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SENIOR HIGH SCHOOL

Assessing the Patient's Level of Satisfaction on the Quality of Hospital Food in Muntinlupa

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CHAPTER 1: INTRODUCTION

Overview of the Topic

Studies have shown that inadequate nutrition often results in prolonged hospital stays (Leondro-Merhi et al., 2014). Patients' hospitalization can be influenced by unsatisfactory food quality factors which can reduce their dietary and nutritional intake. Consequently, this can lead to adverse effects on their health, slowing down recovery.

The food served to patients in the hospital may cause dissatisfaction either in taste, appearance, or the lack of variety. This can cause patients to have reduced food intake which can lead to poor nutrition. In public hospitals in the Philippines, this issue is exacerbated where high-quality meals are difficult to provide due to staffing shortages and inefficient food supply systems (Casas et al., 2023).

This study, titled "Assessing the Patient's Level of Satisfaction on the Quality of Hospital Food in Muntinlupa," investigates the link between patient contentment and meal intake, aiming to reveal the influence of food quality on recovery. A similar study conducted in Malaysian public hospitals discovered that many patients were not very happy with the food service. They mentioned that a limited variety and lower quality of meals contributed to less eating and, ultimately, a slower recovery (Aminuddin et al., 2018).

Background of the Problem

Proper nutrition is vital for patient recovery, particularly in hospitals where meals are designed to meet specific health requirements. However, dissatisfaction with hospital

food—whether due to taste, appearance, or lack of variety—can lead to reduced food intake, resulting in inadequate nutrition. According to Busra et al., (2017), this can hinder recovery, extend hospital stays, and negatively affect overall health outcomes. This study, titled "Assessing the Patient's Level of Satisfaction on the Quality of Hospital Food in Muntinlupa," aims to assess how well hospital meals meet both the nutritional needs and satisfaction of patients. The study seeks to uncover how food quality impacts patient satisfaction and meal consumption.

Previous research by Leondro-Merhi et al., (2014), has established a consistent link between poor nutritional intake and longer hospital stays. In the Philippines, public hospitals often face challenges in providing high-quality meals due to limited human resources and inefficient food procurement processes (Casas et al., 2023). A similar study in Malaysian public hospitals found that many patients rated the food service poorly, citing limited variety and poor quality as key issues that led to reduced consumption and slower recovery (Aminuddin et al., 2018). These findings highlight the crucial role that meal satisfaction plays in maintaining adequate nutrition for recovery.

In conclusion, while hospital meals are tailored to support recovery, patient dissatisfaction can reduce their effectiveness. This study aims to evaluate how well the hospital food in Muntinlupa aligns with patients' nutritional needs and personal preferences, offering insight into potential improvements in hospital food services to enhance patient recovery.

Existing Solutions and Their Limitations

This study aims to assess the level of satisfaction of in-patients in our chosen Muntinlupa hospital with the quality of hospital food. It will survey hospitalized patients, focusing on their perceptions of taste, overall food quality, and nutritional value. However, the study will not evaluate other aspects of patient care or scientifically assess the adequacy of the meals' nutritional content. The research is limited to a hospital within Muntinlupa and exclusively considers the patients' perspectives regarding hospital food. Existing solutions on the improvement of patient satisfaction, such as improving meal presentation, following food trends, and incorporating patient preferences, have shown strengths in enhancing appeal and meeting patients' expectations (Compass One Healthcare, 2023). However, it is necessary to note that presentation alone cannot compensate for poor food quality, keeping up with food trends may require additional training and may not always align with nutritional needs, and patient preferences vary widely, often conflicting with dietary restrictions.

Rationale

Hospital meals are thoughtfully prepared while keeping quick recovery and well-being of patients in mind. The meals served in hospitals are designed for each patient to meet their nutritional and clinical needs which help to support their recovery journey. At the same time, it is essential for these meals to be delicious and enjoyable as consumption is also critical to ensure that the patients obtain the nutrients needed. Many patients decline the food offered as it does not align with their tastes (Greig, 2016); as a result, patients may have inadequate nutrient intake which can slow down their recovery process. This study intends to address whether the nutritional adequacy of the served meals meets the clinical needs of patients while satisfying their preferences. The focus of the research aims to evaluate the quality of the served hospital

meals, appraise patient satisfaction, and determine if there is a relationship between the two. By assessing these, hospital meal services can be refined to improve patient recovery by utilizing the findings of this research.

