

AN EVALUATION OF NUTRITIONAL KNOWLEDGE OF NURSING STUDENTS

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INTRODUCTION

Physicians Nurses and other health workers assume varying responsibilities of individual and public welfare, play a vital role in health education inclusive of nutrition education of the community. Particularly Nurses while carrying out their responsibility in hospitals have many opportunities to extend their help not only to the patient but also to their families. Hence in addition to the health care she can be a guide with regards to nutrition education.

In the community the Nurse is often co-ordinator of many types of health services. She may have to instruct mothers, school children as well as administrators and workers in the field of social welfare regarding various aspects of health disorders inclusive of nutrition. Therefore, she should have good and sound nutritional knowledge to help the community at large.

The purpose of the present survey is to evaluate nutritional knowledge of student Nurses who have already finished nutrition courses in their studies. The trainees at both the centres at Mysore city namely Krishna Rajendra Hospital and Mission Hospital were included for the study.

METHODOLOGY

The survey was carried out with the help of a written questionnaire. The questions were based on the syllabi of Nurse training. The questionnaire included the various aspects of nutrition such as Basic Food Groups, Nutritional disorders, Food sources of important nutrients, Requirement of certain nutrient, Effect of home processing on nutrient composition, Infant nutrition and dietary treatment of certain diseases of public importance. The questionnaire was pre-tested before the survey.

There were a total number of 125 students undergoing Nurse training at both the centres. The data could be collected from 108 students as the rest were out of station at the time of investigation. The copies of questionnaire were distributed to the students and were requested to answer them in the presence of investigator, further they were instructed not to refer to the books or discuss with their classmates. There

was no time limit set to answer the questionnaire. The students took approximately 20 to 45 minutes to fill in the questionnaire. The answered questionnaire were collected back immediately followed by hand tabulation and evaluation.

RESULTS AND DISCUSSION

Results are discussed under the following sections:

1. BASIC NUTRITION

The knowledge regarding the basic food groups and their nutritional contribution was nil among the student nurses since, all of them have answered the relevant question erroneously. However they mentioned individual food items and their nutritional content.

Kwashiorkor and Marasmus as two types of calorie-protein deficiency diseases seen among Indian children have been mentioned by about 57 and 27 per cent of the students respectively. Only 47 students were aware of the fact that anaemia is the most common mineral deficiency disease which occurs among pregnant mothers and small children. However majority of them (95 per cent) knew that night blindness is caused by vitamin 'A' deficiency.

Table I gives an idea of the knowledge of the Nurses about the nutritional values of greens. It is evident that the significant number were aware that greens provide calcium, iron and vitamin 'A'. However, vitamin 'A' as such is not present in plant materials. Instead carotene, precursor of vitamin 'A' is present widely in nature. Being professionals in health care, nurses ought to have had the knowledge about vitamin precursors. In addition, none of them have mentioned that greens are good sources of folic acid although about 27 per cent have mentioned vitamin 'B' present in greens. Such a general answer cannot be accepted from Nurses. They should have been aware that there is no one vitamin called 'B'. It is a group of vitamins classified as 'B'-complex. The nature, functions, sources vary from one another. Greens are the most practical and rich sources of folic acid (one of the 'B' vitamins) in Indian dietary especially important for pregnant mothers.

TABLE-I
NUMBER AND PERCENTAGE OF STUDENTS MENTIONING THE NUTRIENTS CONTRIBUTED BY THE GREENS

Minerals	Number and percentage	Vitamin	Number and percentage
Iron	55 and 51%	Vitamin 'A'	50 and 46%
Calcium	54 and 50%	" 'B'	29 " 27%
Sodium	5 " 5%	" 'C'	13 " 12%
Potassium	5 " 5%	" 'K'	11 " 10%
Phosphorus	4 " 5%	" 'E'	5 " 5%

It is a happy finding that a greater number of students have given correct answers regarding the rich sources of calcium, ascorbic acid and carotene. Ragi, guava and papaya as a rich source of calcium, ascorbic acid and carotene were mentioned by 84, 64 and 63 percentages of the subjects respectively. Similarly milk is a poor source of iron has been mentioned by 68%. It was shocking to know that all the student Nurses except six of them have stated that "sun light is a rich source of vitamin 'D'." They were ignorant about the fundamental fact that the ultra violet rays of the sunlight convert 7-de-hydro-cholesterol present underneath the skin into vitamin 'D'. On the contrary only a small percentage did not know that sprouting increases the nutrient content of pulses.

