

Nurses' Knowledge, Attitudes and Practices Towards nutritional care among hospitalized patients in Saudi Arabia 2024

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Abstract:

Background: Concern is growing about the occurrence of malnutrition in hospitals throughout the developed world. Reduced involvement of nurses in patients' nutritional care may be one of the contributing factors. Although nurses are among the most trustworthy providers of nutritional information for patients, not much study has been done on nurses' knowledge of their critical role in nutritional care. **This study aimed to:** assess nurses' knowledge, attitudes and practices towards nutritional care among hospitalized patients in Saudi Arabia 2024. **Methods:** A descriptive cross-sectional study was conducted from January to August 2024. The sample size consisted of 110 nurses based on the statistical data obtained from the nursing offices of two hospitals in Makkah, Saudi Arabia. A four-part questionnaire was used in this study. **Results:** the present study showed that 73.6% had high Knowledge of study participant, 45.5% had moderate practices of study participant, and 58.2% had a positive attitude of study participant about nutritional support. Age and level of education had a significant correlation with their knowledge ($P = 0.005$ and $P = 0.001$, respectively). Nursing attitude had a significant correlation with age and the level of education ($P = 0.03$ and $P = 0.003$). And also, nursing practice had a significant relationship with age, work experience in the ICU, and the level of education ($P = 0.001$, $P = 0.001$ and $P = 0.004$, $P < 0.05$). **Conclusion:** The nurses who participated in this study's survey had a favorable attitude, moderate practice, and excellent knowledge of nutritional care for hospitalized patients.

Keywords: Nurses, Nutritional care, Knowledge, Attitudes, Practices

Introduction:

One of the most prevalent issues among hospitalized patients is malnutrition. Malnutrition is frequently disregarded and its treatment is neglected, despite the fact that it is linked to higher rates of morbidity and mortality⁽¹⁾. To guarantee a balanced diet, prevent malnutrition, and enhance patient outcomes, malnutrition screening and suitable nutritional therapy is crucial⁽²⁾. To successfully assess a patient's nutrition and offer suitable counseling and treatment, all healthcare practitioners need to possess fundamental nutritional knowledge and abilities. Consequently, patient care will also be positively affected⁽³⁾.

Because they have the greatest interaction with patients and typically conduct nutritional screenings during a patient's initial hospital stay, nurses actively participate in satisfying their nutritional needs⁽²⁾. In addition to providing the nursing care required preventing the onset and progression of malnutrition, nurses should be aware of the signs and risk factors of the condition⁽⁴⁾. Nurses are also in charge of monitoring patients' nutritional state, assessing their nutritional status, and administering any necessary nutritional therapy as part of the scope of nutritional care⁽⁵⁻⁷⁾. Because of this, nurses need also be well knowledgeable about nutrition⁽⁸⁾.

It is evident that over the past twenty years, Middle Eastern nutritional trends have shifted. Urbanization and the advancement of society are the primary causes of these shifts⁽⁹⁾. Guidelines have been established by the American and European Societies for Parenteral and Enteral Nutrition (ASPEN and ESPEN) for evaluating and choosing nutritional care plans for patients who are at risk of malnutrition⁽¹⁰⁾. Compared to patients who receive adequate nutrition, patients who are hospitalized with malnutrition tend to have longer hospital stays, greater rates of morbidity, higher mortality, and more comorbidity⁽¹¹⁾. These clinical experiences reveal a missing element in the dietary puzzle, as does the lack of awareness and information about them⁽¹²⁾.

Rapid advancements in evidence-based research on nutritional treatment suggest that medical

personnel should enhance their practical nutritional knowledge. In this sense, it is evident that the standard of patients' nutritional care has an impact on both improving patient outcomes and lowering medical expenses. The majorities of clinical retraining programs do not adequately incorporate nutrition and associated topics ⁽¹³⁾.

Along with nutritional assessment, clinical monitoring, parenteral nutrition, and the assessment of drug-nutrition interactions, nurses undoubtedly play a fundamental and crucial role in the nutritional care support team ⁽¹⁴⁾.

The lack of nutritional information among nurses has been a major concern in recent years. The medical curriculum's nutrition instruction is insufficient and conflicting ⁽¹⁴⁾. Few studies have been conducted on nurses' knowledge of their role in nutritional care, their comprehension of the concepts and elements of nutrition, and their experiences in this area, despite the fact that nurses are among the most trustworthy providers of nutritional information for patients. Therefore, the present study was executed to assess nurses' knowledge, attitudes and practices towards nutritional care among hospitalized patients in Saudi Arabia 2024.

Methods

A descriptive cross-sectional study was conducted in two hospitals in Makkah, Saudi Arabia from January to August 2024. The sample size consisted of 110 nurses based on the statistical data obtained from the nursing offices. A four-part questionnaire was designed and distributed among the participating nurses. Then they were recollected and the ones meeting the exclusion criteria were excluded. The inclusion criteria were all the nurses working in two hospitals and the exclusion criteria were nurses' refusal to participate in the study, and incomplete forms.

Demographic data, knowledge-related closed-ended and open-ended questions, attitude-related closed-ended and open-ended questions, and practice-related closed-ended and open-ended questions made up the four sections of the questionnaire. Ten specialists with adequate knowledge in the field were given the questionnaire to ensure the validity of the data. The questionnaire was evaluated and reviewed, and its dependability was investigated. The Cronbach's alpha test was used to determine the questionnaire's reliability.