Research Questions

Recovering patients benefit not only from medical care and rest but also from the meals that support their recovery. While hospital meals are modified to meet essential nutritional requirements, patient satisfaction levels are often low when individual food preferences are not considered, which can negatively affect their recovery experience (Safarian et al., 2018). This study aims to assess patient satisfaction with hospital food in Muntinlupa, considering both the food's quality and patients' personal preferences. Through this, the research aims to address the following questions:

1. What are the nutritional standards for hospital meals that are served to recovering patients?
2. What is the patient's level of satisfaction in terms of;
    a. Taste
    b. Appearance
    c. Variety
    d. Nutritional Value
3. Is there a significant relationship between the quality of hospital food and patient satisfaction?

Research Objectives

The meals served to hospital patients are tailored to meet their general preferences and provide nutrients for their recovery. However, while these meals aim to provide quality and satisfaction, many patients decline the food offered because it does not align with their tastes (Greig, 2016). Their refusal can impact their health, as it may potentially slow down the recovery of their overall well-being. Thus, this study aims to achieve these following results:

1. To investigate the nutritional standards for hospital meals.

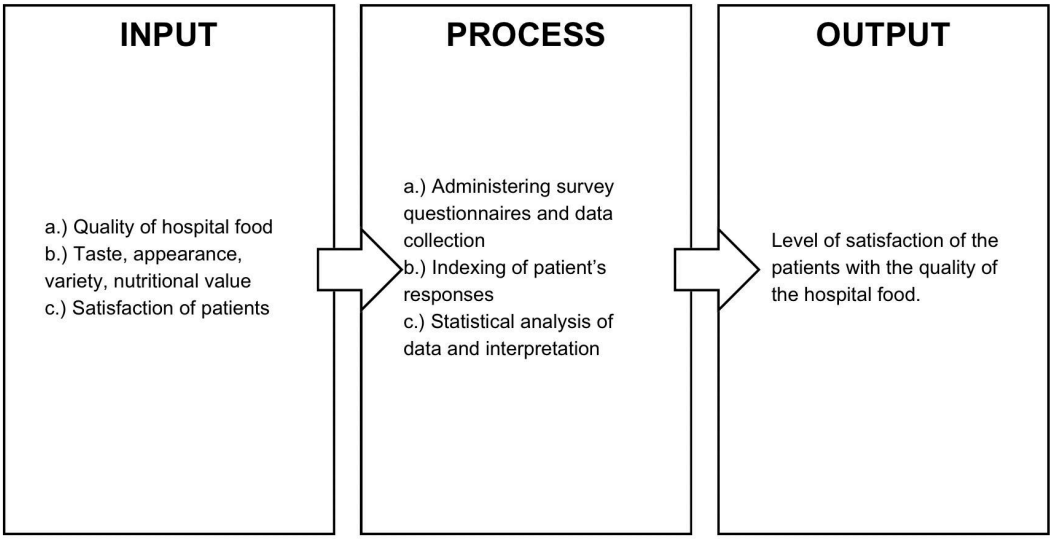
2. To assess the level of satisfaction of the patients with their hospital food.

3. To determine if there is a relationship between the quality of hospital food and patient's level of satisfaction.

Hypothesis

There is a correlation between the level of satisfaction and food quality.

Operational Framework



To better understand the conceptual flow of this research, an IPO diagram is used. The input stage includes essential variables that influence patient satisfaction with hospital food quality: the overall quality of hospital food, aspects such as taste, appearance, variety, nutritional value, and the general satisfaction of patients. To achieve the desired outcome, the process involves distributing survey questionnaires to gather patient feedback, organizing responses through tabulation and indexing, and performing statistical analysis to interpret the collected data. The output of this research is a comprehensive measure of patient satisfaction regarding hospital food quality, offering valuable insights into how well the hospital's food services meet patient expectations and highlighting areas for potential improvement. This output can guide future initiatives to enhance patient satisfaction by addressing identified needs and preferences related to hospital food quality.

