KNOWLEDGE OF NURSES REGARDING NUTRITIONAL MANAGEMENT OF DIABETES AT MAYO HOSPITAL LAHORE

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Abstract:
Introduction: Diabetes mellitus is a complex metabolic disorder having systemic involvement and manifestations resulting in crippling complications. Modifying personal life style with reviewing eating habits are the integral parts of managing diabetes promptly. The aim of this study is to evaluate knowledge about the role of nutritional management in diabetics among nurses of Mayo Hospital Lahore. Methods: A descriptive study was conducted among 120 nurses working in different departments of Mayo Hospital Lahore. A self structured survey questionairre was used to record the responses from the participants. Data was analyzed by SPSS 21. Results: The findings of the study revealed that most of the respondents had heard the term balanced diet early in their lives 96 (82.0%), while 24 (18.0%) had not heard it before. About 114 (95.0%) participants agreed to the fact that it is healthy to comply to a balanced diet plan on regular basis. Most of them 114 (95.0%) knew the value to include whole grain cereals and roughage in their diet chart. About participants 90 (75.0%) were aware of the natural and artificial sources of carbohydrates and 36 (30.%) of them were not aware of their origin. Discussion: Although majority of the participants 96 (82.0%) have heard about balanced diet, there are still a few of them who do not follow diet plant themselves frequently at home [5]. According to Juma Al-Kaabi et al (2008), consuming healthy food is a major component for managing all forms of diabetes mellitus, occuring either due to the lack of production insulin resistance, and preventing the serious complication. The aim of dietary modifications is to restore quality of life, caloric management, and preventing long standing hazardous outcomes. [6]. According to a study conducted by Rivellese A A (2007) in Italy concluded that compliance to a comprehensive diet plan is not merely the tuning of dietary components but also the interpretation of the importance of balanced diet. [7] Conclusion: Public awareness regarding general and preventive health is the cornerstone of treating metabolic diseases such as diabetes. Education programmes focused on the treatment through food, dietary allowances and recommended caloric intake can provide for a platform for long term desired diabetic control and bridle the involvement of systemic complications.

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INTRODUCTION:

Diabetes Mellitus is known as a silent killer because mostly it remains masked until the patient presents with some of the most troublesome manifestations like micro and macro vascular complications etc. Patients as well as healthcare workers knowledge is essential for providing the state of the art patient care minimizing the disease burden and its sequelaes.International Diabetes Federation has labelled over 20 million diabetic patients currently present in Pakistan.

The American Diabetes Association recognises the integral role of nutrition management in comprehensive diabetes management plan and recommends that each person should receive an individualized diet plan developed according to its physiological needs after proper consultation with his physician [2].

Previous studies have reiterated that dietary patterns of the patients are regulated by patients perception about the disease process .

According to WHO, globally 2.3 billion adults are likely to become overweight and more than 700 million going to be obese by the end of 2015 [3]. A balanced diet makes a difference not only to manage diabetes but also help to manage the caloric intake. Therefore every patient should be aware of the importance of nutritional therapy. A study conducted in China (2015) by Jingran Cao et al, depicted that only 54.10% of diabetics believe the diet to be reasonable and balanced. The awareness rate was 8 in 10 patients and lacked understanding about balanced diet [4]. A baseline study conducted by in Delhi (2012) by Kishore J et al, showed that only 1.85% diabetics are following the recommended diet plan regularly at home [5]. According to Juma Al-Kaabi et al (2008), appropriate dietary practices are a basic and integral component of managing and treating complications in all patients of diabetes. The goal of nutritional management is to maintain quality of life, nutritional intake and and to check the long-term fatal complications [6]. Nurses being the integral part of the health care model can serve as a source of information and treatment plan for the patients coming for follow up visits.

MATERIALS AND METHODS:

It is a descriptive survey based study to evaluate the knowledge of nutrition management in diabetics among nurses of Mato Hospital Lahore. The subjects were both men and women chosen randomly from the different departments of the hospital. A self structured questionnaire consisting of socio-demographic details and knowledge regarding diet plan for diabetics was designed to record the response. A formal approval was taken from the ethical review committee. A total of 200 nurses were enrolled through convenient sampling after seeking informed consent.

Confidentiality and privacy was maintained.Statistical data was analyzed by SPSS 21.