More than 50 per cent of the students were ignorant of the cause of fluorosis, which is an important public health problem especially in areas where ground water is used.

Regarding the other aspects of basic nutrition great majority of the student population studied knew the importance of protein throughout life span. A fair number of them also knew that there are eight essential amino acid in human nutrition. Similarly about 78 per cent of them have mentioned that vitamin 'C' increases the intestinal absorption of iron. This knowledge undoubtedly help them in treating anaemia. However, only few of them (27 per cent) knew that the requirement of 'B' complex vitamin depend on total calorie content of the diet.

2. INFANT NUTRITION:

Secretion of yellow fluid for two to five days after delivery is called colostrum. It is very nutritious and an ideal food for the infant. It is low in fat and rich in protein, vitamin 'A' and antibodies, which play a vital role in local immunity in the gastro intestinal tract of the new born. Unfortunately, as revealed by many studies, mothers in different community of our country

discard colostrum, believing it to be dirty and poisonous. In the present study less than 50 per cent of the students were not aware of the importance of feeding colostrum during the neonatal period. The knowledge about the age at which the supplementation to be started varied considerably among the students surveyed. Table II gives details regarding this aspect.

TABLE-II
KNOWLEDGE OF STUDENT NURSES REGARDING SUPPLEMENTARY FEEDING

Age at which supplementation can be started	% of students giving the answer
Before 3 months	16%
3 — 4 "	31%
4 — 5 "	13%
5 — 6 "	41%

3. THERAPEUTIC NUTRITION:

Nurses who directly deal with the patient care should have excellent knowledge about diet therapy so that they can help the patient to understand the basis of the dietary treatment and educate them regarding the continuation of treatment after getting discharged from the hospitals. Results of the present survey revealed that students did not have thorough knowledge of therapeutic nutrition.

In the dietary treatment of diabetes, a common disorder, majority (85%) were not aware of the fact that sucrose can be substituted by fructose. Unlike other carbohydrates, fructose does not require insulin for its absorption into the cell as well as for its metabolism. Although the student population knew that obesity pre-disposes to many disorders (hypertension, heart diseases, diabetes and renal failure), they were not aware of the serious consequences (ketosis) of starvation, which is practised sometimes in the treatment of severe obesity for short period.

It is a happy finding that significant number of the student nurses knew the value of high fibre diet in the treatment of constipation (79 per cent), liquid diet and use of electrolyte in the control of diarrhoea (100 per cent) and ill effect of fasting during fever (83 per cent).

SUMMARY AND CONCLUSION

The purpose of the present survey was to evaluate the nutritional knowledge of student nurses in Mysore city. Their knowledge regarding certain aspects of basic nutrition, infant nutrition and therapeutic nutrition were studied with the help of a questionnaire.

The results revealed that they do not have the needed knowledge in various aspects of human nutrition, which may hinder their performance as effective professionals.

It can be concluded that much emphasis needs to be given for nutrition in the curriculum of nurse training. In addition, they should be introduced to the simple literature on nutrition published by NIN and other institutions. The present study calls for evolving leaflets/pamphlets and booklets suitable for distribution among health professionals by the nutritionists and home scientists. They should organise short term course (one-three days) in nutrition specially meant for nurses. Since nurses and health professionals can hardly devote enough time solely for nutri-

tion aspect, it is the moral duty of the nutritionists to motivate and enlighten them about the current trends in nutrition.

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The Department of Continuing and Adult Education, S.N.D.T. Women's University, Bombay-20 in collaboration with the Burns Association of India is conducting a short term Refresher Course in Burns Nursing for trained nurses from January 19th to 31st, 1981. The course is of two weeks duration to be conducted at L.T. College of Nursing, S.N.D.T. Women's University, 5th Floor, Patkar Hall Building, 1, N. Thackersey Road, Bombay-20. Admission to this course is limited to 40 nurses on first come first serve basis. For further details contact:

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