

Survey of nutrition instructors' viewpoints toward nutrition education in medical schools

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ABSTRACT

Background: Although nutrition has a very important role in individual and society's health and disease, it has not yet received proper attention in the curriculum of medical schools.

Objective: To assess the opinions of nutrition instructors in medical schools and universities about nutrition education.

Methods: In this descriptive survey, a questionnaire was prepared and sent to all nutrition instructors and they were asked to fill the questionnaire and send it back. Statistical analysis was performed on received answers.

Results: Almost all instructors believed that nutrition education is not satisfactory in medical schools. They also announced that the physicians' ability in screening nutritional diseases, diagnosing patients' nutritional problems, presenting nutritional guidelines to their patients, providing useful nutritional guidelines to the healthy population, and providing nutritional consultation to their patients is restricted. The graduates are also not familiar with specific nutritional cares for each disease.

Conclusion: The results show that nutrition education is not enough in our country. It seems that horizontal and vertical integration of nutrition education in medical curriculum can be an effective way to increase physicians' skills in nutrition.

Keywords: NUTRITION EDUCATION, MEDICAL SCHOOL

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Introduction

Nutrition has a very important role in most pathophysiologic states including diabetes mellitus, cancers and cardiovascular diseases (1-3). A considerable share of burden of mortality and morbidity - such as cardiac diseases, cancers, diabetes mellitus, stroke, myocardial infarction and hypertension- is due to diseases that can be related to the individual's nutritional state (4). From ten main causes of mortality in the US, eight have a direct or indirect dependence on diet (3-5). Thus, nutrition has a significant role in society's health state and the health system. Nutritional interventions that improve the quality of diet and also improve the intake of essential nutrients can alleviate and in most cases prevent the pain, illness and complications caused by chronic diseases. These interventions are also effective in decreasing individual and society's health costs (6, 7).

However, the importance of the course of nutrition does not receive enough acknowledgment in the curriculum of medical schools (6, 8-10). Studies performed in the US show that nutrition training is not enough in medical schools

and only 33 eminent schools (26%) provide adequate nutrition training for their students (7, 9). The National Academy of Science research on physicians' nutrition education revealed that this course is unsatisfactory in American medical schools. Although the course is presented in most schools, it is a voluntary course and is often not chosen (10).

Several factors restrict the integration of nutrition education in the curriculum of medical schools including the resistance of educational institutes because of lack of knowledge among the managers and heads of departments, resistance of medical associations especially medical boards, inefficiency of educational programs and lack of educational references (11,12). Although it is well known that the physicians' skills in clinical nutrition is a critical factor in their practice, the educational programming committees in most medical schools don't show any interest in nutrition education. Nutrition consultation is one of the most important and effective available tools for preventing many destructive diseases (13). It might seem that nutrition has little significance in the treatment of acute diseases in hospitals -where the students spend most of their time-, but those

physicians who have experience in clinical practice are greatly aware of the importance of nutrition. In an expanded survey in private offices, 68% of the physicians reported that nutrition education was not sufficient in school and 86% believed nutrition education must be provided more effectively. There is a significant relation between the level of nutrition education in medical school and using nutrition consultation in clinical practice (14).

This survey was conducted in order to assess the opinions of nutrition instructors in medical schools and universities about nutrition education in these schools.

Materials and Methods

This descriptive study was designed to analyze the viewpoints of the nutrition instructors toward nutrition education. In order to do so, a questionnaire was prepared and sent to all medical universities after determining its validity and reliability. All nutrition instructors were requested to fill the questionnaire and send it back. At the end, statistical analysis was performed on received answers.

Results

Of 22 questionnaires, 16 (72.7%) were answered and sent back. Among these instructors, 14 (87.5%) believed that the content of nutrition course in medical schools is not enough for physicians and all of them agreed to increase

nutrition education. The best period for this course is the basic science stage, clinical science stage, internship, residency, and all stages in the viewpoints of 21.4, 20%, 33.3%, 6.2% and 33.3%, respectively (Fig. 1).

The respondents believed that the most important nutritional knowledge that our graduates lack are diet therapy (45.5%), epidemiology (25%), malnutrition diseases (20.9%) and principles of nutrition (8.3%).