CHAPTER 2: METHODOLOGY

Research Design

This paper will employ a quantitative approach using a correlational research design to examine the relationship between patient satisfaction and the quality of food served in hospitals. The objectives of this study align with the purpose of correlational research, which explores relationships between variables without manipulation (Bhandari, 2023). This allows the researchers to gain insight into the connection of these factors within the natural hospital setting. Specifically, this study will aim to investigate the nutritional standards for hospital meals, assess the level of satisfaction of patients with their hospital food, and determine if there is an association between the quality of hospital food and patient satisfaction. The correlational design is appropriate because it can effectively assess this relationship without altering the natural hospital environment, providing a clear understanding of how these factors interact. By identifying the relationship between these variables, the study will help understand how food quality influences patient satisfaction.

Materials and Equipment

This study will be using a survey questionnaire as the primary tool for data collection. According to Bhat (2023), a questionnaire is a research instrument that consists of a set of questions or other types of prompts that aims to collect information from a respondent. The researchers developed questionnaires based on existing questionnaires and studies, and included questions that target specific aspects such as the patient's level of satisfaction and the hospital food quality, while ensuring the consistency for objective comparisons across respondents. Before distribution, the questionnaires were validated by a dietician. The questionnaires will be handed out to patients in a selected hospital in Muntinlupa and both consist of 15 structured questions and employ the use of a 4-point Likert Scale to ensure that there will be no neutrality in the results. The respondents will be given the first questionnaire that assesses the patient's level of satisfaction and will rate their satisfaction in different aspects such as taste, appearance, and variety as 1-Very Dissatisfied, 2-Dissatisfied, 3-Satisfied, and 4-Very Satisfied. The second questionnaire regarding the hospital food quality will also utilize a 4-point Likert Scale with a scale of 1-Strongly Disagree, 2-Disagree, 3-Agree, and 4-Strongly Agree.

Data Collection Techniques

This research aims to determine the relationship between food quality and the patient's level of satisfaction, hence utilizing the Purposive-Random Sampling Method. Purposive sampling is a methodology that involves choosing a target group with specific criteria to align with the study's objectives (Bisht, 2024). Thomas (2023), states that Random Sampling on the other hand selects a randomly selected subset regardless of their demographics. This sampling method would be a combination of the two and is the best approach to use for this study, as it would involve choosing patients who have specifically experienced and tasted the quality of food served in the selected Muntinlupa hospital, but would disregard their individual diagnosis or diet, ensuring that this sample is directly related to the study's focus on the patient's level of satisfaction with food quality. Purposive sampling reduces the collection of unnecessary data from individuals who are not relevant to the study, making the research process more efficient. Random selection would ensure a lower risk for research biases.

Procedure

The researchers will design questionnaires aligned with the study's objectives to assess the relationship between food quality and patient satisfaction, focusing on aspects such as taste, appearance, variety, and nutritional standards. The questionnaires will also include a confidentiality agreement and consent form. Once the questionnaires are drafted, they will be submitted to the research adviser for verification. Afterwards, the questionnaires will undergo a further validation process to ensure their accuracy and relevance. First, a grammarian will assess the clarity, grammar, readability, and organization of the questions to ensure they are easy for respondents to understand. Secondly, a field expert, in this case a dietitian, will validate the questionnaire to ensure the questions are appropriate for hospital patients, correctly address topics like nutrition and food quality, include all necessary aspects of food quality and satisfaction, and provide data relevant to the study's focus on patient satisfaction. Lastly, it will be evaluated by the research instructor to ensure that there are no overlooked errors and formatting in the arrangement of the questionnaire. This validation process ensures the reliability of the questionnaires in gathering accurate and useful data (Vale, 2023).