TABLE.1 AWARENESS OF BALANCED DIET AMONG PARTICIPANTS (N=200)

Knowledge and Awareness of Balanced Diet	Yes n(%)	No n(%)
Have you ever heard about the term balanced diet?	152 (76.0%)	48(24.0%)
Do you it is important to consume balanced diet daily?	194 (97.0%)	6 (3.0%)
Do you know the portion of fruit/vegatable one should eat everyday?	134(67.0%)	66 (33.0%)
How important fruits and vegetables are in daily diet?	196 (98.0%)	4 (2.0%)
How essential are fats to be consumed daily?	34 (17.0%)	166 (83.0%)
How essential is to consume low fat diet/products?	148 (74.0%)	52 (26.0%)
Do you know the names of types of fats?	140 (70.0%)	60 (30.0%)
Do you prefer lean meat?	130 (65.0%)	70 (35.0%)
Are unseasoned ground nuts good to eat?	172 (86.0%)	28 (14.0%)

Do you know what a starchy food is?	164 (82.0%)	36 (18.0%)
Is it healthy to eat starchy food?	134 (67.0%)	66(33.0%)
Is your diet based on the starchy food item?	68 (34.0%)	132 (66.0%)
Is it essential to add cereals/whole grains/roughage in your diet?	188 (94.0%)	12 (6.0%)
How much sugar should be consumed in a day?	96 (48.0%)	104 (52.0%)
What is the proportion of carbohydrates that make up our daily requirement?	104 (52.0%)	96 (48.0%)
Do you know natural edible sources of carbohydrates?	54 (27.0%)	146(73.0%)
What is DASH diet?	48 (24%)	152 (76%)
How much salt should be taken each day?	124(62%)	76 (38%)

RESULTS:

The total numbers of participants in the study were 200. The demographic data of the participants shows that among the 200 participants, 88(44.0%) belonged to the age group of 20-30 years, 52(26.0%) between 30-40 years, 24(12.0%) between 40-50 years and 36(18.0%) belong to the age of 50 years and above. More females 148(84.0%) participated than the males 52(16.0%) in this study. The highest number of participants have completed their Diploma 104 (52.0%) followed by Bachelors 76 (38%) and 20 (10%) had Masters Degree.

Table.1 shows the response to the survey questionnaire on awareness of balanced diet. Majority of the participants have heard about balanced diet 152 (76.0%), while 28 (24.0%) have never heard about this term before. About 194 (97.0%) participants think that it is important to consume balanced diet daily.

There were 134 (67.0%) who knew how much portions of fruits and /or vegetables should be taken every day. About 196 (98.0%) participants were aware that it important to eat fruits and vegetables in daily diet.34 (17.0%) of them responded that fats essential to be included in daily diet. There were 148(74.0%) participants who are aware that it essential to choose low fat products, and 52(26.0%) are not aware of it. 140(70.0%) know about the three kinds of fat. The numbers of participants who opt for lean cut of meats or remove visible fat are 130(65.0%). A majority of the participants 172 (86.0%) are aware that unsalted nuts and seeds are good to be included in their diet. About 164 (82.0%) knew about starchy foods. Whereas, 134 (67.0%) were not aware of its importance. About 68 (34.0%) of them responded that

there is no need to base the main meals around starchy foods. A majority of them 188 (94.0%) were aware that it is essential to include whole grain cereals and pulses in their diet. More than half of the participants 96 (48.0%) are not aware on how much of sugar should be consumed in a day. The participants who knew the daily requirements of carbohydrate were 104 (52.0%).

DISCUSSION:

Although majority of the participants 152 (76.0%) have heard about balanced diet, there are still a few of them who have not heard and understood the importance of balanced diet. As per a study conducted in Bijapur, Karnataka(2010), it was seen that the diet was considered to play an important role by 90.68% of the respondents. Khattab MS et al (1999) conducted a study in a Saudi Arabian community, and discovered that only 40% of diabetic patients had good adherence to their diet plan [8]. In the study done by Raj P& Angadi MM (2010), 80% of the respondents reported that they were conscious about their intake but the rest were consuming high carb beverages [9]. The study results are corresponding with Jingran Cao et al, which shows that only 54.10% diabetics were aware that about the diet to be balanced and reasonable [4]. Though 98 % of the participants realised the weightage of including fruits and vegetables in diet, 66 (33.0%) of them were not aware of the portions to be taken daily. 60 (30%) were not aware of the three kinds of fat, 104 (52.0%) did not know the daily requirement of carbohydrates, and 146 (73.0) were not aware of the food sources of carbohydrates. Only 24% knew the abbreviation of DASH diet and 62% knew the daily salt requirement. These results highlight the fact that there is still a deficiency of knowledge among the nurses regarding nutrition management to prevent both

short term and long term complications among diabetic.

CONCLUSION:

According to International Diabetes Federation (2019), almost 20 million people in Pakistan are suffering from diabetes and its complications. Koenigsberg MR (2004) stated that it is a time tested and proven fact that nutritional management and moderate exercise can prevent occurrence of diabetes and its complications [11]. The pivotal part of the treatment regime consists of a balanced diet. Starch and high carb diet significantly increases the risk of diabetes mellitus in any age group. Therefore it is important that the patients must be aware and possess sound knowledge regarding nutrition management and its application. Health education, diet and nutrition counseling sessions and adopting life style modifications should be incorporated into the management plans of diabetics to increase the effectiveness of the Interventions to sustain the wellbeing and preventing the crippling complications. Nurses being the frontline workers and care takers of the indoor and outdoor patients can play a supportive role for the dispensment of management plan and mobilization of psychosocial support system.

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