Of all instructors, 6 (37.5%) announced that the best place to teach nutrition is the classroom and 4 (25%) and 1 (6.2%) preferred bedside and conference room, respectively.

Concerning the medical school graduates' ability in providing various nutritional services (Fig. 2), 4 instructors (25%) believed that the physicians are competent enough to screen nutritional disease, but 9 (56.2%) had the opposite opinion and 2 (12.5%) had no comment on the subject. All respondents asserted that the physicians are not able to provide nutritional consultation to their patients. Also, 10 (62.5%) believed that they cannot even diagnose the patients' nutritional problems, but 4 (25%) were optimistic on the subject. Moreover, only 3 instructors (18.8%) believed that the physicians have the ability to present nutritional guidelines to their patients, and the majority (81.3%) had the opposite idea. Of 16 respondents, 10 (62.5%) suggested that our physicians cannot provide useful nutritional guidelines to the healthy population, but 4 (25%) did not agree with this opinion.

FIGURE 1. The instructors' opinion about the best stage for nutrition education (%)

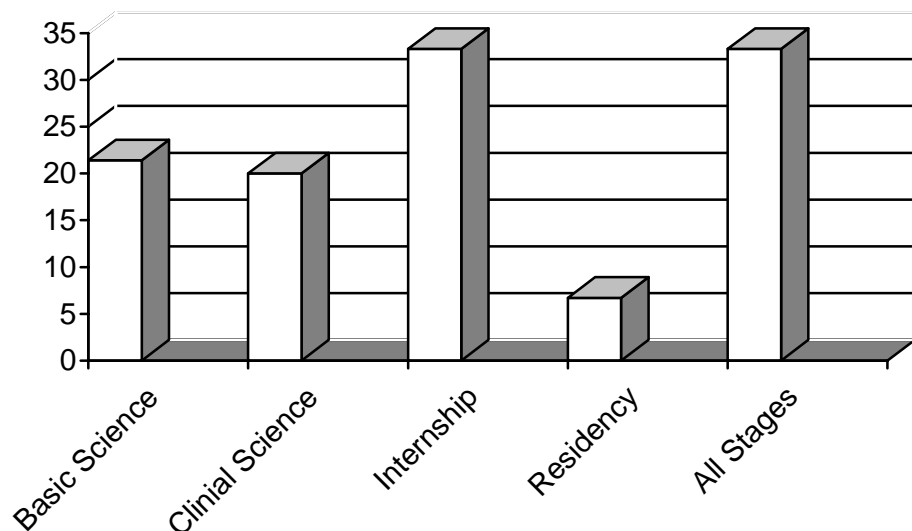


FIGURE 2. The instructor’s opinion about physicians’ ability in providing nutritional service (%)

