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Research Paper

Cross Sectional Study: Assessing Knowledge Regarding Nutrition,Their Eating Habits and Confidence of Interns & Postgraduates in Formulating Diet of Patients in B.j.medical College, Ahmedabad

Medical Science

KEYWORDS : Nutritional knowledge, confidence, dietary assessment, patients

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ABSTRACT

INTRODUCTION: Nutrition is an important component in the treatment of acute and chronic diseases. Despite the acknowledged importance of nutrition, there is evidence to indicate that the nutrition training of medical students is inadequate in both quality and quantity.

Material and methods: A cross sectional study done by using a pretested and predesigned questionnaire with multiple choice options from sep 2013 to dec2013 among 98 interns and 72 post-graduate residents of medicine department, community-medicine & surgery department of B.J.Medical College, Ahmedabad.

Result: 77.8% of postgraduates have healthy eating habits compared to 85.7% of interns. 66.7% of postgraduates have more knowledge compared to 46.9% of interns.84.7% of postgraduates are confident in diet assessment of patients compared to 24% of interns. Knowledge for dietary assessment of pregnant and lactating woman is higher in both groups(26-66%)compared to post-operative patient(8-28%).75% of postgraduates say that medical curriculum for nutrition is sufficient, p= 0.0012(S) .55-58% were of opinion to train the faculty for nutrition followed by having separate department for nutrition(36-43%).

INTRODUCTION

Nutrition interferes significantly and relevantly with every field of medicine[1]. It remains the cornerstone in strategies for disease prevention and health promotion[2]. Despite the increased emphasis on diet-related diseases, nutrition education remains lacking[3] in many internal medicines training programs[4]. It is well established that nutrition has a vital role in our health care system and that our medical training programs are the key to preparing health professionals for this role[5]. The physician is regarded as a nutrition educator by the general public[6] and is expected to have adequate knowledge of nutrition to be able to make appropriate dietary recommendations. On the other hand, practicing physicians' knowledge of nutrition may be inadequate[7], which is likely to be a reflection of the low priority given to nutrition education in medical colleges[8].

The intent of the study was to obtain a preliminary understanding of the relative levels of nutrition knowledge of graduating medical students of B.J.Medical College, Ahmedabad. The relationships among knowledge level, curriculum organization, teaching requirements, and medical student attitudes towards nutrition were also assessed. This information can be utilized to strengthen nutrition teaching in various medical colleges based on their identified strengths and weaknesses.

OBJECTIVES: The study is done to collect baseline data about the dietary/eating habits of medical students, assess their knowledge on nutrition and to assess their confidence in addressing the dietary issues of patients.

Materials and Methods:

It was a cross sectional study. Total 170 interns & postgraduates participated in the study voluntarily. Out of total 170 participants, 98 were pursuing their internship & 72 were doing post graduation (2nd year) in community medicine department, medicine & surgery department of B.J.Medical college, Ahmedabad. They were given a pretested and predesigned questionnaire to assess their nutrition knowledge, eating habits & dealing with patient's diet. The participants aged between 22 to 26 years who were enrolled for the study.

The questionnaire contained multiple choice questions. It contained questions such as habit of eating breakfast, consuming milk, fruits and green leafy vegetables. Each question had the following options as replies: 'Consumes it (this product) daily "almost every day or alternate day'," once in a while' or 'does not consume it'. The specific eating habits replies classified as frequent were "consumes daily or almost every day" and as infrequent were"consumes once in a while or does not consume". More frequent the habit of eating breakfast, consuming milk, fruits and greens and the less frequent the habit of consuming soft drinks and snacks then the eating habits were considered healthy. Otherwise the eating habits were considered less healthy.

The level of knowledge in nutrition was assessed by means of questions on knowledge concerning foods which are sources of fibers, fats, vitamins, minerals and energy, as well as knowledge concerning healthy foods. In reply to these questions, aside from the alternative "I don't know", there was choice from multiple answers. Each question answered correctly was awarded one point. Wrong answers and "I don't know" did not receive scores. The cores varied from zero to 15. The variable level of nutritional knowledge was categorized in"more knowledgeable" when the score was equal to or above the 75th percentile (≥12 correct replies) and "less knowledgeable" when the score was below the 75th percentile (<12 correct replies).

Data coding and editing was done manually and entry was done in Microsoft excel 2007. Data analysis was done by EPI info. Means and standard deviations were calculated. Chi-square test was used to test the Statistical association of qualitative data.

RESULTS In this study 114 participants were male and 56 participants werefemale.

TABLE: 1- Age Distribution

AGE (YEARS)	INTERNS(n=98)	POSTGRADUATES(n=72)
22-24	71(72.5%)	7(9.7%)
24-26	22(22.4%)	53(73.6%)
26-28	5(5.1%)	12(16.7%)

TABLE: 2-DISTRIBUTION OF INTERNS & P.Gs ACCORDING TO EATING HABITS, KNOWLEDGE AND CONFIDENCE LEVELS IN ASSESSING DIET OF PATIENTS.

