dining hall were depending on factors like food preference, taste, convenience, financial constraints, and the availability of alternative dining choices. The comments indicated battling arguments between the two responses but many students consented to being consistent at the dining hall premises as their only source of food while on the other hand others reported infrastructural and quality of food defects at the dining hall depriving their attendance.

With respect to the Challenges facing feeding on campus, out of the 35 comments recorded, 27(77.1%) of the comments indicated “Yes” in the sense that, students are facing various challenging while 8(22.9%) commented “No”. These challenges include; delays in serving, inadequate food, limited food options, food quality and taste issues, health concerns, infrastructure limitations, communication gaps, and other miscellaneous challenges. When

dissatisfied with meals, 22(46.8%) out of the 47 comments suggested, students resort to buying food from outside, 12(25.5%) of the comments suggested students sleeping without eating, followed by 10(21.3%) of the comments suggested students relying on personal provisions or consuming snacks or biscuits and only 3(6.4%) complaining/reporting. These findings align with the research conducted by Joung, Choi, and Wang (2016), highlighting the significant effects of perceived quality and value on customer satisfaction in the context of campus dining had significant effects on customer satisfaction, therefore, quality food always draws people back and vice versa.

## **5.2 Conclusion**

In conclusion, this research study has shed light on the dissatisfaction among students with the quality and quantity of food served from the school kitchen and the multifaceted impact it has on them. Overall, the study indicates that the impact of food served from the kitchen on students is not uniform, with differing experiences among the student body. While most face negative consequences, there was a limited percentage who do not feel affected or find it beneficial.

Finally, this research underscores the importance of addressing students' concerns and preferences regarding campus food, with implications for improving the overall dining experience and student satisfaction. It also emphasizes the need for further research and action to enhance the quality and variety of food offerings, making them more aligned with students' expectations and preferences.

## **5.3 Recommendations**

To effectively address these issues, management of Berekum, HFNMTTC can consider the following measures:

1. Pay attention to students' preferences and suggestions: The study indicates a desire among students for menu changes and increased food quantity. Conducting surveys or holding focus groups can help gather feedback and understand students' preferences.
2. Improve the quality and variety of menu items: Based on the expressed preferences and suggestions of students, the dining facility can review its menu, make changes to recipes, or add new dish options that align with students' requests.
3. Expand dining choices: Specifically focus on the availability of alternative dining options on campus. This may include allowing trusted food vendors inside campus.
4. Enhance infrastructure: The study highlights communication issues and infrastructure limitations that impact campus dining. Institutions should look into improving communication channels and infrastructure to make the dining process more efficient and convenient for students.
5. Increase in Kitchen staff: An increase in staff denotes the deliberate action of hiring additional personnel among the local staffs. This decision can be made to address various factors, including a growing workload, students concern, the need for specialized skills, or other operational requirements. By increasing the number of employees at the kitchen, this will enhance their capacity, improve productivity, and effectively meet the preference of students on the quality and quantity of food served at the kitchen.

## APPENDIX

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## QUESTIONNAIRE

Dear respondents,

We are third (3<sup>rd</sup>) year students of Holy Family Nursing and Midwifery Training College, Berekum conducting a research to study the views of students on the quality and quantity of food served from the kitchen and the impact it has on them on campus at HFNMTC Berekum. Please indicate your responses by ticking against your preferred choice(s) or fill in the boxes where required. It is of utmost importance that you give clear and concise responses that would facilitate smooth data analysis. It is for academic purpose and your identity will not be disclosed so please be at ease and co-operate by giving us your

best and honest opinion. Please tick [ ] or write as appropriate. All information provided will be treated as confidential.

**A. Demographical data**

	Characteristics	
A	Age	18-30 [ ] 31-45 [ ]
B	Gender	Male [ ]                      Female [ ]
C	Educational level	Level 100 [ ] Level 200 [ ] Level 300 [ ]
D	Ethnicity	Akan [ ]                      Ewe [ ] Ga [ ]                          Hausa [ ] Others [ ]
E	Religion	Islamic [ ]                      Christians [ ] Traditional [ ] Other [ ]
F	Marital Status	Single [ ]                      Married [ ] Divorced [ ]                      Widowed [ ]

**B. The views of Holy Family College Berekum students on the quality of food served from the kitchen.**

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	Appearance					
2	Taste					
3	Smell					

4	Cooking utensils are always clean to ensure food safety					
5	Origin of production is environmentally hygienic					
6	The cooks are clean.					
7	Proper presentation of food for serving.					

**B. The views of Holy Family College Berekum students on the quantity of food served from the kitchen.**

8. Food served at the kitchen is adequate.

Yes [ ] or No [ ]

9. Justify your answer in question 8 above

.....

....

**C. The impact of the quality and quantity of food served from the kitchen on student;**

10. How does the food served on campus affect you on campus?

.....

11. Which of the foods on the menu do you prefer most and why?

.....

12. Which of the foods on the menu do you dislike most and why?

.....

13. Do you think the menu should be changed?

.....

14. Should the college allow you to feed yourselves?

.....

15. Do you always go to the dining hall and why?

.....

16. Any other challenges facing feeding of the students on campus?

.....

17. How do you get yourself sorted when you are dissatisfied with the meal served?

.....

.....THANK YOU.....

NATIONAL CATHOLIC HEALTH SERVICE (DIOCESE OF SUNYANI)  
**HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE  
BEREKUM**



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AND HEALTH

Our Ref. ....HFNMTC/GC/011/051823

Your Ref. ....



P. O. Box 21,  
Berekum, B/A  
Ghana, W/Africa  
Tel. 0352222124  
Fax: 0352222474

Date ..... May 18, 2023 .....

Dramani Fuseini Ayamba  
Holy Family NMTC  
Post Office Box 21  
Berekum

Dear Mr. Ayamba

**RE: PERMISSION TO CONDUCT RESEARCH**

With reference to your Memorandum dated May 18, 2023, I write to notify you that the students listed below have been granted permission to conduct their research in the College on the topic 'The Assessment of Students' view on Quality and Quantity of Food served from the Kitchen and the Impact it has on them on campus; a study at Holy Family Nursing and Midwifery Training College, Berekum.'

1. Boakye Isaac Fordjour
2. Boakye Mary

Thank you.

Yours sincerely

ACADEMIC CO-ORDINATOR - NURSING  
HOLY FAMILY NURSING & MIDWIFERY  
TRAINING COLLEGE, BERKUM

Rev. Sr. Margaret Afrifa  
Academic Coordinator for Nursing  
For: Principal