After all of the the validators have approved the questionnaires for distribution, the researchers will construct an endorsement letter that will be addressed to the locale of the study, with signatories from the principal and research instructor. The study will use the purposive-random sampling technique to select its respondents, with the goal of having at least 30 respondents. Respondents should be anyone who has experienced the food service from the selected Muntinlupa hospital, regardless of the reason for their confinement and specific demographics. The process of data gathering will involve the hard copies of the questionnaires to be distributed to the hospital for dissemination to the patients during meals. The data collection process will last for 4-6 weeks, after which the completed questionnaires will be retrieved. After data collection, a copy of the results will be given to the selected hospital to analyze satisfaction levels and identify correlations between food quality and patient satisfaction. This process ensures that the study gathers accurate and relevant results. For legal and administrative purposes, a comprehensive record of the retrieval process will be maintained.

Data Analysis

For the data analysis, the data collected from the survey questionnaires will be gathered quantitatively using statistical techniques to assess the patient's level of satisfaction on the quality of hospital food. In this case, the weighted mean and Pearson's Correlation Coefficient or Pearson r, will be used to analyze the relationships between the different variables that take into account the patient's level of satisfaction with the hospital food quality. According to Taylor (2023), the weighted mean is a type of average that is calculated by multiplying the weight associated with a particular event or outcome by its related quantitative outcome and then getting the sum of all those results. The weighted mean can determine the average satisfaction score for aspects in food quality, such as taste, appearance, variety, and nutritional standards and identify which one the patient's are most and least satisfied with. The weighted mean is mathematically represented by this expression:

$$W = \frac{\sum_{i=1}^{n} w_i X_i}{\sum_{i=1}^{n} w_i}$$

Where:
W - weighted average
n - number of terms to be averaged
w_i - weights applied to x values
X_i - data values to be averaged

Table 1. Patient's Level of Satisfaction

Weighted Mean Range	Verbal Interpretation
1.00 - 1.75	Very Dissatisfied
1.76 - 2.50	Dissatisfied
2.51 - 3.25	Satisfied
3.26 - 4.00	Very Satisfied

Table 1 shows the interpretation of the weighted mean scores for the responses to the 4-point Likert scale in the patient's level of satisfaction questionnaire. The weighted mean score helps categorize the respondent's satisfaction into four levels: Very Dissatisfied, Dissatisfied, Satisfied, and Very Satisfied.

Table 2. Hospital Food Quality

Weighted Mean Range	Verbal Interpretation
1.00 - 1.75	Strongly Disagree
1.76 - 2.50	Disagree
2.51 - 3.25	Agree
3.26 - 4.00	Strongly Agree

Table 2 outlines the interpretation of the weighted mean scores from the food quality questionnaire which also utilizes the 4-point Likert scale. It categorizes the respondent's perceptions into four tiers, ranging from Strongly Disagree to Strongly Agree. These help summarize the overall patient's evaluation of the food quality, giving a better understanding of their collective opinions.

Pearson r is a well-established statistic for calculating the association and strength between two variables where the value $r = 1$ means perfect positive correlation and the value $r = -1$ is a perfect negative correlation (Turney, 2023). The two variables in this study that will utilize Pearson r are food quality scores and satisfaction scores. The formula compares the two sets of

scores from the two questionnaires to see whether one score changes predictably based on the other. This statistical treatment could help the researchers assess the possible correlation between the different variables that might influence the patient's satisfaction. After collecting data from the survey questionnaires, the participant's responses will be scored according to their ratings for different food quality aspects. Pearson r is the most viable method for this study as it gives us the freedom to quantitatively interpret the relationships between multiple factors. Pearson r is expressed as:

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

Where:
r - correlation coefficient
x_i - values of the x-variable in a sample
$\bar{x}$ - mean of the values of the x-variable
y_i - values of the y-variable in a sample
$\bar{y}$ - mean of the values of the y-variable

Ethical Considerations

This study will implement several ethical considerations to ensure that each participant's rights and privacy are respected during the data collection process. Participants will be informed in advance about the study's purpose and how their participation will contribute to the research. A confidentiality agreement will be provided beforehand to guarantee their privacy and anonymity, clearly stating that all information gathered by the researchers will be used solely for research purposes. As also stated in the consent form, participation will be entirely voluntary, allowing individuals to choose whether or not to take part in the study, thereby protecting their rights. Additionally, the results will be reported in an unbiased, honest, and transparent manner, presenting the data exactly how it was collected. Together, these actions seek to respect moral principles and promote confidence between participants and researchers.

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