PARAMETERS	INTERNS (n=98)	POSTGRADUATES (n=72)	P value
EATING HABITS			
HEALTHY EATING HABITS	84(85.7%)	56(77.8%)	0.2510(NS)

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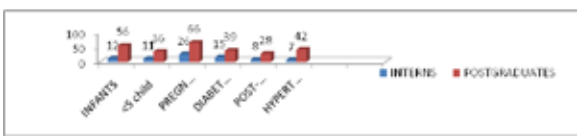
LESS HEALTHY EATING HABITS	16(16.3%)	16(22.3%)	
KNOWLEDGE LEVEL			
MORE KNOWLEDGEABLE	46(46.9%)	48(66.7%)	0.0043(S)
LESS KNOWLEDGEABLE	52(53.1%)	24(33.4%)	
CONFIDENCE IN ASSESSING AND RECOMENDING CHANGE IN DIET OF PATIENTS			
CONFIDENT	24(24.5%)	61(84.7%)	0.0001(S)
LESS OR NOT CONFIDENT	74(75.5%)	11(15.3%)	

OBSERVATION: 77.8% of postgraduates have healthy eating habits compared to 85.7% of interns .66.7% of postgraduates have more knowledge compared to 46.9% of interns.84.7% of postgraduates are confident in diet assessment of patients compared to 24% of interns.

FIGURE: 1-SHOWING GRAPHICAL REPRESENTATION OF KNOWLEDGE OF INTERNS & P.G.s REGARDING DIET FORMULATION OF IN VARIOUS CASES.



OBSERVATION: Overall knowledge of postgraduates regarding diet formulation of patients is good compared to interns. Knowledge for dietary assessment of pregnant and lactating woman is higher in both groups(26-66%)compared to post-operative patient(8-28%).

TABLE: 3-SHOWING RESPONSE OF MEDICAL STUDENTS ABOUT NUTRITION EDUCATION IN MEDICAL COLLEGE

RESPONSE OF MEDICAL STUDENTS ABOUT NUTRITION EDUCATION IN MEDICAL COLLEGE	INTERNS (n=98)	POSTGRADUATES (n=72)	P VALUE
IS MEDICAL CURRICULUM SUFFICIENT			
YES	46(46.9%)	54(75.0%)	0.0012(S)
NO	52(53.1%)	18(25%)	
SUGESSTIONS TO IMPROVE LEARNING IN NUTRITION			
TRAIN THE FACULTY	54(55.1%)	42(58.3%)	
HAVE SEPARATE DEPARTMENT FOR NUTRITION	42(42.8%)	26(36.1%)	
INCREASE TEACHING HOURS IN NUTRITION	2(2.1%)	4(5.5%)	

OBSERVATION:75% of postgraduates say that medical curriculum for nutrition is sufficient.

Majority are of opinion to train the faculty (55-58%) followed by having separate department for nutrition (36-43%).

DISCUSSION

The knowledge in nutrition was assessed among medical students and it was observed that 45 % were less knowledgeable and 55 % of them were more knowledgeable. Similar findings on the knowledge of doctors in Hissar (Hariyana) were observed by Suneja and Bhat[5] Also in this study the postgraduates (48%) wer more knowledgeable in comparision to interns (46%) and this was found to be statistically significant ($p<0.01$). These findings are in agreement with those of study conducted by Kartik et al[6] who found that the baseline knowledge of intern doctors was lower as compared to postgraduate doctors.

This study demonstrates that more than half of the interns were less confident to assess the diet and recommend a change in patient's diet.In a similar study done by Conroy et al[3] among medical students atHavard Medical School revealed that the students' baseline confidence in their ability to assess and counsel about diet and exercise was low.

The majority of medical students participating in this study felt that their medical-nutrition education programs were inadequate in terms of both quantity and quality. In this study majority of students (56%) suggested that the faculty should be trained,46 % asked for separate department and 3% of them recommended increase in teaching hours. Similar finding by Boker et al underscore the need of having qualified and active nutrition faculty members for training future clinicians. The findings of our study were in contrast to a study done by Roland L Weinsier, according to which 59% of the students were of opinion that nutrition training was "very important "to their careers. Overall this underlies the need for curriculum notifications to improve competence in area of nutrition teaching.

Conclusion: This study concludes that Nutrition topic should be included in medical curriculum from the first semester so that by the time one becomes intern and does post graduation in any field he should have sufficient knowledge regarding healthy eating habits and confidence for diet formulation of patients. Study also highlights the intervention that there should be trained faculty and separate department for teaching nutrition. The study recommended that On the whole the evidence from the study clearly indicate that nutrition should be the part of medical curriculum in all semesters to increase awareness about major nutrition related health problems and basics of nutrition.Conducting C.M.E over nutrition.Teaching nutrition in interesting way.

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