Research Article

KNOWLEDGE REGARDING RECOMMENDED DIETARY ALLOWANCES OF NUTRIENTS AMONG NURSES

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ARTICLE INFO	ABSTRACT
	Background: Nurses have a great contact with hospitalized patients and play an important role in their nutritional management. The current research is a cross-sectional survey, carried outto assess the knowledge regarding recommended dietary allowances of nutrients among Nellore. **Objective:** 1.To assess the level of knowledge regarding RDA of nutrients among nurses in the Narayana Medical College Hospital, Nellore. 2.To find the association between the RDA of the nutrients and selected demographic variables. **Methods:** The staff nurses in this cross-sectional study working in Narayana medical college and hospital, Nellore. A total of 100 staff nurses were randomly selected. Trained investigators administered a standard questionnaire to each participant during a face to face interview and carried out data collection procedure. **Results:** The results show that, out of 100 staff nurses with regard to the level of the knowledge on computers23% of staff nurses having C grade knowledge, 65% of staff nurses having B grade knowledge, and 12% of staff nurses having A grade knowledge. **Conclusion:** The nutrition knowledge of nurses is not adequate.Improve nutritional care in hospitals effective nutrition training and continuing education for all staff involved in nutritional care of patients has to be addressed as a priority.

INTRODUCTION

Optimal nutritional care plays a key role in the improvement of the patient's condition and decreasing hospitalization. Several studies in different countries have indicated that based on hospital division and the index used for calculation of malnutrition, the risk for malnutrition in hospitalized patients varies between 6% to 55%[1]. There are a limited number of studies performed on this subject in Nellore.

In a recent study on hospitalized patients in Shariati Hospital in Tehran, the prevalence of malnutrition was estimated 6%[2]. Nutritional care is an important part of medical management of patients and plays a key role in improvement, prevention and control of malnutrition in hospitals. Insufficient knowledge among nurses has been one of the major barriers of adequate nutritional care often seen in different hospital settings[3]. Nurses do not achieve suitable nutritional education and because of insufficient knowledge and skills cannot play an effective role in patient's nutrition management.

The Council of Europe in a report on clinical nutrition and patients' nutritional care in hospitals revealed that insufficient education and knowledge about nutrition among all staff groups involved in nutritional services and those at the management level was the second major barrier for proper nutritional care of the patients[4]. In a study on 4512 physicians and nurses in three countries (Denmark, Sweden and Norway) results shown that lack of nutritional knowledge among these groups was the major reason of poor nutritional services[5].

In another study on nutritional knowledge and attitude in comparison to their nutritional practices of 6000 doctors and 6000 nurses in Scandinavia, those with better nutrition knowledge provided patients with better care and more appropriate nutrition services. The study affirms the necessity of enhancing nutritional knowledge on recommended dietary allowances of nutrientsin the curriculum of the health universities and during clinical practices for nurses[6]. Low knowledge scores have been reported for nurses. The mean knowledge score of nurses caring for the elderly in a study conducted in 2001 was 65%[7]. In another report, the mean knowledge score of Australian nurses was 60.2%[8].

There are limited numbers of studies on evaluation of nutrition knowledge on recommended dietary allowances of nutrientsof nurses around the world and few studies have been conducted

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in Nellore. Considering the importance of nutritional care and the role of nutrition knowledge on recommended dietary allowances of nutrients among nurses in improvement of patients' quality of life, the current study is the first study aimed to determine the knowledge on recommended dietary allowances of nutrients among nurses in the Narayana Medical College Hospital, Nellore.

Detailed Research Plan

This cross-sectional study was conducted using structured questionnaire. A total of 100 samples from this cross sectional study was carried out in Narayana Medical College and Hospital of Nellore district. The target population of this study consisted of all staff nurses who meet the inclusion criteria like who are between 20-60 years, who are available during the data collection time.

The target population of this study consisted of 100 staff nurses. Sample size was calculated to estimate the knowledge on recommended dietary allowances of nutrients among nurses investigated in the survey, considering a confidence level of 95%, prevalence for the unknown outcomes of 50%, sampling error of 3 percentage points, percentage of losses estimated at 10%. Based on these parameters, we obtained a sample size of 100 staff nurses. For association tests, considering an estimated knowledge of the outcome of 50%, 80% power and 95% confidence level, this sample size would allow detecting as statistically significant a knowledge ratio of up to 1.4 as a risk factor and up to 0.6 as protective factor for both genders.

Tools for Data Collection

SECTION A: It deals with demographic data including age, Educational status, Religion, Source of knowledge, Gender, Marital status, Source of information, Attended computers course, No. of times attended and Designation.