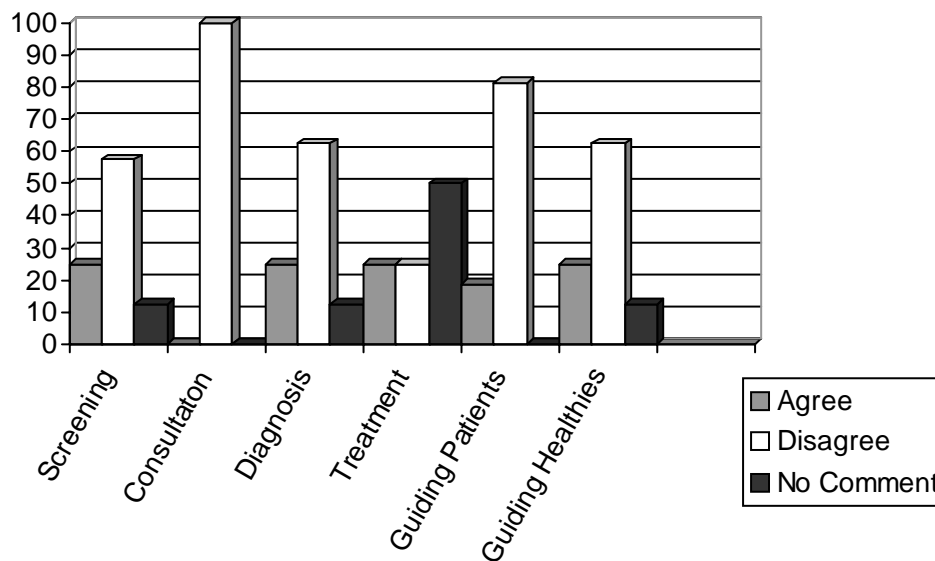
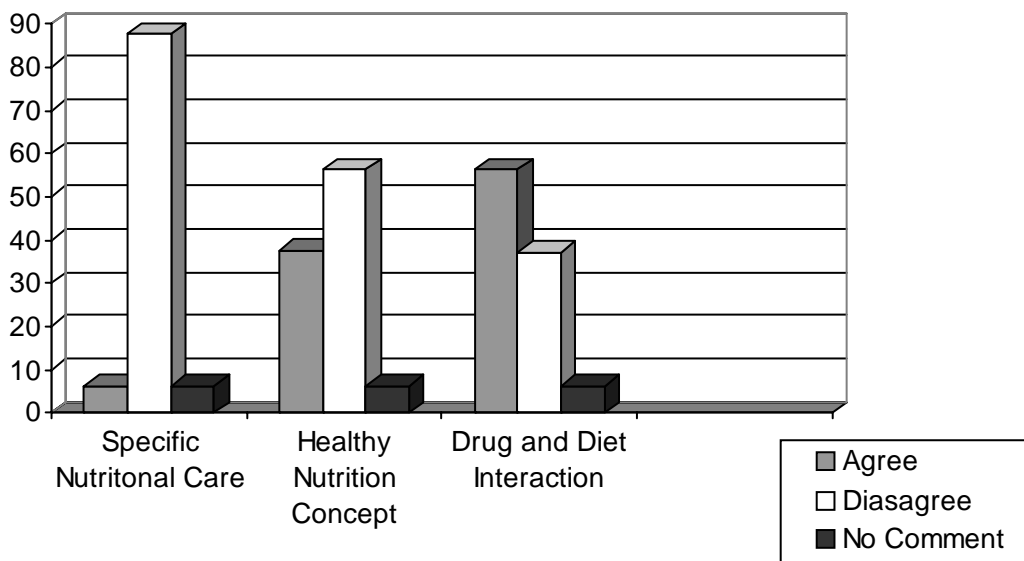


FIGURE 3. The instructors’ opinion about students’ knowledge of nutritional concepts (%)



Almost all instructors (87.5%) believed that the general practitioners who are graduated from our medical schools are not familiar with necessary nutritional cares for each specific disease. The graduates don't have enough knowledge about the concept of healthy nutrition and the interactions between drugs and diet in the viewpoint of 9 (56.3%) and 2 (12.5%) instructors, respectively; but 6 (37.5%) and 9 (56.3%) had the opposite opinion.

Discussion

In recent years there has been a growing attention to nutrition and its role in health and disease in most nations. In many article (15, 16), symposiums (17-19) and even national Congresses (20), it has been recommended that physicians’ nutritional knowledge should be enhanced as they have a great role in population health. Unfortunately, however, it can often be seen that educational

programming authorities don't pay attention to nutrition education and only a few universities have a complete and sufficient course for nutrition (21). In 1990, US Congress legislated that all medical students, residents and practicing physicians must have adequate training on nutrition and other related health science (22); but still only 1.4% of medical schools provide adequate nutrition education for their students and half of these schools present the nutrition course voluntarily and only 6% of the students choose the course (23, 24).

In our country, nutrition education has also not received proper attention and our survey's results show that nutrition education is not enough. Considering the role of physicians in maintaining society's health and the role of nutrition in health and disease, nutrition education should be increased in medical schools. It's emphasized that the content of this course especially in the field of diet therapy and malnutrition diseases, and also the education method in different stages especially in clinical education stage should be changed. Also, the physicians' ability in providing nutritional services to healthy and patient individuals should be promoted and they must have enough nutritional knowledge to provide necessary information for healthy and patient.

Horizontal and vertical integration of nutrition education in medical curriculum can be an effective way to increase physicians' skills in nutrition. We hope that medical education programming authorities pay attention to this kind of integration.

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