While one score was given to the correct answers, zero was given to the incorrect ones. In the two-choice questions, which included yes and no, "yes" answers had a score of 2 and "no" answers had a score of zero; and one score was considered for the questions without an answer. The maximum score was 44 and the minimum was zero. Demographic data and percipients' responses were illustrated by descriptive statistics. Percentages and frequencies were used for the categorical variables; while mean \pm standard deviation was calculated for the continuous variables. Fischer's exact test and chi-square test were used to assess the association and differences between categorical variables; and analysis of variance (ANOVA) tests were used to evaluate the relationship between knowledge, attitudes, and practices of ICU nurses with each of the questionnaire variables.

Results:

There were 34 men and 76 women among the 110 nurses that acquired part in the study. **Table (1)** shows their demographic characteristics. The scoring of the questionnaire was based on the type of questions.

Table(1):Demographic information of nurses

Variable	
Age	31.20 \pm 6.11
Gender	
Female	76(69.09%)
Male	34(30.90%)
Level of education	
Bachelor	89(80.90%)
MA	10(9.09%)
PhD	1(0.90%)
Average work experience in the hospital	3.27 \pm 2.55

Table (2) shows their Levels of knowledge, attitudes, and practices of nurses towards nutritional care among hospitalized patients.

Table(2):Level of Knowledge, attitudesandpracticesofnursestowards nutritionalsupportamong hospitalizedpatients

		TotalNumber	TotalPercentage
Knowledge	High(10-14)	81	73.6%
	Medium(5-9)	26	23.2%
	Low(0-4)	3	2.7%
Attitude	Positive(9-18)	64	58.2%
	Negative(0-8)	46	41.8%
Practice	High(9-12)	45	40.9%
	Medium(4-8)	50	45.5%
	Low(0-4)	15	13.6

Table (3) shows their relations between Knowledge, attitudes and practices of nurses and demographic information.

Table(3):AssociationbetweenKnowledge,attitudesandpracticesofnurses and demographic information

	Age	Gender	workexperience(year)	Levelofeducation
Knowledge	0.005	0.2	0.3	0.001
Attitude	0.03	0.4	0.4	0.003
Practice	0.001	0.5	0.001	0.004

Discussion

A significant number of hospitalized patients are suffering from malnutrition^(15, 16). According to studies, the prevalence of malnutrition is decreased when hospital nutrition teams employ a range of nutritional support techniques and provide nutritionist guidance. Effective strategies to lower malnutrition include nursing staff training and hospital catering system monitoring⁽¹⁷⁾. Three cross-sectional descriptive studies conducted in the nutrition and diet department of Hammersmith Hospital in London in 1998, 2000, and 2003 revealed that patients' use of diet therapy techniques and nutritional counseling decreased the prevalence of malnutrition and weight gain⁽¹⁷⁾.

Malnutrition is linked to the negative effects of the illness and remains a significant issue in hospitals. A shorter hospital stay can result in fewer complications and a quicker recovery for patients whose nutritional needs are appropriately met. The ESPEN recommendation states that parenteral nourishment should not be initiated if a patient is hospitalized for more than three days⁽¹⁸⁾. For hospitalized patients, enteral nutrition is therefore the recommended feeding technique⁽¹⁹⁾. According to other research, having a nutritionist on the hospital management team increases energy intake, improves nutrition, and shortens hospital stays. A nutritionist's implementation of nutritional regimens helps shorten hospital stays⁽²⁰⁾.

In the study conducted by Nightingale and Reeves,(1999)⁽¹⁴⁾explained that the Knowledge about the assessment and management of undernutrition among the participants was poor. On the other hand, in the current study high knowledge, moderate practice and positive attitude about nutritional care among ICU nurses were detected. In another study conducted by Salih (2016)⁽¹²⁾assessed knowledge, attitude, and practice concerning nutritional care support among health care providers with their own specific questionnaires. The results showed that a comparable proportion of pharmacists (29.1%) and doctors (31%) had a sufficient knowledge score. Doctors got a higher mean score than the pharmacist and more than a three-quarter of them (80.4%) were congregated in the "average" score group, but showed unclear attitudes to nutritional care support⁽¹²⁾. Instead, in the present study showed that the surveyed nurses had a high knowledge, moderate practice, and a positive attitude about nutritional care among hospitalized patients. These differences refer to the variations between the two different health education systems.

Age and the level of education had a significant relationship. Nursing attitude had a significant relationship with age, the level of education; and nursing practice also had a significant relationship with age, work experience in the ICU, and the level of education (P value < 0.05). We recommend performing other studies on nurses in all the other hospital wards. Given that our hospitals were educational centers; higher nutritional care can be expected compared to other hospitals because of our continuous medical and nursing education. It is also recommended that periodic trainings are better to be given to nurses at regular intervals, taking into account the average practice of nurses; and that nutritional counseling is better to be provided to all patients in hospital for a better nutritional care.

Conclusion:

The present study showed that the surveyed nurses had a high knowledge, moderate practice, and a positive attitude about nutritional care among hospitalized patients. Evaluation of the patient's nutritional status and nutritional care are an important part of nursing practice. In order to increase the knowledge of nurses on nutrition therapy, training should be planned, and nurses should be provided with more duties and responsibilities in the nutritional support given to the patient. Thus, the quality of nutritional support given to the patient can be increased.

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