SECTION B: The tool consists of 30 questions to assess the knowledge regarding computer among nurses. The nutrition knowledge level of doctors and nutritionists was determined using the same questionnaire. It included two sections: essential nutrition (general) and clinical nutrition. A questionnaire consisting of 59 multiple-choice questions was used to assess the nutrition knowledge of nurses. The questions were adapted from similar researches and valid scientific contents[9]. The content reliability, face validity and content validity of the questionnaire was then assessed by a panel of knowledgeable and experienced specialists in Nutrition for an acceptable accuracy. The Format of the questionnaire was similar to common exams that clinical staff and nutritionists deal with them. The questionnaire covered two major topics; essential nutrition and clinical nutrition. The questions were arranged in 9 different subject groups as follow; RDA of fibre, salt, calcium, protein, saturated fat, general clinical nutrition and clinical nutrition in gastrointestinal diseases, cardiovascular diseases, diabetes, obesity, and cancers. The questionnaires were given to the nurses of the hospital to mark their answers. The questionnaires were collected at the end of the working day.

The calculation of nutrition knowledge and awareness scores was calculated giving one point for each correct answer.

Data Collection Procedure

This cross-sectional study was conducted in Narayana Medical College and Hospital of Nellore district during 2016. This study comprises of both male and female staff between 20-60 years, staff on leave and are not willing to participate and to give informed consent were excluded from the study.

Institutional ethics committee approved the study tool. Written informed consent was obtained from participants.

RESULTS AND DISCUSSION

A total of 100 staff nurses were participated in the study. Of these adults, most were females (82%), and males were (18%). The table 1 shows the socio demographic profile of the staff nurses.

Table 1 Frequency and percentage distribution of sociodemographic data. (N=100)

Sl.No.		Demographic Variables	Frequency	Percentage	Total
1		Age			
	a.	21-25yrs	69	69%	
	b.	26-30yrs	16	16%	
	c.	31-35yrs	10	10%	100%
	d.	>35 yrs	5	5%	
2		Sex			
	a.	Male	18	18%	
	b.	Female	82	82%	100%
3		Educational qualification			
	a.	ANM	20	20%	
	b.	GNM	13	13%	
	c.	BSC	67	67%	100%
4		Nursing Experience			
	a.	1 yr	75	75%	
	b.	1-3 yrs	3	3%	
	c.	4-6 yrs	6	6%	100%
	d.	> 6 yrs	16	16%	
5		Marital status			
	a.	Married	36	36%	
	b.	Unmarried	64	64%	100%

Table 2 Level OfKnowledge on Recommended Dietary Allowances Of Nutrients Among Staff Nurses (N=100)

LEVEL OF KNOWLEDGE					
C		B		A	
No	%	No	%	No	%
23	23%	65	65%	12	12%

The above table shows that 23% of staff nurses having C grade knowledge, 65% of staff nurses having B grade knowledge, and 12% of staff nurses having A grade knowledge.

The present study results are consistent with the findings of the previous studies [10].

DISCUSSION

The present study made a preliminary attempt to determine the Knowledge on recommended dietary allowances of nutrients among staff nurses. In the present study 23% of staff nurses having C grade knowledge, 65% of staff nurses having B grade knowledge, and 12% of staff nurses having A grade knowledge.

In the current study, the mean general knowledge score was 15.72 with the standard deviation of 4.91. Studies on the nutrition knowledge level of nurses are mostly performed in the

USA and Australia. In 3 studies on rural nurses (1990), elderly nurses (1994), and graduated nurses (1997) the mean nutrition knowledge score was 65%. Among Australian nurses, older ones and those with more years of experience scored higher average knowledge[10].

Nurses are in constant contact with patients and can communicate the patients' problems to the rest of the medical team. Nurses constantly receive nutrition request and give nutrition advice in a study, 91% of nurses reported that patients constantly ask their nutrition questions from them and have nutrition-related requests[12]. The mean knowledge score in the majority of studies supports the data that nurses at different levels have insufficient nutrition knowledge.[13-19]The present study results are consistent with the findings of the previous studies [20&21].

CONCLUSION

Knowledge on recommended dietary allowances of nutrients among staff nurses was found to be very low. Nurses are the persons responsible for nutritional care of patients in hospitals. They do receive nutrition requests and do give nutrition advice to patients. Our findings indicated that the nutritional knowledge levels of nurses is not satisfactory. Increased nutrition knowledge seems to improve nutrition practice. To improve nutritional care in hospitals effective nutrition training and continuing education for all staff involved in nutritional care of patients has to be addressed as a priority.

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